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JOHN LOUDON McADAM, COLOSSUS OF ROADS

by

Robert Harry Spiro, Jr.

A thesis submitted to the Senatus Academicus of the University of Edinburgh in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Faculty of Arts

Edinburgh

1950

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JOHN SONDON McADAM. Roadmaker. B.1756. – D 1836.

PREFACE

While preparing a lecture on nineteenth-century English economic history shortly after World War II, I learned that there existed no satisfactory life of John Loudon McAdam. This seemed surprising, in view of the immense popularity he attained in his own day, even leaving his name a legacy to the language symbolizing the tremendous progress achieved by his native country during a period of great economic flux. It then became my hope to present a study of McAdam for a doctoral dissertation if sufficient material could be found.

Professor Richard Pares, C. B. E., F. B. A., has from the very beginning given every encouragement to my efforts, and provided the mature direction which an inexperienced student requires. It has been a source of regret that the presence of an ocean barrier has denied me his periodic supervision during the past ten months.

Due to the fugitive nature of the source materials I have been compelled to write more than three hundred personal letters to individuals and institutions in Great Britain and the United States, and on the Continent. I have searched indexes and catalogs, advertised in the public press, and otherwise sought to exhaust every possible source of information. This search has led me from Perth to Bristol, in Great Britain, and from

New York to Bristol in America -- withal a most pleasant and comprehensive tour.

For the sake of consistency, and with the approval of Professor Pares, I have followed American methods of spelling and punctuation throughout. In matters of style I have observed the standards set forth in the American Historical Association's Manual of Style, prepared by Bertha E. Josephson (New York, 1940); where clarification has been required, I have used the University of Chicago's Manual for Writers of Dissertations, by Kate L. Turabian (Chicago, 1937).

For the use of family and private manuscripts I am deeply grateful to Mrs. Katherine L. Scott, Hest Bank, Lancashire; Mr. H. Shaw Kennedy and Mrs. Arthur Laye, both of London; Mr. David McAdam Eccles, M. P.; Sir James Hunter Blair, Bart., Blairquhan Castle, Maybole, Ayrshire; and Bairds and Dalmellington, Ltd., Glasgow.

I am further grateful to the many scores of librarians, archivists, county clerks, professors, and private citizens other than those mentioned above who have shown more than a polite interest in this study. Especially helpful were the librarians and their assistants in the University of Edinburgh, the Signet Library, the National Library of Scotland, the Scottish Record Office, and the public libraries of Edinburgh,

Glasgow, Perth, Ayr, Sheffield, and Bristol. Mr. Bryan Little and Mr. H. B. Putt, both of Bristol, have placed me much in their debt, as has Miss Elizabeth Ralph, the Bristol City Archivist. Many London librarians, and a number of county clerks and archivists, notably in the shires of Perth, Midlothian, Nottingham, and Hertford, have likewise given me courteous assistance. And many American libraries have been no less courteous and efficient than those in Great Britain.

My special word of appreciation is due Dr. Cecil Johnson, Ph. D., Professor of History and a Dean of the General College in the University of North Carolina, for his careful perusal of much of the manuscript; to my colleague on the King College faculty, Dr. George Parker Winship, Jr., Ph. D., Professor of English, for his many helpful suggestions; to his wife, Dale Echols Winship, M. A., who has typed the final draft and given many valuable suggestions as to style and form; to Misses June Bailey and Sarah Evelyn Jackson, and to Mr. Benjamin Kelley, who have given me much aid; and finally to my wife, Suenell Bennett Spiro, who has borne patiently my continuous application to this study during a period of two years.

R. H. S., Jr.

Bristol
Tennessee
5 May 1950

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CHAPTER I

THE McADAMS OF WATERHEAD

In the archives of the County of Hertford there is a scroll thirty feet long, painstakingly illuminated by a thirteenth-century monk, and purporting to show the unbroken line of descent of the English kings from Adam and Eve. The same attitude of eager credulity that motivated the medieval monk often sways the more modern genealogist. Hence most Scots are descended from either Robert Bruce or William Wallace; Edward I is regarded as the progenitor of most good Englishmen; and multitudes of the 150 million Americans are persuaded they are directly descended from either Pocahontas and John Rolfe or the Mayflower Pilgrim Fathers. It is not surprising, therefore, to learn from John and John Bernard Burke, nineteenth-century genealogists, that John Loudon McAdam, the Ayrshire Scot, was fourteenth in direct line from Robert III, King of Scotland. But when the same authors show in a detailed diagram that John Loudon McAdam was also sixteenth in direct descent from the English king Edward I through that illustrious king's second wife, Margaret, at least a shadow of doubt flickers across the modern mind.[1]

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1 The Royal Families of England, Scotland, and Wales, with their Descendents, Sovereigns and Subjects (London, 1848), Pedigree LXIII.

More reliable than the grandiose nineteenth-century genealogies of the Burkes and others is the modern scholarship of Dr. George F. Black, a native-born Scot who emigrated to the United States and became the librarian of the great New York Public Library. His carefully-prepared volume on Scottish surnames, published in 1946, quotes a twelfth-century document to show the first mention of the name McAdam which he had discovered: "Dolfinus mach Adam witnessed a charter by Ernaldus, bishop of St. Andrews."[2] One or two other references to variations of the name appear between 1162 and 1462, but beginning with the latter year, the name appears often. Dr. Black cites twenty-six varied spellings of the name, ranging from "M'Caddame" to "Mackadadam." Even "Maccaw" and "Macgaw," he informs the reader, come from the same Gaelic root from which the modern "McAdam" is derived. And in twentieth-century Galloway, states Dr. Black in conclusion, the name is even spelled "Maccaa."

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2 The Surnames of Scotland, Their Origin, Meaning, and History (New York, 1946), p. 449. There continues today the controversy regarding the use of the prefix "Mac," meaning "son." John L. McAdam always signed his name "Jno. Loudon McAdam," but occasionally the "Mc" appears as a hurried "M'." Never did he write out the full and formally correct "Mac." In this work, therefore, the abbreviated form "Mc" will be used, a practice still followed by all his descendants known to the present author. The popular use of his name as noun an verb, for phonetic reasons and probably perpetuating an early error, utilizes the "a," e. g., macadam, macadamization, macadamize, and tarmacadam.

Not a great deal is known about the early history of the family of John Loudon McAdam, the McAdams of Waterhead.[3] Of course, Scottish historical literature is rich in interesting and colorful tradition and folklore, much of which indeed may be authentic, giving point to a statement made in all seriousness by a Scottish businessman, "Why, all Scottish history is true!" Scott and Stevenson and a host of lesser writers have utilized this delightful source of medieval and even early modern romantic lore for novels, lyric and epic poetry, and other forms of entertaining, imaginative literature. But such romantic tradition, however agreeable its narration, must be carefully sifted and weighed by the critical biographer.

Numerous stories and anecdotes are related about the McAdams of Waterhead. When once included in a county history or sophisticated periodical, such stories may find their way into the scholarly encyclopedias, and in the present case, even into the respected Dictionary of National Biography. Most persistent of the McAdam family lore is the popular account of the origin of

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3 Waterhead of Deugh was a small estate near Carsphairn in the Stewartry of Kirkcudbright.

the family and its name. Paterson's History of the County of Ayr...,[4] Shearer's Antiquities in Perthshire...,[5] and numerous other works repeat the same story, each successive writer adding embellishments. Cuthbert Bede, perhaps, narrates it most vividly. After describing the location and topography of the Loch Lomond area and the entrance to the doleful Glenfruin, "The Glen of Wailing," he recounts the great battle fought there in 1602. The Macgregors well-nigh exterminated the Colquhouns, whose chief, Alister of Glenstrae,

> ...having surrendered on terms, was treacherously hanged. The widows of the slain Colquhouns went to Stirling, and appeared before James VI, each bearing the bloody shirt of her husband displayed on a pike, and demanding vengeance. The Macgregors were then outlawed, their name proscribed, and the adoption of it made a felony. This reduced the clan to that predatory mode of life which was the cause of the moon in the Loch Lomond neighbourhood being called 'Macgregor's Lantern.' The Clan lived by blackmail and their fortunes culminated in the famed Rob Roy....[6]

The diary of Robert Birrel contains the dramatic sequel to the story by Bede:

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4 James Paterson, History of the County of Ayr; with a Genealogical Account of the Families of Ayrshire (Ayr, 1847), I, p. 308.

5 John Shearer, Antiquities in Perthshire, with Historical and Traditionary Tales, and Biographical Sketches of Celebrated Individuals Belonging to the County (Perth, n. d.), pp. 13-17.

6 Cuthbert Bede /Edward Bradley/, A Tour in Tartan-Land (London, 1863), pp. 157-158.

Oct. 2 /1603/ The 2 of Octr: Allaster MacGregor of Glanstrae the laird of Arkynles, bot escapit againe; bot after taken be the Earle of Argyll the 4 of Januarii, and brocht to Edr: the 9 of Januar: 1604, wt: 18 mae of hes friendes MacGregors. He wes convoyit to Berwick be the gaird, conform to the Earle's promes; for he promesit to put him out of Scottis grund. Sua he keipit ane Hielandman's promes, in respect he sent the gaird to convoy him out of Scottis grund; bot yai wer not directit to pairt wt: him, bot to fetche him bak againe. The 18 of Januar, he came at evin againe to Edinburghe; and upone the 20 day, he wes hangit at the crosse, and ij of hes freindes and name, upone ane gallows: himself being chieff, he wes hangit his awin hight above the rest of hes freindes.[7]

In the following February nine more Macgregors were "hangit, quho had lain lang in the tolbuith;" and in March of the same year, "7 MacGregors and Armstrangs were hangit at the crosse."[8]

But not all the MacGregors were captured and hanged. The persistent McAdam tradition has it that having no legally permissable name, many of the surviving members of the clan selected the surname "Adam," thus "MacAdam" (meaning "son of Adam"), a name they considered sufficiently distinguished and venerable. In the course of time a few MacGregors bearing the new surname appeared in Ayrshire and Kirkcudbrightshire. Even Georgina Keith McAdam, the youngest daughter of John Loudon McAdam, declared in a letter written in 1854, that she was descended

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7 The Dairey of Robert Birrel, Burges of Edinburghe. Containing Divers Passages of Staite, and Uthers Memorable Accidents. Frome the 1532 Zeir of our Redemptione, Till Ye Begimning of the Zeir 1605, printed in Fragments of Scottish History (Edinburgh, 1798), pp. 60,61.

8 Ibid.

from a large body of the McGregors who emigrated into the Stewartry of Kirkcudbright in Galloway and set up a robber's castle near Carsphairne where they played winky till the reign of Queen Mary. When they found it safer to turn decent folk they paid the price of their usurped land and took the name of McAdam--the last lawless gent being Adam McGregor.[9]

William McAdam, a grandson of John Loudon McAdam in a letter to his cousin Charles made the same claim, relating that in Carsphairn, the village nearest Bellochmorrie House,[10] he was in 1837 hailed by some of the villagers as chief of the Clan Gregor. "I wear supporters as Chief of the name as did our ancestors," he added.[11]

The evidence available today, however, indicates other origins of the McAdams of Waterhead. The writer of the History of the Clan Gregor makes no mention of the name McAdam, nor of any of its numerous variations, except in listing the signatories of the Bond of Union at Fort William (1645). Among the names of Montrose and fifty-one others who signed that bond there appears

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9 From a copy of an original letter which is thought no longer to exist. The exact date of the letter (within the year 1854) is not known, although the addressee was probably Gloriana Sanders, a niece. The copy viewed is in the possession of Mrs. Katherine L. Scott (nee Stuart) (Hest Bank Lodge, Hest Bank, Lancaster). Mrs. Scott is a descendant of J. L. McAdam's sister, Grizel, who married Adam Steuart.

10 Ballochmorrie House was built by the senior William McAdam about 1830. It is not near Carsphairn, however, for that village is at least thirty miles away across the open moor. Even today the closest approach to Carsphairn, from Ballochmorrie House, is via Newton Stewart and New Galloway, a distance of about forty miles.

11 30 October 1858. Mrs. K. L. Scott, mentioned above, has a copy of this letter.

one "J. Mceadam,"[12] who presumably had no connection whatsoever with the Clan Gregor. Mrs. Roy Pember-Devereux, a lineal descendant of John Loudon McAdam, in the centenary biography of her famous ancestor deprecates the story.[13] And James Paterson insists that there were McAdams in Carrick and the Stewartry of Kirkcudbright long before the proscription of the MacGregors by King James VI, although in presenting the evidence he confuses the important date 1569 with 1596, and cites the latter date as the date of the original charter to the lands of Waterhead.[14]

Insofar as it is known today the documented history of the McAdams of Waterhead begins in the year 1569, when Andrew McAdam was granted a charter to the "4½ marcat. heredibus de Wattirheid antiqui extensus...," on resignation by Michael Gilbert. This land had been occupied by Andrew's father, "Joh. Makadam," for some time.[15] In the charter is given the name of the first Baron Waterhead, the name of his father, and the date of the original

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12 Amelia MacGregor, History of the Clan Gregor from Public Records and Private Collections (Edinburgh, 1898), II, p. 93.

13 Roy Devereux (Mrs. Roy Pember-Devereux, nee Rose McAdam), John Loudon McAdam (London, 1936), pp. 16-20.

14 Paterson, op. cit., I, p. 309.

15 John M. Thomson, ed., The Register of the Great Seal of Scotland (Edinburgh, 1886), p. 477, par. 1870.

grant. Interestingly enough, the price Andrew McAdam paid for his right was one silver penny.

Andrew McAdam and his successors for almost exactly two hundred years were styled "Baron Waterhead." This title did not, however, denote membership in the peerage. It was given to those landowners who held their lands on barony title under the crown. Scottish "barons" were more commonly called "lairds," and represented the link between the peerage and the peasants. Before 1587 possession of this right conferred the privilege of sitting in Parliament, but in that year the barons were excused attendance and allowed to meet and elect representatives to sit in their places. Their charters conferred certain rights of jurisdiction within their lands, including power to hold courts, try criminals, and pass sentence in specified cases. Most of these judicial rights were abolished by the Heritable Jurisdiction Act passed after 1746, but until the passage of the Great Reform Bill in 1832 the barons were the sole county electors in Scotland.[16]

The McAdams of Waterhead have never registered their coat of arms in the Court of the Lord Lyon in Edinburgh. The Parliament of 1672 decreed that all persons possessing arms were to produce their rights to the Lord Lyon so that a new register might be compiled to replace the one lost in the Commonwealth era. The

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16 Francis J. Grant, the Lord Lyon, Edinburgh, to "Mrs. Roy Devereux," 6 and 12 June 1936, Pember-Devereux MSS. (in the possession of the Rt. Hon. David McAdam Eccles, M. P., Westminister).

McAdams of Waterhead were Covenanters at the time, and thus practically in rebellion against the crown. It was probably rather inconvenient for them to register their family arms in accordance with the 1672 Stuart law! In any event, the only McAdam arms officially registered today are those of the McAdams of Craigengillan, recorded 10 July 1784.[17]

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Waterhead is situated on the bank of the Water of Deugh in the Parish of Carsphairn, in the thinly-settled extreme north of Kirkcudbrightshire. This parish juts deeply into Ayrshire, and is all but surrounded by its neighboring county. The remains of the Waterhead manor house, unpretentious even in 1600, form today a portion of a shepherd's cottage. But in the seventeenth and eighteenth centuries the family were freeholders, proud of their charter, and often, it is said, demanded that their neighboring "inferiors" address them as "Baron" and "Baroness."

Andrew McAdam, the first Baron Waterhead, was followed successively by Quentin, Gilbert, and William, about whom we know very little. A second Gilbert, however, who served heir to his

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17 Ibid. The McAdams of Craigengillan comprised a junior branch of the family, and were cousins of the Waterhead branch. A photograph of the Waterhead coat of arms is to be found ~~opposite this page.~~ on p. 463.

father on 2 August 1662, was a devout and vigorous Covenanter. It appears that he was frequently involved with the officials of the Stuart dynasty. Graham of Claverhouse--a commander of the Stuart forces and vulgarly known as "Bloody Clavers"--was in the vicinity imposing oaths of allegiance and religious conformity upon the inahbitants when he happened upon Gilbert McAdam. Wodrow quaintly describes what happened as follows:

> In the Year 1682, he was taken Prisoner, and carried into Dumfries. His Crime was mere, Nonconformity. His Father in Law went in and gave Caution [bail] to produce him when called, under Four hundred Pounds Penalty, which was, upon his Noncompearance, exacted. In a little Time Gilbert was taken again, and carried in Prisoner to Glasgow, where refusing the Oath of Allegiance with the Supremacy, he was banished to the Plantations, and went off in Captain Gibson's Ship. His father gave him Twenty Pounds Sterling with him, and by this he bought his Freedom in America, and returned back this year [1685]; and upon a Saturday's Night, in the House of one Hugh Campbel, near the Place of Kirkmichael, being with some of his Friends at a Meeting for Prayer, a Company of Militia, under the Command of Colzean, surrounded the House. Gilbert was most obnoxious, had he been taken, and essayed to escape: The Soldiers perceiving him, discharged their Pieces, and killed him. He had really bought his Freedom, and was convict of no Crime since. He was a Person of shining Piety.18

Paterson notes that a stone was erected to commemorate the death of Gilbert; and although the names of the leaders of the Covenanters were erased from the stone on order of the authorities,

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18 Robert Wodrow, The History of the Sufferings of the Church of Scotland, from the Restauration [sic] to the Revolution... (Edinburgh, 1722), II, p. 563.

Scott's "Old Mortality" is said to have restored the inscription. This historic stone was as late as 1847 encased in a neat monument in the churchyard at Kirkmichael.[19]

Gilbert's son and heir James was seised in Waterhead on 25 January 1681, apparently upon the transportation of his father to one of the colonies.[20] Like his father before him and his descendant John Loudon McAdam, James was a man of tenacity of purpose and firm resolution. Apparently, he inherited his father's religious principles. On the reverse side of his tombstone in the family plot at Carsphairn are to be found the following lines,

> Reader, behold in death so cold
> Two Waterheads here ly,
> Who in our night yt. give us light'
> Truth's champions in their day,
> Protestors brave lo here yr. grave
> In . . . . . of day
> Their souls above the. . . . .
> With saints do sing for ay.[21]

For three further succeeding generations the heads of the McAdams of Waterhead bore the Christian name of James. The son of the James whose epitaph is quoted above married Janet Craufurd of the Loudoun family. His son and heir married Margaret, daughter and heiress of John Reid of Mid Helliar in 1715. And he in turn

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19 Paterson, loc. cit.
20 Wodrow, loc. cit.
21 Paterson, loc. cit.

gave way to his eldest son James, the father of John Loudon McAdam.

Of the little that is known about his immediate forbears, John Loudon McAdam has contributed a part. In a letter directed to his granddaughter, Nancy Sanders, written at the age of seventy-six, he rather humorously transmitted what knowledge he had on the subject:

> You and Christopher seem to have forgotten that most people have two grandmothers, which was my good fortune and as you do not mention which of them you are inquisitive about I will tell you the names of both. My father's mother was Margaret Reid an Ayrshire heiress--she left her fortune to her second son my uncle Gilbert McAdam who spent it all. My mother's mother was Hannah de Witt, a Dutch lady that my grandfather married when he was envoy at the Hague. The house you enquire for was Glaisnoch near Cumnock; it was my Father's property, but my Grandfather Cochrane hired it and lived in it when my mother Susannah Cochrane was born.[22]

John Loudon's knowledge of family history was correct in most particulars, in the light of what is known today. His maternal grandfather could hardly have been described accurately as "envoy at the Hague," however. This grandfather was the second son of William Cochrane, the 1st. Earl of Dundonald. Sir James Balfour Paul has traced the Cochrane family back to Waldeve de Cochrane, who settled on the five-mark lands near Paisley

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22 Quoted in Roy Devereux, op. cit., pp. 26, 27. Other than the year 1832, no date for this letter is known, nor does Devereux divulge its location.

in Renfrewshire. This family grew in prominence throughout the later Middle Ages and the period of the Reformation in Scotland. By 1616 the family had acquired lands in Ayrshire. Dundonald is to this day the name applied to a maritime parish in Kyle-Stewart, Ayrshire. Sir John Cochrane, early in the seventeenth century, took a leading part in Scottish affairs, always identifying himself with the Royalist cause. His brother, likewise a noted Royalist, was created Lord Cochrane of Dundonald in 1647, and on 12 May 1669 was raised to the dignity of an Earl, being styled "Earl of Dundonald, Lord Cochrane of Paisley and Ochiltree." His second son was Sir John Cochrane of Ochiltree, Knight, the grandfather of Susannah Cochrane, the mother of John Loudon McAdam. Entering Parliament in 1669, Sir John shared with his constituency those covenanting principles which distinguished the west of Scotland. Escaping capture after the battle of Bothwell Bridge, together with the Duke of Hamilton he sought a personal interview with the King, hoping thereby to win some leniency for his compatriots. This effort failed, and owing to his alleged complicity in the Rye House plot, he fled to Holland.[23] It was there, presumably, that the twenty-two year old second son of Sir

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23 The foregoing account of the Cochrane family is largely based on the lengthy account of the family appearing in Sir John B. Paul, The Scots Peerage...(Edinburgh, 1906), III, pp. 334-368.

John, in exile with his father, married Hannah de Witt (or de Werth).[24] If this modern account of events is correct, young John Cochrane could hardly have been considered an envoy, at least not an accredited one!

An interesting corollary to the story of young John Cochrane concerns his sister, Grizel. Upon hearing that her father, incarcerated in the Edinburgh Tollbooth, had been condemned to death by the London authorities, she donned male attire, and, mounted and armed with an awe-inspiring blunderbuss, waylaid the postrider en route to Edinburgh. By seizing and burning the King's writ, she delayed the execution of her father, and he was ultimately pardoned.[25]

Both Sir John and his son forfeited their estates in 1684 as punishment for their participation at Bothwell Bridge. Each

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24 Genealogical fragment found among the Shaw Kennedy MSS. (in the possession of Mr. H. Shaw Kennedy, 12 Rosary Gardens, London, S. W. 7). Paul (op. cit., III, p. 350), however, while noting the marriage with Hannah de Witt, states that the marriage contract was dated 14 September 1687, a date two years subsequent to the return of the son with his father from Holland. This lady could have married young John in Scotland, of course, either having returned with him in 1685 or having joined him in 1687.

25 This story is repeated with variations in many eighteenth- and nineteenth-century histories of Scotland. Sir John B. Paul (op. cit., III, p. 347) confirms earlier testimony to the fact that the sentence actually imposed did not exceed forfeiture of property, although the family was necessarily concerned lest a warrant of capital punishment be executed. Paul cites Fountainhall's Decisions, p. 366, giving an account of two robberies of the English packet at Alnwick, the conjecture being that Sir John's friends were seeking to intercept a possible death warrant.

was pardoned, however. The lands of the son were restored in March 1688, and those of the father in 1690 at the instance of his brother, the 3rd. Earl of Dundonald. And in 1758 when William, the 7th. Earl of Dundonald, died without male heir, he was succeeded by Thomas Cochrane, a grandson of Sir John Cochrane of Ochiltree and first cousin-german of Susannah, the mother of John Loudon McAdam. It was through this relationship that John Loudon McAdam was related to many of the leading families of Ayrshire, and indeed, of all Scotland.

CHAPTER II

YOUTHFUL EMIGRANT

Waterhead may have been lacking in high rank and great wealth, but the sons of the family seemed always able to recoup their fortunes by marriage to the daughters of landed proprietors. In 1715 James McAdam married Margaret Reid, the daughter and heiress of John Reid of Mid Helliar and Merkland. Their eldest son who was James, destined to be the last of Waterhead, was at the age of seventeen wedded to Susannah Cochrane (about 1735), and while one younger brother (Gilbert) married a wealthy widow, William, the youngest of the brothers, married Ann Dey of New York, a maiden closely related to the fabulous van Rensselaer family. But John Loudon McAdam, the first heir of his ilk in 200 years not to bear the name of the family estate of Waterhead, outdid them all: he married two heiresses, for when a young man of twenty-two in New York he married Gloriana Margaretta Nicoll, and as a famous old widower (age seventy-one!) he wed Ann Charlotte DeLancey.

James McAdam and Margaret Reid had at least five children, although James' will, dated 1720, indicates there were only three at that time, namely James, John and Janet.[1] Paterson likewise

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1 "Disposition--McAdam to his children," Register of Deeds, Dalrymple Office, CVC, 26 January 1764. All legal documents cited in this chapter, unless otherwise indicated, are deposited and have been examined in the Scottish Record Office, Edinburgh.

AYR SHIRE
(1811)

Green Hill Pasture
Clay Soil
Sandy Soil
Moss & Black Moorland.

DEUGH WATER
AYR
MUIRTEWOORD
MAYBOLE
SAUCHRIE
MUIRKIRK

OCEAN

CLYDE

Scale of Miles

cites only three-all sons: James, Gilbert, and William.[2] An anonymous little volume describing the Logans of Knockshinnock recounts four sons, the three mentioned by Paterson, and also a boy named John.[3] So perhaps by the time of his death in 1735 James McAdam and his wife had as many as five children.

Sometime in June 1735 James McAdam's widow was "duly infeft and seised in Waterhead," her eldest son James being only about seventeen years of age at the time. John inherited his mother's property of Merkland, but on his early death, it passed to Gilbert, who was by that time a captain in the 62nd Regiment (Loudon's) and serving in North America. It was while there that he married Sarah Kilby, a daughter of Christopher Kilby of Cambridge, in the Colony of Massachusetts Bay.[4] Many years later Gilbert's great-niece in a brief but illuminating family narrative recorded a few brief facts about him: "He married.../the/ daughter of an exceedingly rich army contractor..../They/ had a family also.... Gilbert lost the last penny by the Ayr Bank and died of chagrin."[5]

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2 James Paterson, History of the County of Ayr...(Ayr, 1847), I, p. 309.

3 The Logans of Knockshinnock (Privately Printed, 1885), p. 2.

4 Ibid.

5 The writer of this manuscript was Georgina Keith McAdam, the youngest of daughter of John Loudon McAdam. It was written for her niece, "Glory" Sanders, in 1854, and is entitled "The History of the Waterhead McAdams and the McAdams of Craigenfillan." It is currently in the possession of Mrs. Katherine L. Scott, Hest Bank, Lancashire.

Gilbert's wife bore him four sons (Kilby, James, John, and William), and a daughter (Martha) who married John Logan of Knockshinnock.

William, the youngest son of Waterhead, emigrated to New York about 1760, and it was to him that John Loudon went upon the death of his father in 1770.

Georgina Keith McAdam's narrative is almost the sole source of personal information today about John Loudon's parents and grandparents. Although sharing the family prejudice when writing about the younger and more prosperous Craigengillan branch, she seems accurate in most particulars:

> Waterhead [she relates of her great-grandfather] was an active and learned man and interested himself much in Craigengillan's agricultural improvements. He was often at Barbeth [the Craigengillan estate] and took a great fancy to young John McAdam, then a handsome youth of 17, who spent much of his time at Waterhead assisting the Laird in managing his property and the Laird doing everything for his improvement, particularly by introducing him into good company which advanced his interest every way....
>
> The Laird (my g. g. father) died young and had such confidence in young John McAdam that he left him sole factor to both estates and guardian or tutor to his three little boys--and this by giving him a considerable command of money laid the foundation of his large fortune. I must tell you that this John was a wondeful man - my father often compared him to the two wonders of his time, Bonaparte and Talleyrand,... In short, he was mammon in a handsome human shape.
>
> He did not cheat his wards in any way illegally and brought them up extremely well. He only used their spare money to establish and monopolise the cattle trade from the south of Scotland to England and made large sums which he lent out on good mortgages....He was scrupulously honest in his dealings and true to his work because he said it was essential to rising high in the world. You will not think he is over-rated here when it is considered that he died worth 12 or 14 thousand a year....

> The first clovenfoot trick he played my grandfather was getting up a very good marriage for him. Miss Cochrane there was fortune as well as birth /sic/- and people were blinded. But the Laird was only 17 and the Lady 18 and marriage made the Husband of age - for selling land - and Waterhead began to go![6]

Although Waterhead did not "go" in the manner described by the lively Georgina Keith, the Craigengillan branch of the family gained rapidly in wealth and prestige during the eighteenth century, owing chiefly to vigorous and enterprising ability. With extensive properties in Straiton and Dalmellington Parishes, Ayrshire, Craigengillan lived in style at Berbeth. This manor house, located on the left bank of the River Doon two and one-quarter miles from Dalmellington village, was situated amidst beautiful grounds. The various Registers of Deeds for the area record the rapidly multiplying acquisitions of the family. During the period 1750 to 1800 there were dozens of purchases and foreclosures by Craigengillan, no less than seven in the year 1781. Berbeth was acquired during this era, as well as the property of some of the members of the Waterhead family, Camlarg, for example, which belonged to John Loudon's brother-in-law, William Logan. By 1779 even the estate of Waterhead belonged to John McAdam of Craigengillan, albeit acquired by a somewhat circuitous route.[7] In February 1784 John McAdam suffered a severe stroke, from which

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6 Ibid.

7 This is noted in a "Procuratory of Resignation by John McAdam of Craigengillan per Rae," 13 August 1779, and recorded in the Register of Deeds, ~~etc.,~~ Dalrymple Office, CCXXVI, part I, folio 549.

he never recovered, and he died in 1790 leaving his only son Quintin a very wealthy man.[8] It was to the same elderly John McAdam of Craigengillan that the struggling Robert Burns addressed seven verses in 1786, entitling his composition "To Mr. M'Adam of Craigen-Gillan in answer to an obliging Letter he sent in the commencement of my poetic career." That Burns considered the attention of Craigengillan an honor is indicated by the following four lines:

> 'Twas noble, sir; 'twas like yoursel',
> To grant your high protection:
> A great man's smile ye knew fu' well,
> Is aye a blest infection.[9]

It was on 23 September 1756 that John Loudon, the youngest child of James McAdam and Susannah Cochrane, was born.[10] It is

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8 William Logan to James Hunter Blair, 16 February and 6 March 1784, Hunter Blair MSS. (in the possession of Sir James Hunter Blair, Blairquhan Castle, Maybole, Ayrshire). Also, "Discharge of Quentin McAdam, Esq.," 29 September 1794, Register of Deeds, CCLVI, folio 572.

9 The Harvard Classics (New York, 1909), VI, The Poems and Songs of Robert Burns, pp. 197-198.

10 The same well-worn volume that records the birth of Robert Burns on 25 January 1759 contains the official record of the birth of McAdam. This is the Parochial Register of Ayr, 1753-1790, Parish 578, IV, in the Scottish Record Office, Edinburgh. Most writers have this date correct, although McAdam's centenary biographer merely states he was born in 1756 (Roy Devereux, John Loudon McAdam, p. 25). Peculiarly, the Dictionary of National Biography (London, 1909), XII, p. 395, states that McAdam was born on 21 September 1756. More strangely still, the McAdam family Bible, now in the possession of Mrs. Katherine L. Scott, sets the date as 21 September 1756.

generally accepted that the birth occurred in a house in or near what is now Wellington Square in the Royal Burgh of Ayr. The Parochial Register and the Family Bible agree that John Loudon was born in Ayr, but are silent in regard to the specific house in which he was born. There is today, however, a persisting tradition in Dalmellington Parish, Ayrshire, that McAdam was born near Carsphairn, despite the declaration of a plaque in the Carsphairn Parish Church that McAdam was born in Ayr. Local residents are divided, however, for some believe he was born at Waterhead, and others affirm he was born at Lagwyn.[11] Despite the traditions of Dalmellington Parish it seems clear that the stronger evidence points to Ayr as the birthplace of John Loudon McAdam.

John Loudon had one brother, James, and eight sisters. All were older than he. In his autobiographical letter of 1832, he

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11 W. J. P. Wilson Walker of Kirkland, Tynron, Dumfriesshire, to James Fergusson, 25 January 1949. This letter is in the possession of the present writer. Walker states "It is generally accepted in Carsphairn that he [McAdam] was born at Lagwyn - now a shepherd cottage on a small knoll above the main road from Ayr to Carsphairn,..." On the other hand, Arthur W. Wilson of Craiglee, Dalmellington, Ayrshire, in a letter to the author (16 January 1949) avers "it is claimed that he [McAdam] was born in a small sheep farm called Waterhead on the Deuch [sic] half way between Dalmellington & Carsphairn." The remains of both Lagwyn and Waterhead now form shepherds' cottages. The exact wording of the plaque was supplied by the present minister of the Carsphairn Church in a letter to the writer, 8 March 1949.

informed Nancy Sanders that her great uncle James

> was a Lieutenant in the 25th Regiment at Gibraltar and was recalled by my father and made to sell out on account of his proposing to marry Miss Bruyere, his Captain's daughter, which my father disapproved of. Miss Bruyere was afterwards married at Bermuda, where her father was Governor,...My brother never did any good after he left the Army and died in London when I was very young about the year 1763 or 64.[12]

His sisters were Margaret, who married William Logan of Camlarg in 1763; Grizel, who is praised by Georgina Keith as "the flower of the sisters;" Wilhelmina Hannah; Elizabeth; Clara; Jacobina; Catherine; and Sarah. The five of these girls last named died unmarried, and of the final four little is known save their names.

The childhood of John Loudon is unfortunately obscure. His grandmother, Margaret Reid McAdam, who had been left a widow in 1735, married within a few years Dr. Robert Johnston, "Chirugeon in Moffat."[13] Although some years her junior, he died in 1756, by coincidence only four days prior to the birth of John Loudon. Each summer until 1767 young John Loudon visited his grandmother at her fine manor house of Dumcrieff, near Moffat, Dumfriesshire. He is said to have tramped the hills of the surrounding sheep country, hunted for birds and rabbits, and fished in Moffat Water

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12 Quoted in Devereux, op. cit., p. 27.

13 This brief phrase appears on his tombstone in Moffat. Margaret Reid is buried beside him, and also John Loudon McAdam.

which flows only a few feet from the comfortable house. In the autumn he often nutted in the neighboring patches of woods.[14]

Georgina Keith related that

> Great-Grandmama was a very stately person and never gave up her title of Lady Waterhead. She lived in a house which is a good one even now and there my father spent much of his early boyhood. He was the youngest [grandchild] ...and Granny Moffat was dotingly fond of him and it was those remembrances which made my father go to that neighbourhood when he returned from America and at last die there and request to be laid in his grandmother's tomb.[15]

This affectionate old "Granny" died in 1766, when John Loudon was but ten years old. No intimate account of her death survives, and we can only imagine his bewilderment and sorrow at her passing.

In December 1762 there occurred a disastrous fire in the McAdam home which demolished the furniture and personal effects of the family, the occupants barely escaping with their lives. The scene is dramatically pictured by a great-nephew of John Loudon. The parents were visiting in Edinburgh, and six-year-old "Loudon" (as he was affectionately called in the family group) was left with his elder sisters in the charge of a nurse. The fire occurred in the small hours of the morning. The girls, with the nurse not far behind, fled into the snowy night, and standing barefoot and shivering, watched their possessions go up

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14 This vague information is related in his obituary appearing in the Dumfries and Galloway Courier, 7 December 1836.

15 Georgina Keith McAdam, loc. cit.

in flames. Someone suddenly discovered that "Loudon" was not among them. The nurse, who apparently felt responsible for starting the fire, cried out, "Am I going to add murder to arson?" whereupon she rushed back into the flames with considerable risk to herself, and saved the child from certain death.[16]

It has generally been held that this disastrous fire occurred at Lagwyn Castle, located on a knoll above the main road between Dalmellington and Carsphairn.[17] But it is by no means certain when (if ever) the family of Waterhead moved there. It is definitely established, however, that such a disaster did occur, and probably at Waterhead, for a few months later James McAdam sold Waterhead and most of his other holdings in land to John Dalrymple of Stair (later the 5th Earl of Stair). In effecting the transfer of Waterhead, James McAdam was forced to secure copies of the documents substantiating his purchase of various adjacent properties. Each duplicate document notes quaintly that it has been issued considering "ye both ye sd. Dispns granted by me to ye sd. Jas. McAdam were lost by ye Burning of ye sd Jas McAdm his

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16 David S. Ramsay, "Biographical Sketches of Some Ayrshire People." This typescript, dated 1893, is in the Carnegie Library, Ayr.

17 Devereux, op. cit., p. 31, and George S. Barry, "John Loudon McAdam, 1756-1836," Journal of the Institution of Municipal and County Engineers (London), LXIII, no. 10, 1936, p. 22. Lagwyn is sometimes spelled "Lagwyne" or "Laguine."

house in Decemr last...."[18] It is not known why James McAdam sold Waterhead, although it seems reasonable to conclude simply that he preferred to move elsewhere rather than rebuild Waterhead. Nor is the price he received for Waterhead known, the surviving registered documents being silent on the subject. But it appears that the sale of Waterhead must have brought him a substantial sum, for in 1765 the new owner secured a loan of 12,700 pounds sterling on the property.[19]

Here again occurs an interesting controversy. Many writers on the subject state not only that it was Lagwyn that burned, but that James McAdam was forced to sell Waterhead after suffering heavily in the failure of the "first bank of Ayr."[20] This bank, which must have been Douglas, Heron and Company (often referred to, even in Acts of Parliament, as simply the "bank of Ayr"), was not founded until November 1769. James McAdam did subscribe heavily, but died before the collapse of this speculative enterprise in 1772. The various records of seisins, however, clearly indicate the sale of Waterhead six years before the "first bank of Ayr" was founded. These same records show that James McAdam

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18 e. g., "Disposition - Campbell to James McAdam," Register of Deeds, Dalrymple Office, CVC, 26 January 1764. James McAdam's will, also lost in the fire, was replaced at this time.

19 General Register of Seisins, CCLIV, folio 211.

20 So suggests, for example, William McAdam of Ballochmorrie, in a letter to his cousin Charles McAdam, 30 October 1858, Katherine L. Scott MSS.

was gradually liquidating his holdings during the interval between the fire and the banking speculation; thus he may have entered the venture in the hope of recouping his waning fortune.

In the meantime, however, James McAdam moved his family to Whitefoord Castle. Located in the beautiful Parish of Straiton about one mile from the picturesque village that bears the same name, this castle graced the left bank of the Girvan River, in South Ayrshire.[21] During the winters John Loudon attended the parochial school of Maybole, about six miles distant, where he was the pupil of the dominie Richard Doig. It was related in 1836 that "From his earliest years he exhibited decided symptoms of the turn of his genius," having at the school at Maybole "shewn to his wondering play-mates a section of the Girvan Road from Maybole to Kirkoswald, the work of his half holiday."[22]

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21 This residence was rented from Sir John Whitefoord. It was demolished about 1820, and the present Blairquhan Castle erected on the same site in 1824. Its present occupant, Sir James Hunter Blair, possesses in his archives several letters written by McAdam to his ancestor, James Hunter Blair, and other letters pertaining directly or indirectly to McAdam and his relatives. Paterson (op. cit., II, p. 475) describes it as "altogether a magnificent building," and its location as "altogether delightful--the river gliding in front of the castle, and the hills of Craigengower and Benan forming a background, which, in their dark outline, form a delightful contrast to the variegated woods...."

22 This undoubtedly apocryphal story seems to have been first printed in McAdam's epitaph, Dumfries and Galloway Courier, 7 December 1836.

-4-

It appears that the remaining years of the decade of the 'sixties passed peacefully for the McAdam family, which continued to reside in the commodious Whitefoord Castle. James McAdam's last year, and the future of his son and family, seem to have been deeply influenced by the establishment in November 1769 of the Douglas and Heron Bank.[23] Its chief promoters were the Honorable Archibald Douglas of Douglas, and Patrick Heron. The original capital of the bank (96,000 pounds) was subscribed by about 140 persons, who were mostly unacquainted with the banking business. James McAdam contributed 500 pounds sterling. An orgy of speculation and financial excesses followed. "Notes were issued without limit, and to get them into circulation, [the bank] was unusually liberal in discounting bills." Loans were indiscriminately made, and a boom period ensued. The operations of the bank extended quickly all over the kingdom.[24] James McAdam, however, did not live to see the inevitable outcome, which occurred in the summer of 1772, completely disrupting the economic life of the county and much of Scotland for several decades. He died on 20 August 1770, "at his house of

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23 See above, p. 25.

24 This account is based mainly on The Memoirs of a Banking House, by Sir William Forbes of Pitsligo (Privately Printed, 1859), pp. 24 (footnote 1) and 42.



JAMES McADAM OF WATERHEAD

Whitefoord, in the County of Air,..."[25]

James McAdam, the last of Waterhead, was surely no match for his clever and acquisitive cousin, John McAdam of Craigengillan. But in spite of fire and bad judgment he left his large family in comparatively comfortable circumstances, although they undoubtedly suffered severe losses in the crash of Douglas, Heron and Company. His widow's niece wrote in early December 1770:

> I was also at my Uncle McAdam's sometime, who then resided at Whitefoord.../he/ was very ill of the Gout, which ended in a Dropsy and at last cut him off about three months ago - He was generally though an Extravagant Man, and from that 'twas apprehended his circumstances might be embarrassed. But it turned out otherwise at his death, for fortunately for my Aunt & 5 /sic/ daughters he has left unmarried he died worth about 6 or 7000L & to each of the girls he left 500L the rest to his only Son Loudon a promising boy yet at school.[26]

Shortly thereafter it was decided to send this "promising boy" to his uncle in New York. The family property had passed to other hands, and the mother was left a widow with seven unmarried young daughters. Uncle William McAdam, married but childless, was prospering in the New World, and obviously could offer John Loudon a splended opportunity for a successful life. Thus in the very late autumn of 1770 a widowed mother bade farewell to her only living son, a bright adolescent lad of fourteen. Surely she

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25 Scots Magazine, XXXII, 1770, p. 458.

26 "A. Cochrane", Castle Canon, to her brother (name unknown), 1 December 1770, Shaw Kennedy MSS. McAdam actually had seven unmarried sisters at the time.

realized that this parting was in all probability final, and it must have been with great tenderness and a sense of despair mingled with hope that she kissed his tear-stained cheek and bade him a heartfelt Godspeed.

CHAPTER III

AMERICAN LOYALIST

When young John Loudon McAdam arrived in New York City in the winter of 1770-1771, the thirteen continental colonies had already joined the struggle with the Mother Country over the right to govern their domestic affairs. If he arrived in January 1770 he likely learned of the destruction of the fourth Liberty Pole by the British garrison; if in early February, he may have witnessed the erection of a fifth Liberty Pole by the more rabid Patriots. This pole was fifty-eight feet long, and was surmounted by an elaborate topmast on which was spelled out the word "LIBERTY." With great ceremony it was set up on 6 February to the cheers of several thousand excited colonials. This pole was doubtlessly observed frequently by young McAdam, for it was located on Isaac Sears' lot near the Common, and remained a symbol of colonial resistance until removed by British troops in October 1776.

Or if perchance John Loudon arrived in the New World very early in March 1770 he witnessed the excitement which swept the colonies when the news of the so-called "Boston Massacre" (5 March) was noised about. Or again, there was further excitement when word was received in New York and elsewhere in the

continental colonies that the Townshend Duty Act had been repealed except for the token tax on tea, and a wondering adolescent may have been greeted at the dock by his Uncle William, still elated by the news of this submission.

Upon his arrival that winter or spring of 1770-1771, John Loudon was entering the New World in exciting days, and in later life he must have remembered vividly those fascinating and impressionable years he spent in New York, the years 1770 to 1783.

The Liberty Pole was deeply significant. With the passage of the Sugar Act of 1764 and the Stamp Act of 1765, Parliament under Grenville indicated it intended to require the colonies to bear a share of the cost of their defence and administration. The French and Indian War (Seven Years' War) had increased the British debt by one hundred per cent, and it was only fair, reasoned the Ministry and a majority in Parliament, that the colonists, who had been forever relieved of a French menace in North America, bear a part of the resultant financial burden.

But the Sugar Act and more particularly the Stamp Act brought His Majesty's loyal citizens in North America into open defiance. The "New Colonial Policy" after 1763 ran counter to the temper of the times, for the British colonials in North America had long been accustomed to local self-government. The

thirteen continental colonies, indeed, were really thirteen semi-autonomous republics, each ruled by its own locally-chosen assembly. The royal governor, dependent on the generosity of the assembly for his salary and all other appropriations, was at the mercy of that body. Thus the passage of the Sugar and Stamp Acts evoked a vigorous protest almost immediately against the "usurpation" of the British government. The outcry was so vehement and widespread that an extra-legal Stamp Act Congress was held in New York (October 1765), with nine colonies joining in a formal demand for the repeal of the "oppressive acts."

Great was the general delight, therefore, when in May 1766 the news of the repeal of the Stamp Act was broadcast. It was amidst the attendant celebrations that the first Liberty Pole was erected, bearing on a large board the inscription, "George III, Pitt, and Liberty." To the Sons of Liberty (loosely-organized societies of the more radical colonials) this pole was a sacred symbol of their rights as British citizens. Thus when the British soldiers surreptitiously and apparently without orders hacked it down, it was raised again as quickly as possible by an angry populace.

In repealing the Stamp Act, Parliament "made clear that they relinquished none of their authority over the colonies, and George III and his Ministry were still harping upon

'obedience' and 'dutiful submission.'"[1] It came as no surprise, then, when in June and July 1767 Parliament passed a series of repressive measures proposed by Charles Townshend, Chancellor of the Exchequer. A Board of Customs Commissioners was created to enforce the trade laws and new duties; and the New York Assembly was denied its legislative function until it complied with the Billeting Act.

There then followed a bitter and protracted struggle with Parliament and the Ministry, the colonials voicing their vehement objections (much against their economic interests) by associating in non-importation and other restrictive agreements. An effort was made to coerce the rebellious New York Assembly in 1767 by the enactment of a Mutiny Act in which Parliament required the royal governor of New York to veto all legislation until the Assembly complied fully with the Billeting Act. At

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1 Thomas J. Wertenbaker, Father Knickerbocker Rebels (New York, 1948), p. 21. Professor Wertenbaker's recent work is a well-written and authoritative study of Revolutionary New York City, and is easily the best monograph dealing with this subject. Numerous special studies pertain to the Revolution in New York, but especially helpful for the present study are W. E. H. Lecky, The American Revolution, 1763-1783 (New York, 1898); Claud H. Van Tyne, The American Revolution, 1776-1783 (New York, 1909); Alexander C. Flick, Loyalism in New York During the Revolution (New York, 1901); and Harry B. Yoshpe, The Disposition of Loyalist Estates in the Southern District of New York (New York, 1939), Columbia University Studies in History, Economics, and Public Law.

this juncture a new Assembly (1768), dominated by a conservative merchant-Anglican coalition, partially submitted to Parliament and won the animosity of other and more hardy colonials. This rift was further widened when in 1770, upon the repeal of all the Townshend Acts save the symbolic tax on tea, this same New York Assembly again broke colonial solidarity and voted to discontinue the non-importation agreements on all commodities but tea. Between 1770 and 1774, therefore, in lieu of further provocative acts by either Ministry and Parliament or colonials, a troubled calm prevailed in New York and the other colonies. It was apparently just at the end of "hostilities" and the beginning of this peaceful interim that fourteen-year-old John Loudon McAdam landed on lower Manhattan Island.

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Few details are known of the life of William McAdam, the New York uncle of John Loudon. Some years before his young nephew arrived in New York he married a Dutch-American named Ann Dey, who bore him no children.[2] Several well-authenticated

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2 James Paterson in his History of the County of Ayr (Ayr, 1847), I, pp. 308-309, describes this lady as "Dey-Ann-Dey." William McAdam in his genealogical letter to Charles McAdam, 30 October 1858 (Katherine L. Scott MSS., Hest Bank, Lancashire), describes her as "Da-Anne-Dey."

facts indicate that he was a successful merchant of the city, and undoubtedly a man of some prominence. He was one of twenty merchants who in 1768 founded the New York Chamber of Commerce. He is mentioned twelve times in the minute book of that organization, and served in 1774 as its treasurer.[3] His business establishment was located near the New Dutch Church, where in 1766 he advertised for sale "Iron-bound Butts and Puncheons, genuine Batavia Arrack in Bottles, Frontiniack, Priniack, and Madiera, etc."[4] In 1771 he and other merchants petitioned the Common Council of the city, complaining that while they had been granted exclusive permission to erect a market on Corporation ground, and had invested £500 in a structure, it now appeared that a group of competitors had also been given the same right. They requested that their monopoly be continued.[5]

Of William McAdam's political loyalties there can be little doubt. His prominence in the Chamber of Commerce is at least indicative.

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3 Colonial Records of the New York Chamber of Commerce, 1768-1784 (MS. in the New York Public Library).

4 John A. Stevens, Colonial New York Sketches, Biographical and Historical, 1768-1784 (New York, 1867), p. 148.

5 New York Common Council Proceedings, VII, p. 326, 24 October 1771 (MS. in Library of New York Genealogical and Biographical Society, New York City).

The New York Chamber of Commerce was very zealous in cooperating with the British army and navy from 1776 to 1783. General Howe relied on it to rule the city. In its votes of thanks to British officers it always spoke of the Americans as 'rebels' and the war as an 'unnatural rebellion.'[6]

More personal is the fact of his exile during a part of 1776 when the "rebels" were in control of the city, and again in his inclusion among fifty-nine prominent Loyalists who were attainted by act of the Patriot Assembly in 1779.[7]

Nothing further is known about the life of William McAdam. Especially unfortunate for present purposes, however, is the complete lack of information revealing the personal relationship of William McAdam and his immigrant nephew. In view of McAdam's youthfulness on arriving in New York, perhaps it would be reasonable to conclude that he looked upon his uncle as his father, while the uncle generously acted the part. Certainly John Loudon McAdam early imbibed his uncle's political proclivities, and his financial success as a merchant while still a very young man again suggests the influence and aid of the benevolent uncle.

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6 Flick, op. cit., pp. 99-100.
7 See below, pp. 55-56.

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The year 1774 marks the date at which the dispute between the Mother Country and the continental colonies ceased to be a family quarrel and became an "irrepressible conflict." In the attempt to punish Massachusetts for the Boston Tea Party, Parliament in 1774 passed four repressive measures known in America as the "Intolerable Acts." Only one of the four, the Quartering Act, affected New York directly, but all four, together with the Quebec Act, were utterly repugnant to most American colonists, even to many who later turned back when the controversy developed into a war for independence.

Events moved rapidly following the passage of these so-called "Intolerable Acts." There met in New York City the First Continental Congress (September 1774), which coalesced resistance to Parliament and planned a Continental Association;[8] an open skirmish was fought at Lexington, Massachusetts, in April 1775; and a Second Continental Congress held its first meeting in Philadelphia (10 May 1775). A second desultory engagement occurred in June the same year, this time in the city of Boston; and by the summer of 1776, the sequence that began in 1774 in an effort to secure redress of grievances had

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8 An agreement designed to enforce non-intercourse.

been allowed to drift without direction until a majority of Americans applauded the action of the Continental Congress in July 1776 declaring thirteen of the continental colonies forever independent of the British crown and Parliament.

John Loudon McAdam in July 1776 was not twenty years old. Yet he was of military age, and tradition has it that, following in the political steps of his uncle, he decided to cast his lot with the King. Consequently he joined a military unit formed by Oliver DeLancey,[9] a member of a leading family and a wealthy Loyalist who had been commissioned brigadier general for the purpose of raising a regiment. This group was known widely as DeLancey's Brigade, and was quite active during the early years of the war. All that is known with certainty, however, derives from one letter which McAdam penned on 12 August 1776.[10] He was "with Lord Drummond in his vessel," the brig

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9 Numerous "authorities" make this assertion. Paterson, loc. cit., says McAdam served as "a loyal volunteer;" William McAdam in the letter of 1858, op. cit., wrote that his grandfather was a "Royalist;" Georgina Keith McAdam, op. cit., clearly infers her father was a Loyalist, but does not mention any military service; and Roy Devereux (Mrs. Roy Pember-Devereux) in John Loudon McAdam (London, 1936), pp. 38-40, avers he served as a volunteer in DeLancey's Brigade, but cites no source for her statement.

10 McAdam to an unknown correspondent in Scotland, 12 August 1776. This letter is in the possession of Mrs. Katherine L. Scott.

Charming Polly,[11] which was "before New York." He had been forced out of New York (obviously by the Patriots, who at that time were still holding it), and wrote that he had recently been in Martinique, Antigua, Bermuda, and Dominica. He said, "I shall move about with the Fleet, unless New York is taken which I hope will be soon.... There will be much bloodshed before that happens as the Americans are very strongly intrenched."[12]

McAdam was not compelled to remain at sea for more than five weeks, for the Americans were not so strongly fortified as he thought. After a brief but desperate campaign, the King's forces reentered the city,[13] and were not dislodged again during the entire Revolution. McAdam must have returned with the troops, if indeed he was serving with them, or perhaps he landed sometime later with the civilian refugees who were returning to their homes. His uncle may have likewise returned to the city from "the back part of New Jersey," where, wrote his nephew in his letter from Charming Polly, "I am told /he/ has retired."

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11 George Cherry to Sir Guy Carleton, 31 May 1782, Headquarters Papers of the British Army in North America (Archives of Colonial Williamsburg, Inc.), doc. 4,700, describes this vessel as a navy transport.

12 McAdam to an unknown correspondent in Scotland, op. cit.

13 15 and 16 September 1776.

If he did manage to make his way back to New York, however, his spacious mansion house located "near the old glass house," together with several other houses belonging to such absent notables as Oliver DeLancey and William Bayard, was certainly in no condition for immediate occupancy, for it had been appropriated by General George Washington for use as a hospital just prior to the evacuation by the Patriots.[14]

It was in New York, therefore, "The Tory Haven" of the Revolution,[15] that McAdam spent his remaining years in America. It is doubtful that he served in a provincial brigade after his return in 1776, although DeLancey's Brigade mustered 226, the Queen's American Rangers and Hussars 480, the New Jersey Volunteers 810, the Loyal American Regiment 271, and others bringing the total to 3,147, all in New York in March 1779.[16] These forces were organized by Generals Howe and Clinton to supply much-needed manpower, and although there were 50,000 Tories armed by the Ministry during the Revolution, and New York furnished about one-half the total, their services were generally limited to defending occupied ports and harassing frontier areas.[17]

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14 Wertenbaker, op. cit., p. 80.
15 Ibid., Chapter V.
16 Ibid., p. 224.
17 Van Tyne, op. cit., pp. 182-183.

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Although New York in September 1776 contained only about three thousand persons, many aged and ill, it was soon filled to overflowing. Tories from the Highlands of "upstate New York" and from other colonies flocked to the city. It was indeed a Tory Haven, this headquarters of His Majesty's Armed Forces, where persecuted and dispossessed Loyalists from Williamsburg, Augusta, and Boston found refuge and food and friends.

Most (but by no means all) Loyalists, like William and John Loudon McAdam, had been born in Great Britain and were therefore more loyal to the Crown than were those whose ties with the Mother Country were remote -- through parents or grandparents. Perhaps Tom Paine is the exception which "proves" the general rule.

McAdam had no sooner landed in New York than he commenced business activities. Fortunately for him he could have had little to lose when a great fire enveloped the city on 21 September, his twentieth birthday. This conflagration destroyed 493 houses and left a path of desolation a mile long through the heart of the city. Very shortly thereafter, however, he was actively engaged in business negotiations. Devereux states

that he was appointed "Commissioner of Naval Prizes,"[18] and this was possibly the case, although there is available no substantiating evidence. He was, however, definitely "established on New Dock as an agent for the sale of naval prizes,"[19] though his activities were by no means limited to the work of a prizemaster.

There were two business companies in New York bearing the name McAdam. One, named McAdam, Watson and Company, was probably the firm of William McAdam, but this is by no means certain, and it may have been that even if it were operated by William McAdam, John Loudon McAdam shared an interest in it.[20] The other company bearing the name McAdam -- John McAdam and Company -- was most probably the property of John Loudon McAdam. The columns of Rivington's New York Loyal Gazette, later known as the Royal Gazette, carry numerous advertisements inserted by the latter company.[21] As early as December 1776 John McAdam

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18 Op. cit., p. 40.
19 Ibid., p. 33.
20 William Kelby, "Notes," ca. 1901 (New-York Historical Society MSS.), asserts that John Loudon McAdam was a member of this firm. But Kelby also states (in a manner demonstrably erroneous) that J. L. McAdam was one of the founders of the Chamber of Commerce (1768) and was its Treasurer (1774).
21 Files of this paper are in the Reserve Room of the New York Public Library.

and Company published notices of a public sale of prize goods, and again of a vendue at their store on New Dock. On 13 October 1777 this company advertised a public auction at the (Merchants?) Coffee House of "a fine black horse, only 5 years old, fit either for saddle or chair," and again in the same issue at the John McAdam and Company's "auction room nearly opposite coffee house"[22] offered a "variety of dry goods, suitable to the season. Catalogues to be seen at the time and place of sale." On 25 October this company offered a reward for a twelve-year-old Negro slave, "well-looked, and very black," belonging to Lieutenant Colonel Turnbull, and urged his delivery to John McAdam and Company.

On 1 November the Gazette carried the following notice, the first of its kind relating to John McAdam and Company:

> Public Notice is hereby given, that on Tuesday next will be sold, by John M'Adam and Company, at Bache's wharf, at 11 o'clock, the provisions of the privateer brigantine Freedom, condemned as a prize to his Majesty's ship Apollo, Philemon Pownall, Esq; commander, consisting of 34 barrels of beef, 13 barrels of pork, 2 hogsheads of Calavances, 3 barrels of flour, 2 kegs of butter, 6000 pounds of bread, and 40 iron bound water casks.

Thereafter John McAdam and Company sold numerous cargoes and

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22 This was possibly the famous Merchants Coffee House at the corner of Wall and Water Streets, just off the water front at the tip of Manhattan -- which would have been a very desirable location for a prize master and merchant.

frequently the captured privateers from which the cargoes were taken. For example, on 21 February 1778 this company offered at public auction at the Merchants Coffee House "The Ship Sally, lying at Brather's wharf, about 180 tons, a compleat cedar frame.... Inventory to be seen at John McAdam and Company's office."[23] In the same paper on 20 June 1778 the company advertised a public auction at the Merchants Coffee House, where the schooner Dispatch would be offered, and later the brigantine Polly with "all takle and Apparel" lying at Brownejohn's Wharf. On 26 August John McAdam and Company advertised for sale a quantity of salt on board Tartar, and on 29 August a public auction of "the elegant Schooner Alert," formerly Portsmouth, a prize of H. M. S. Solebay, both at Murray's Wharf. On 9 September there appeared the company's advertisement of a sale of flour, four carriage guns, swivels, "musquets," wine, rum, and other items, and also the schooner Adventure. On 14 November the company offered Polacre at auction the following Monday, the brigs Salisbury and Defiance on Wednesday, and the schooners Liberty, Victory, Eagle, and Swift on a later undesignated date.

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23 Rivington's Royal Gazette.

The above represent typical offerings of John McAdam and Company, but is by no means exhaustive, even during the months covered by the examples. Judging by comparative advertising in the Gazette, this company was one of the larger and busier houses of the city. Other companies whose public notices indicated similar business interests were those of John Taylor, Daniel McCormick, Thomas Ludlow, "McDavitt," James Davis, George Cherry, and Henry White.

Another documented illustration of McAdam's business operations is found in the Jamieson Papers.[24] Neil Jamieson was a Scottish merchant in Norfolk, Virginia, a partner in a firm of Glasgow merchants. In 1776 because of his Loyalist sympathies he was forced to take refuge with Lord Dunmore's fleet, and was transported to New York City. There he engaged in tobacco shipping and general merchandising. Volume XXI of his bound papers records twelve transactions (November 1777 to July 1779) in which he made purchases from John McAdam and Company, the largest amounting to £1,580. The total for the eleven purchases recorded with the sums involved in volume XXI of these papers, and for the single transaction cited in volume XXII, was £7,874.

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24 The Papers of Neil Jamieson, 1757-1789, vols. XXI and XXII (MSS. in the Library of Congress, Washington, D. C.).

In almost every case the commodity sold by McAdam was tobacco, probably captured Virginia leaf, although Long Island at the time produced some tobacco.

There exists still a third illustration of McAdam's business enterprise during the American Revolution. An undated petition (ca. 1778) is extant which was submitted by fourteen prominent New York merchants to General Sir William Howe requesting permission to export flax seed and lumber. This memorial was signed by John Loudon McAdam and prominent merchants such as Thomas Buchanan, Robert and John Murray, Richard Gates, and Samuel Franklin.[25]

During the British occupation of New York City there flourished a vigorous economic life, although the city languished under a military rule which was often shortsighted and oppressive. The food and fuel supply were frequently inadequate for the swollen population; there were military and naval contracts to be had; and most of the captured American privateers were brought here to headquarters for condemnation in the Court of Vice Admiralty, and for subsequent disposition. As the British leaders and the Loyalists after 1781 began to realize

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25 Headquarters Papers of the British Army in North America, doc. 1650.

that American independence was a reality, the pace of trading accelerated, for no Loyalist wished to be found holding extensive real or personal property at the conclusion of the bitter fratricidal strife.

It is evident, therefore, that although McAdam was a very young man while in New York City, his business dealings were by no means negligible. It appears probable that his affluent uncle staked him in business, that he enjoyed a considerable measure of success, and that when he was forced into exile with thousands of his fellows in 1783 he was in the possession of an ample fortune, or of that portion of his fortune he was able to salvage.[26]

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Life in Revolutionary New York was sometimes gay, more frequently somber. The city was not a part of America: it was isolated, neither British nor yet American. To the Loyalists

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26 This is suggested by Stevens, loc. cit., Paterson, loc. cit., et al. Nothing further is known about McAdam's business activities in New York. Professor Thomas J. Wertenbaker, who is probably more familiar with the documents relating to revolutionary New York than any other person, surprisingly states that in his researches he has seen no references whatsoever to John Loudon McAdam, and only one or two (as noted above) to William McAdam (letter to the writer, 27 February 1950).

it was an oasis; the revolutionaries called it a nest of traitors, a leper colony. It was strange, tense, and fearful. When the Comte d'Estaing anchored his great fleet in Sandy Hook Bay in July 1778, the city trembled with fear. It was almost as gloomy when the news of Saratoga arrived. Yet there were numerous occasions of public joy when military and naval victories were announced, or when the plans for great campaigns were whispered abroad. Yet through it all life went on in routine fashion -- there were marriages and births and deaths as the cycle of life ran its continuous course despite war and its hardships.

And in the winter of 1777-1778 John Loudon McAdam, in his twenty-second year, began to think of marriage. Then on 30 March 1778 Rivington's Royal Gazette carried the following notice:

> Married a few days since, Mr. John McAdam, Junior, of this city, Merchant, to Miss Glorianna Margaretta Nicoll, Daughter of William Nicoll, esq., of Suffolk County, on Long Island, a young lady of great Beauty and Merit, with a large Fortune.

Gloriana Margaretta Nicoll was the third daughter (born 13 September 1759) of William Nicoll, 3rd, whose Islip Grange estate in southern Long Island comprised some 50,000 acres,[27]

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27 Rosalie F. Bailey, The Nicoll Family and Islip Grange (New York, 1940), No. 29 in Publications of the Order of

and whose mansion house was considered a showpiece. The family is able to trace descent at least to the fifteenth century, to John Nicoll of Islip, Northamptonshire. William Nicoll, the patentee of Islip Grange, came to America with his father Matthias, who served as secretary to the Duke of York's commission, and who later was chosen mayor of New York City. The Nicolls during the succeeding century furnished much of the leadership of the colony. Gloriana Margaretta's uncle, William Nicoll, 2nd, had been for many years Speaker of the General Assembly of New York, and her father served as Clerk of Suffolk County (1749-1780) and as a member of the General Assembly from 1768 to 1775 when it was succeeded by the Patriot Assembly. The record of the debates and votes of the last session of the General Assembly indicate that William Nicoll played an important role in the proceedings, siding consistently with the wealthy conservatives James DeLancey and Frederick Philipse, yet with the same colleagues vigorously protesting both royal and

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Colonial Lords of Manors in America, pp. 5, 23. Of interest also are a series of articles entitled "First Families of America," of which three (printed first in the New York American on 20 and 27 October, and 3 November 1935) pertain to "The Nicolls." Edited by Courtlandt Nicoll, these articles were published in book form as The Nicolls, by Cholly Knickerbocker [Murray Paul] (New York, 1937).


EX BIBL UNIV. LOUISIANA

parliamentary intrusions upon colonial liberties.[28] William Nicoll was a member of a committee appointed "to prepare a state /-ment/ of the grievances of the colony and report same," and other special committees. He seemed to enjoy a large measure of respect in those critical deliberations.

A grandson characterized William Nicoll thus many years later:

> As a lawyer he was well read and sound, as a legislator active and industrious, laboring to protect and advance the interests of the Colony and his immediate constituents. He occupied an elevated situation in the times in which he lived.... He was a member of the last Colonial Assembly and attended the sittings. He was a decided friend and advocate of the Rights of the Colony but at the time when the Crisis arrived to act in open and acceded hostility to the Mother Country he was enervated by a paralysis that rendered him unfit and unable to take an active part in the scenes of the Revolution. He was well known to have openly and boldly expressed his opinion that the Colonies must and would be independent and had he been in the enjoyment of health no reasonable doubt can exist but he would have been a firm friend to the course adopted by the Colonies.... After a few years of feeble old age Mr. Nicoll died at Islip, March 1, 1780, aged 64 years.[29]

This may have been wishful thinking on the part of a patriotic grandson, but peculiarly enough, Judge Thomas Jones,

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28 Bailey, op. cit., pp. 24-29, presents a detailed summary of the day-by-day proceedings of the Assembly.

29 Samuel Benjamin Nicoll to the historian "Thompson," "in 1845," MS. letter in the Pennypacker Library, East Hampton, New York, quoted in Bailey, op. cit., p. 29.

contemporary historian of the Revolution, notes that among those who in the Colonial Assembly of 1775 voted against the Acts of Congress was William Nicoll.[30] Yet he was one of five well-known Loyalists who were not included in the Act of Attainder passed by the revolutionary New York Assembly in October 1779. Perhaps his prolonged illness during the critical years from 1775 to his death in 1780[31] explain why his extensive estates were never confiscated by the victorious Patriots, though his property was raided repeatedly by them, and his death was recorded by a Loyalist newspaper.[32]

Gloriana Margaretta's mother was Joanna De Honeur, of French Huguenot descent. She died in 1772, leaving her husband with five young children, all under twenty years of age.[33]

Into this wealthy and prominent family therefore, John Loudon McAdam married in 1778. On 13 April the following year his twenty-one-year-old wife presented him with a daughter, who

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30 Passage from Jones' History of New York During the Revolutionary War, 2 vols. (New York, 1879), quoted by Bailey, op. cit., pp. 28-29.

31 Rivington's Royal Gazette, 25 March 1780.

32 Bailey, op. cit., pp. 29-30.

33 Obituary in Gaines New York Gazette and Weekly Register, 7 December 1772, quoted in Bailey, op. cit., pp. 75-77; see also pp. 87-89, which indicate that a younger sister of Gloriana Margaretta, Joanna Rachel, married Kilby McAdam, son of John Loudon's uncle, Captain Gilbert McAdam.

was named Ann, possibly in honor of her father's aunt. A second child, a son christened William, was born to the couple on 23 August 1781.[34]

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McAdam's last years in New York could hardly have been happy, despite his marriage in 1778 and the birth of his first two children. Loyalists were often shamefully insulted and sometimes robbed by the British military, who called the Patriots "rebels" but sneeringly referred to the Loyalists as "damned traitors and scoundrels." The British civil government, however, treated the Loyalists well. The Patriots who began the struggle bearing the onus of appellations such as "levellers" and "rebels" soon came to consider the loyal subjects of the King the traitors, and acted and spoke accordingly.[35]

As has been stated, many thousands of Loyalists served in organized units against the Patriots. Some acted as spies for the British military, while others organized raiding parties

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34 These dates are from the Family Bible, now in the possession of Mrs. Katherine L. Scott.

35 Van Tyne, op. cit., in Appendixes B and C, pp. 318-341, presents in tabular form an enumeration, with summaries, of the principal laws directed against the Loyalists during the Revolution.

which periodically ravaged neighboring Connecticut and New Jersey, as well as the "no man's land" bordering on rebel counties to the north. Thus the fratricidal strife became ever more bitter, and early entered legislative discussions -- for many Loyalists were men of wealth.

The program for confiscation of loyalist estates went hand in hand with the move for American independence, becoming more radical as the war progressed and as the conviction grew that a separate government would be the result of the contest.[36]

The early Commissioners of Safety sought to protect Loyalist property, but the Provincial Congress as early as 1 September 1775 enacted legislation prejudicial to the property rights of Loyalists. In New York the Provincial Convention of 6 March 1777 passed resolutions providing for the appointment of Commissioners of Sequestration in seven counties, and added two counties to the list in April, and two more in May.[37] These commissioners could sell personal property belonging to Loyalists, and lease their real property to "loyal Americans." Finally, by an Act of Attainder passed 22 October 1779, the properties of the Loyalists were declared forfeited to the state. Fifty-nine persons, including William McAdam and other

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36 Flick, op. cit., pp. 184-185.
37 Yoshpe, op. cit., p. 13.

prominent Loyalist merchants, landholders, and former officials,[38] were declared ipso facto convicted and attainted of adhering to the enemy, and their estates forfeited. They were "forever banished from the State," and if found within its bounds again were to be "adjudged and declared guilty of felony," for which the law provided death without benefit of clergy! A Commission of Forfeitures was set up to deal with the fifty-nine persons named, and others of lesser notoriety.[39]

The progressively repressive measures taken by the revolutionary government indicated the course of the military and naval struggle. After Saratoga and the French intervention, independence daily seemed more certain, and the attitude of the Patriots more vindictive. At the same time the thoughts of McAdam and other New York Loyalists must have turned to the future. William McAdam died in 1779, possibly just after the Act of Attainder forever deprived him and his heirs of his estate. It is said that upon his death his estate was claimed by his nephew, who had been named beneficiary in his uncle's latest will. But this will had only one witness, thus the

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38 Neither John Loudon McAdam nor William Nicoll were included in this list.

39 New York Laws, 3rd Session, cap. 25, summarized in Yoshpe, op. cit., pp. 17-20; see also Jones, op. cit., II, p. 269.

widow inherited the entire estate, "promising to will it to /McAdam/... only did not -- so in 1833 or 4 /sic/ when she died it went all to her family."[40]

William Nicoll, as has been noted, passed away in 1780. He bequeathed his lands at Islip to his son William, but directed his executors to pay each of his three surviving daughters an annuity of forty-two pounds annually for ten years, and also left to them

> one of his rights to land at West Neck, Shelter Island, and all the neck adjoining Blue Point in Islip, and his deceased wife's lands in Brookhaven according to her design (or £200 from his son William's share if he does not give them a deed to same), and one third of 14,000 acres in the Town of Whippleborough bought with their grandmother D'Honeur's money, also all household furniture, plate, etc."[41]

It is not known how long Gloriana Margaretta and her sisters received this annuity, nor if they received the other bequests; for there was much litigation concerning this will in the ensuing decade.[42] After Yorktown, therefore, with independence virtually a certainty, with McAdam's uncle and his wife's parents deceased, and with the gloomy prospect of the early

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40 William McAdam to Charles McAdam, 30 October 1858, also mentioned in Georgina Keith McAdam MS., both in the possession of Mrs. Katherine L. Scott. Roy Devereux, op. cit., pp. 40-41, narrates the same story, probably basing it upon the above two manuscripts.

41 Bailey, op. cit., p. 31.

42 Ibid., pp. 59-64.

occupation of the city by vindictive Patriots, McAdam's thoughts must have turned to the security and friendship of his home in Scotland.

In March 1782 the North ministry fell, the King's bid for domination virtually ended, and the independence of America promised shortly to be a legal reality. Beverley Robinson perhaps voiced the despair of McAdam and multitudes of Loyalists when he wrote in 1782:

> Everything in this country has continued in a state of suspense ... until last Wednesday, July 31, on which day a packet arrived from England with the May and June mails. Ah, oh my dear Sir, what dreadful and distressing tidings does she bring us -- the independence of America given up by the King without any conditions whatever, the Loyalists of America to depend upon the mercy of their enemies for the restoration of their possessions, which we are assured they will never grant, the greatest part of the estates that have been confiscated by them are already sold.[43]

The Loyalist militia disbanded in disgust, and nightly posted incendiary posters accusing the advisers of the Crown of basely deserting them and handing over the thirteen colonies to the accursed rebels.

Following the news of the preliminary articles of peace, the exodus of Loyalists from New York and the other colonies became a veritable flood. During the ensuing thirteen months

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43 Beverley Robinson to Sir Henry Clinton, 8 August 1782, quoted in Wertenbaker, op. cit., p. 251.

near-chaos reigned in New York City. Just when McAdam decided to emigrate, or even precisely why, is not known today. He was undoubtedly, however, persona non grata, having served (according to tradition) in the Loyalist militia, having lived peaceably in New York City during British occupation, and having been an agent for the sale of captured American privateers. Furthermore, his uncle's notoriety as a loyal subject would have rendered his case even more difficult. He could have sought safety in obscurity, as did many in his plight, by moving to Philadelphia or Boston or Savannah; or he might have preferred to emigrate to the Bay of Fundy, to Nova Scotia or Canada, or to the West Indies, whence so many thousands of his fellows fled to escape the angry retaliations of the victorious Patriots.

The final Treaty of Paris was not signed until 3 September 1783, and New York was formally delivered to General Washington on 25 November the same year. In the meantime, however, on the fourth of May 1783, John Loudon McAdam and his little family boarded a British vessel, taking with them what goods and money they found portable, and set sail for the Mother Country. Indeed, they were a part of a temporary recession in the tide of

Europeans moving westward: for this one short space several thousand harassed and loyal Britishers increased the population of the Old World at the expense of the New.

CHAPTER IV

YOUNG SCOTTISH LAIRD

After five weeks on the tempestuous Atlantic, the tiny vessel transporting John Loudon McAdam and his family sailed eagerly into the Irish Sea, up the Firth of Clyde, and at last approached the quay in the harbor of Ayr. Surely, there was great delight in the tiny Royal Burgh of Ayr when the news was spread abroad that the young son of Waterhead, with other repatriated Scottish-Americans, had finally arrived. A relative by marriage commented on their return in the following words:

> I think Loudon McAdam shews a great deal of self-denial to land at Ayr -- A Jamaica Gentleman with a large fortune would have certainly taken London in his way -- But I believe the N. Amers are less extravagant than the West Indians. I dare say Mr. McAdam will find outlets enough amongst his poor Relations for the redundancy of his fortune, without any extravagancy in himself.[1]

The extent of this "fortune" is not known. McAdam may very well have been able to convert his assets, or at least a part of them, into Spanish dollars or sterling, which he could have carried with him as a part of his luggage. He may have

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1 Alexander Shaw, doctor in Vere, Jamaica, to his mother in Ayr, 18 August 1783, Shaw Kennedy MSS. (This collection is now in the possession of Mr. H. Shaw Kennedy, 12 Rosary Gardens, London, S. W. 7).

brought his inheritance from his uncle in this fashion. His wife's wealthy family may have given funds to her, she may have found it possible to transfer her modest inheritance from New York, or she may have inherited a substantial sum from her maternal grandmother. Or again, McAdam may have found upon his return to Ayrshire that at least a part of his patrimony of some £4,000 sterling was still intact. Of one thing it is certain: his activities of the next ten years would have been impossible had he been a penniless refugee in 1783.

William Logan, McAdam's brother-in-law, noted that his young relative was in bad health in 1783. He wrote in April of that year that he had been "ovar in Arran" arranging lodgings for him. He was expecting him to arrive in early June, "if his health will permit." This information was based on a letter from his son James, a soldier in the British army in America, who had seen McAdam in New York before his departure. He added that since McAdam was "in very bade health... a change of climate /is/ thought his only chance."[2] Indeed, a measure of

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2 William Logan, at Parke, to James Hunter Blair, 27 April 1783; the letter from the son was dated 17 March 1783, Hunter Blair MSS. (This collection is now in the possession of Sir James Hunter Blair, Blairquhan Castle, Maybole, Ayrshire).

bad health seems to have worried McAdam during most of his life, although he lived to see four score years. The nature of his malady (perhaps there were several), like the Apostle Paul's "thorn in the flesh," is not known to the present generation, but it was surely not an insuperable obstacle to a restless and inquiring mind. He was to live two full lives in the course of his eighty years, his later occupation (taken up at middle age) necessitating incessant travel by horse, carriage, and on foot over tens of thousands of miles of early nineteenth-century British roads.[3]

That McAdam's departure from America was not disastrous is further borne out by the narrative of his daughter, Georgina Keith:

> My Father made many valuable friends in New York, owing to the war it was crowded with officers of rank. His Alex. Cochrane, dear, dear Genl. Mercer, Genl. Drummond who was your uncle Williams godfather and Lord Keith who was afterwards mine. They were even then Colonels or Post-Captains -- Also Capt. Kennedy (afterwards Lord Cassilis) who married a near relation of my Mother. It was fortunate for my parents that the war sent all home together, and the American set were all very aristocratic. My father lost nothing therefore in point of station in the

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3 In recounting his travels in search of information about road-building and administration, however, McAdam told the Select Committee of the House of Commons in 1823 that he had been able to do comparatively little journeying during the years 1810-1813, owing to bad health (Testimony given 3 June 1823 before a Select Committee of House of Commons, Parliamentary Papers /476/ V. 53).

world by living so long abroad. He found his sisters in the same circle that they had always belonged to and as much visited and made of as ever.[4]

Even Adam Steuart, the husband of Grizel McAdam, and Captain John Shaw, who shortly afterwards married Wilhelmina Hannah McAdam, arrived in Britain in December 1782.[5]

Thus, on that June day in 1783, the skies of Ayrshire did not seem altogether lowering to the surviving male of the McAdams of Waterhead. The crossing had been safely negotiated, many friends had arrived and were daily arriving from the New World; money was not lacking to accompany youthful vigor in starting life anew in the Mother Country; and Ayrshire, along with the rest of Scotland, was in that era enjoying a mild agricultural and economic revolution, almost apace with the keen intellectual life of Edinburgh under the leadership of Adam Smith, Hume, Black, and (later) Burns. No doubt there were visits to Parke, near Ayr, the home of the Logans of Camlarg. Perhaps Mother McAdam was still living, made happy in her declining years by the return of her only surviving son with his American wife and children. Surely, the only brother, the "baby

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4 Georgina Keith McAdam, "History of the McAdams of Waterhead...," Katherine L. Scott MSS.

5 William Logan, at Parke, to James Hunter Blair, 17 December 1782, Hunter Blair MSS.

brother" of the family, was handsomely received by Grace McAdam Steuart and her family; by Wilhelmina McAdam Shaw, who had just married Captain John Shaw; and by the other surviving sisters, all unmarried.

Wilhelmina's marriage to Captain Shaw, while it may have been applauded by the bride's family, was deprecated by the groom's. He wrote as much to James Hunter Blair, although expressing the hope that "perhaps a little time may alter their opinion."[6] His brother, three thousand miles away, voiced the same regret:

> ...I'm no less concerned for Johns Match than you, but it cannot be undone, therefor [sic] we must try to reconcile ourselves to it, as it is an imprudent one. He will certainly be the Sufferer, & it would be as hard to add your displeasure to the misfortune; I hope by this time you & him are on your former terms of friendship. As I trust he will make every attempt to conciliate you....[7]

Hardly had the greetings passed among the reunited family group when McAdam took action to secure compensation for "the heavie losses" which, according to William Logan, he had

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6 5 April 1783, Hunter Blair MSS. James Hunter Blair, who assumed the name Blair upon succeeding to his wife's extensive estates, was a successful Edinburgh banker. He was living in Whitefoord Castle when McAdam returned from New York, and appeared to be a friend and patron of the McAdam family. He was twice elected Member of Parliament from Edinburgh, and served as Lord Provost of the same city. He was created baronet in 1786, and died in 1787 at the age of forty-five.

7 Alexander Shaw, Vere, Jamaica, to his mother, Mrs. Helen Shaw of Dalton, 12 July 1783; also, another of 18 August 1783, Shaw Kennedy MSS.

suffered in America.[8] The final draft of the Peace of Paris was signed on 3 September 1783, the shrewd American negotiators, led by Benjamin Franklin, refusing to submit to the demands of Shelburne that the treaty should specifically provide for compensation to Loyalists whose property had been confiscated. Oswald, leading the British commissioners in Paris, was able only to secure a pledge that the American Congress would "earnestly recommend" to the state legislatures the enactment of such legislation as would lead to the restoration of property to the Loyalists. But Parliament was aware of the weakness of this clause in the peace treaty, and in 1783 passed

> An Act for Appointing Commissioners to Enquire into the Losses and Services of all such Persons who have suffered in their Rights, Properties, and Possessions, during the late unhappy Dissentions in America, in Consequence of their Loyalty to His Majesty, and Attachment to the British Government.[9]

This legislation expressed great sympathy for the "Sufferers," and a Commission of five members was appointed to receive petitions for two years and to ascertain all just and valid claims. In the same act, Parliament addressed the King as follows: "[We urge] that Your Majesty's most earnest endeavors will be employed for procuring from the United States restitution of or recompence for the estates of those who have most unhappily

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8 To James Hunter Blair, 2 December 1783, Hunter Blair MSS.
9 Act 23 Geo. III, Cap. LXXX.

suffered...." In 1785 the Commission was reappointed for one year, and again in 1786 and 1787. In 1788 Parliament ordered that the Commission be further extended and empowered to make a final review of claims, and by 1 January 1789 to submit to the Commissioners for His Majesty's Treasury certified statements as to all bona fide and worthy claims, with the amount of compensation to be paid.

McAdam, accordingly, on 10 September 1783 proceeded to London with his wife to endeavor to make good his loss of the Privateer General Matthew.[10] This vessel, although not listed in the Admiralty Records among vessels granted Letters of Marque, was a converted sloop, and was owned by "Messrs. John McAdam and others."[11] McAdam formally petitioned for compensation on 21 August 1784.[12] Unfortunately, this petition is missing from among pertinent Admiralty papers.[13] On 7 March 1784 McAdam

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10 William Logan to James Hunter Blair, 10 September 1783, Hunter Blair MSS. Possibly there were other losses, and other business. This item only is known.

11 Parliament by Act 17 Geo. III, Cap. VII, empowered the Admiralty to issue Letters of Marque to the captains of privately-owned vessels for more intensive prosecution of the war against the thirteen colonies. Careful search of the eleven volumes of such grants (HCA 25, vols. LX-LXX, Public Record Office, London) fails to reveal a single reference to such a vessel, or to the name of McAdam.

12 Listed in the Index 8539/4, "Auditors of Imprests, Admiralty Office, American Sufferers Commissioners," Public Record Office, London.

13 Prolonged and careful search failed to locate this petition -- the only one of its bundle missing.

wrote to his friend James Hunter Blair, who was a member of Parliament at the time:

> I have taken the liberty of inclosing this to my friend an /sic/ Correspondent Mr. John Warder who has the direction of Memorialing the Treasury for payment of a Vessel of ours lost in the Public Service at Savannah an Affair in which we have been very ill used, may I use the freedom to recommend Mr. Warder to you for your advise /sic/ and assistance in procuring us a Settlement of this business, he writes me that he has got all the needfull /sic/ Certificates from Genl Provost who commanded at the time, so there is no want of proper evidence, all that he wants is a friend to help him....[14]

Unfortunately, the outcome of this petition is obscure, the available documents not indicating what followed. In 1786 McAdam complained that he was "so much disappointed in his remittances from America."[15] So vindictive were the Americans, and so depressed were American industry and trade by that date, he may never have received a penny. And in Great Britain, of 5,072 claims presented by Loyalists to the Commissioners on Claims, 4,118 were examined, and only 3,184 allowed. Pensions were granted to 588 persons, mostly widows, orphans, and others who had no way of earning a living.[16] McAdam was obviously not a beneficiary in any category. As late as 1821 there was parliamentary discussion of compensation for Loyalists: there must

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14 Written from Dumcrieff, 7 March 1784, Hunter Blair MSS.

15 See below, p. 78.

16 Alexander C. Flick, Loyalism in New York During the American Revolution (New York, 1901), p. 211, and Thomas J. Wertenbaker, Father Knickerbocker Rebels (New York, 1948), p. 265.

have been many surviving dissatisfied Loyalists even at that date.[17] McAdam may well have been one of them.

-3-

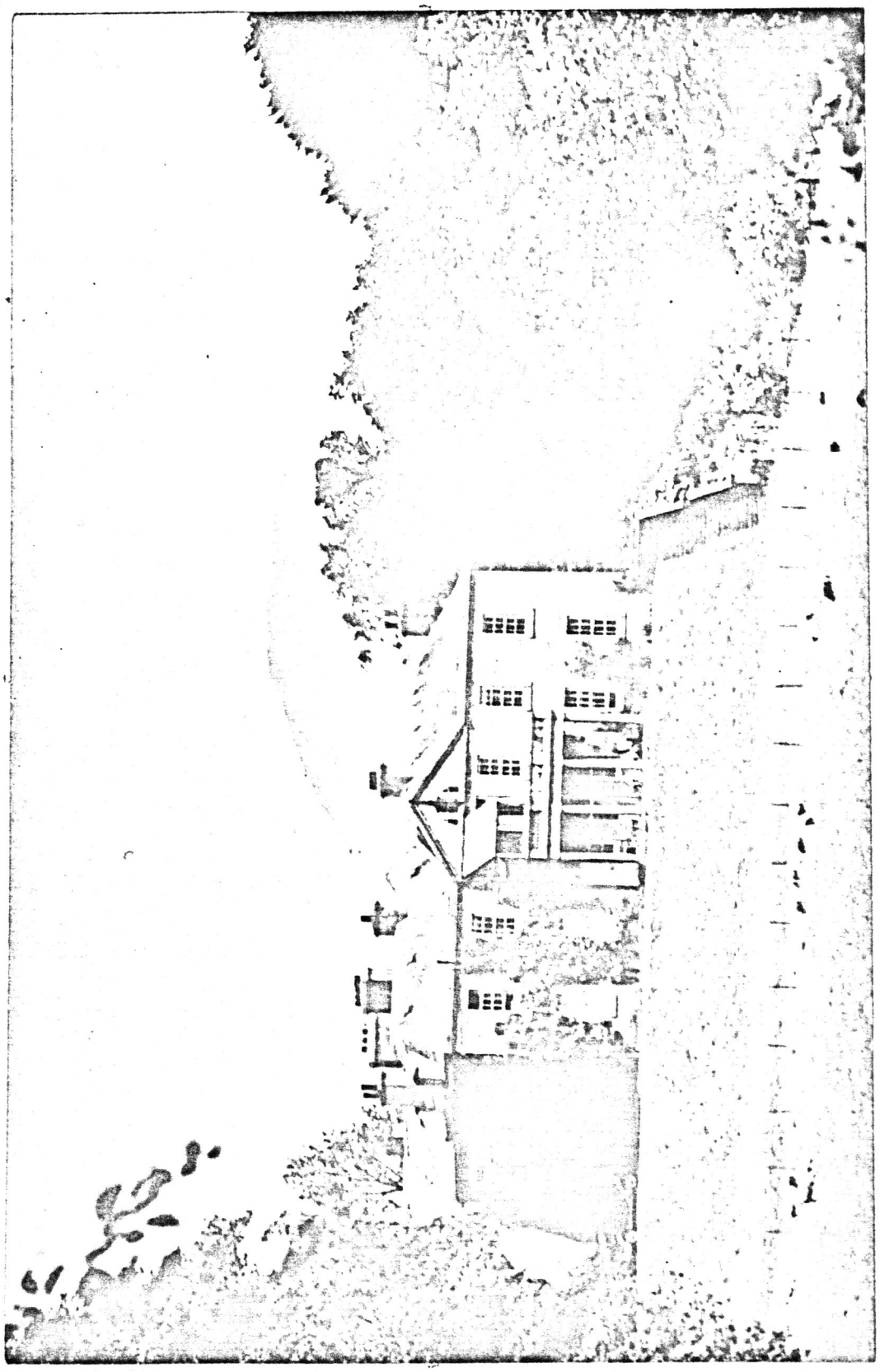
On 16 October 1783 McAdam returned with his wife to Scotland, and went directly to Dumcrieff House, near Moffat, Dumfriesshire. This was the same house which he had so often visited as a boy, when his grandmother had lived there. In 1783 it was owned by Lieut. Colonel Johnston of the Royal Artillery, who had acquired it the year before from Sir George Clerk. No doubt happy childhood memories, coupled with the desire to secure rest and a return of good health, prompted McAdam to choose this comfortable and delightfully-situated manor house. In this house on 10 July 1784 was born a second son to John Loudon and Gloriana McAdam. On 5 August the infant was baptized by the Reverend Mr. Brown, Minister in Moffat, and named James. He survived only sixteen months, dying at Sauchrie in Ayrshire on 2 November 1785.[18]

It was while at Dumcrieff, likewise, that another great sorrow befell the entire McAdam family. Grizel, called by Georgina Keith "the flower of the sisters," and a great family favorite,

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17 Hansard, N. S. IV (21 March 1821).

18 These "vital statistics" are from the Family Bible, which is in the possession of Mrs. Katherine L. Scott.



DUMCRIEFF HOUSE, NEAR MOFFAT, DUMFRIESSHIRE

died while giving birth to her third child, a boy whom his father named William McAdam. The birth occurred on a wild winter's night, and McAdam, who had traveled through heavy snows from Moffat to the Steuart home, arrived in time to be present at the tragic death of his sister on 2 February. Shortly thereafter, Adam Steuart was unfortunately called away to Liverpool on urgent business, and Elizabeth, the sister next in age to John Loudon, and unmarried, offered to care for the newly-born boy and his sisters.

To that desolated home, /it is recorded/, came the elder sister Elizabeth, the good Auntie Betty -- to whom we all owe so much -- There and then she commenced the great and devoted duty -- to her sister's children and grand children, which only ended with her life -- a devotion of more than forty years.[19]

Having decided against Camlarg and the other estates in his intermittent negotiations of 1781-1782, McAdam in 1785 purchased the fine estate and house of Sauchrie. This property had during the 1770's belonged to a man named John Hutchinson, who in 1783 sold it to William Wallace. Wallace was in financial difficulties, and on a disposition dated 4 August 1783, John Hunter, Writer to the Signet, acting as trustee for both Wallace and his creditors, was given the right to offer Sauchrie at public

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19 From an unsigned manuscript entitled "Family Traditions & Early Recollections," Katherine L. Scott MSS. Actually, Elizabeth was the youngest of the sisters, not "the elder sister Elizabeth."

roup.[20] This property was offered repeatedly from 10 October 1783 onward, but there were no takers until "John Loudon McAdam, late merchant in New York, N. America," purchased the entire estate on 2 June 1785, for £3,000 sterling. The disposition was executed 7 December 1786, and McAdam's personal rights were secured on 17 February 1787 by registration of the seisin.[21]

Sauchrie is a small but amply commodious manor house, of the type the McAdam family seemed always to prefer.[22] Situated on a low eminence among the verdant, gently-sloping hills of Maybole parish, midway between the towns of Maybole and Ayr, Sauchrie occupies a delightful location, "esteemed," said Paterson, "one of the pleasantest residences in Carrick."[23] Although McAdam did not reside here continuously, Sauchrie was his official home from October 1785 until his final departure from Scotland in 1798.[24]

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20 Particular Register of Seisins, Ayrshire, vol. 29, f. 377.

21 Ibid., vol. 31, f. 296.

22 E. g., Dumcrieff, already mentioned; Ballochmorrie, built by William McAdam in 1830, near Pinwherry, South Carrick; and others.

23 James Paterson, History of the County of Ayr... (Ayr, 1847), II, p. 375.

24 The property is described in the quaint language of eighteenth-century legal terminology, as follows: "...the forty shilling land of old extent of Sauchrie with the manor place buildings Mosses muirs yards orchards parts pendicles and pertinents of the same and the forty three shilling and four penny land of old extent of Craigshean with the houses buildings Mosses muirs yards orchards parts pendicles and pertinents of the same together with the Teinds both great and small and the fishings

The Family Bible records that at Sauchrie a fourth child was born to the McAdams on 9 April 1786, whom his parents named James Nicoll, thus perpetuating the name of the last Waterhead, despite the death of their first child of that name. The family moved into Ayr for the winter of 1786, and apparently followed this procedure for some years, for on 3 December 1787 their second daughter was born, Gloriana Margaretta, and on 2 November 1789, a third daughter, Georgina Keith, both in Ayr.

The various Ayrshire "Registers of Deeds" show that McAdam concluded several business transactions of a personal nature while resident in Ayrshire. On 25 March 1784, he was seised "in Knockshinnock, Culreoch, and others," in the Parish of Connock, in security of a bond in the amount of £1,175, by James Logan of Knockshinnock and John Logan of Carcow, his distant cousins.[25] Two years later this property was disposed of by McAdam to the Edinburgh banking house of Sir William Forbes, James Hunter and Company.[26]

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with the milns Multures sequels and services thereof and together with the seats in the parish church and burying grounds thereto belonging all lying in the Barony of Merkland Parish of Maybole Baliwick of Carrick Shire of Ayr...," Bond of Corroboration, recorded 28 May 1799, "General Register of Seisins," DCX, 235. This document, and all legal documents hereinafter cited, are in the Scottish Record Office, Edinburgh.

25 "Particular Register of Seisins, Ayrshire," XXX, f. 88.

26 Ibid., XXXI, f. 154.

In 1787 because of his various business undertakings (see Chapter V), McAdam found it necessary to borrow £1,300 sterling from Hunter and Company, Ayr bankers, for which he executed a bond on 19 February of that year. His brother-in-law, William Logan, and his servant, William McKirgo, witnessed the signatures. It was not until June 1793 that he obtained an official "Discharge and Renunciation" by Hunter and Company, although it is recorded that he made full repayment of both principal and interest on 11 January 1788.[27]

There was a minor disagreement between McAdam and the trustee of William Wallace, then deceased, for McAdam claimed deduction from the purchase price of a small sum for the expense of the repair of some houses and dikes at Sauchrie. The parties agreed to submit their dispute for amicable solution to William Craig, Advocate and Sheriff Depute for Ayrshire. Craig on 4 March 1790 decided in favor of McAdam, and ordered that he be given a refund of £80.17.2.[28]

In November 1786 "John L. McAdam of Sauchrie, Esquire, Superior of the Lands, Teinds, and Muirs" of Aiket, with the Manor House of Borland, in the Parish of Dunlop, granted a Precept of Clare Constat to John Dunlop of Aiket who was heir to

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27 Ibid., f. 289; also, ibid., XXXVI, f. 486.

28 Register of Deeds, Dalrymple Office, CCXLVIII, pp. 614-618.

his father, John Dunlop.[29] This property finally came to McAdam, as heir to his father, on 16 August 1792.[30] He quickly disposed of it, transferring it the same day to James Neill of Schaw.[31]

-4-

McAdam's interests during his Ayrshire period were not all economic. Never a literary person, but always a man of business, he nevertheless in 1787 joined many of the gentry of his county in patronizing the struggling Ayrshire Bard, Robert Burns. In the famous Edinburgh edition, published that year, the poet reluctantly included a list of the subscribers at five shillings each, enumerated no less than seven McAdams: "John Loudon M'Adam of Sauchrie, Esq. [p. xxx]... Miss Elizabeth M'Adam, Ayr [p. xxxii]... John McAdam, Esquire, of Craigengillen, Mrs. McAdam of Craigengillen, Miss McAdam of Craigengillen [p. xlvi]... Gilbert McAdam of Dunaskine [p. xlvi]... [and] Mr. James M'Adam, Ayr [p. xxxiv]...."[32]

Further evidence, not altogether conclusive, links McAdam with Burns. On 20 November 1786 Burns addressed a curious letter

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29 Particular Register of Seisins, Ayrshire, XXXI, f. 247.
30 Ibid., XXXVI, f. 122.
31 Ibid., f. 175.
32 Robert Burns, Poems, Chiefly in the Scottish Dialect (Edinburgh, 1787). The "Mr. James M'Adam, Ayr," was probably a younger brother of Craigengillen, for it is known that of the six brothers in that generation, the second eldest (next to John) was named James.

to William Chalmers and John McAdam. The latter could hardly have been the old and ailing John McAdam of Craigengillen, but was probably John Loudon McAdam of Sauchrie, who was only three years older than the poet. He wrote,

> We, Robert Burns... Poet-Laureate and Bard in Chief, in and over the Districts and Counties of Kyle, Cunningham, and Carrick, of old extent, To our trusty and well-beloved William Chalmers and John M'Adam, Students and Practitioners in the ancient and mysterious Science of Confounding Right and Wrong....[33]

Burns enclosed a song (unknown as to name, but perhaps "The Court of Equity"[34]), and described it as that "nefarious, abominable, and wicked Song or Ballad." He asked his correspondents to appoint the worst wretch known to them, order him to kindle a fire at the Cross of Ayr at noontide, and render the said song to ashes.

-5-

Family ties are strong in Scotland. McAdam keenly felt the death of his sister Grizel in 1784, followed a year later by that of his infant son. In 1786 death struck for the third time in as many years. William Logan of Camlarg, husband of Margaret

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33 J. DeLancey Ferguson, The Letters of Robert Burns (Oxford, 1931), I, letter 58.

34 Suggested by the novelist of Burns, Mr. James Barke, in conversation.

McAdam, was very ill during the spring of 1786. He seemed to rally, however, and McAdam was able to say in a business letter to James Hunter Blair on 25 April, "Mr. Logan is wonderfully mended this fortnight. I do not flatter myself that his complaints are or ever will be amended entirely, but he seems to have got a respite at present." But by 27 May, Camlarg had taken a turn for the worse, and McAdam wrote to Sir James,[35] "I think he cannot last long." On 13 June he died. Writing from the Logan home of Parke on that day, McAdam told Sir James the sad news, stating tersely, "Our friend Camlarg died at noon this day. His last moments were easy as he had been in a state of insensibility for twenty-four hours." In the same letter, he called attention to the Logan financial problems:

> No doubt Mr. Hume will immediately think of putting the Estates of the Bank into some person's management -- Willy /the young Logan heir/ wishes much to have the business entrusted to him for his mother's sake. I think his attention during his Father's illness both to him and his business entitles him to every degree of countenance and assistance, otherways I would not take the Liberty of troubling you for your Patronage. He thinks if you were to speak to Mr. Hume in his behalf it would be of the greatest consequence he will give the same security his Father did. I am really ashamed of the trouble I give you on this and every occasion, but your goodness has allowed me to go into a practice of applying to you on every occasion -- when I go too far I hope you will forbid me.

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35 James Hunter Blair was created Baronet in the spring of 1786 -- thus the title "Sir" becomes in order. William Logan served for a time as his factor at Blairquhan Castle, near Sauchrie. This letter and the one which follows are in the Hunter Blair MSS.

This friendly intercession was happily efficacious. Writing from Cumnock at the end of June, McAdam admitted to Blair, "/I am/ very much indebted to you for your friendly assistance in getting Willy Logan continued in the Factory, I am confident he will not discredit your recommendation." But he had a further request. His sister had decided not to renew the lease of Parke, which expired the following Whitsunday. She felt that the rent was beyond her means. McAdam suggested her needs would best be met by the house in Ayr that had recently been disposed of by George McCree, and was to be sold by the bank in July. He again asked the assistance of Sir James:

> I would purchase it with all my heart for her but I have been so much disappointed in my remittances from America it is not at present in my power -- The upset price I understand is £235 which is certainly very low as it is almost a new house -- if it goes to £300 it is a bargain, if you choose to purchase it Mrs. Logan will be very happy to be your Tenant, but if the purchase is out of your way, I will be very glad to borrow the money from you for the purchase and give you security on the Tack of Drumsuie which was purchased for Mrs. Logan, there are I believe upwards of fifty years to run and the advance rent exceeds a hundred pounds.... I hope to have it in my power to repay the purchase Money in a year or two....[36]

There is no existing record of the success or failure of this venture, but throughout a long life McAdam was always careful -- too careful, his enemies later said -- to secure the interests and well-being of his immediate and more remote

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36 30 June 1786, Hunter Blair MSS.

relatives. Loyalty to friends and family was a dominant trait of his character, and he never hesitated to go to high places for help if a problem was beyond his financial capabilities.

-6-

The annual autumn removal to Ayr was not solely for reasons of comfort and health. As the largest town in the county, Ayr was readily accessible by road and water, and was the scene of a vigorous business and social life. Sauchrie, only five miles south of Ayr, was often well-nigh isolated by winter snows and spring mud.

It was on 25 March 1789 that this ambitious young laird, as a resident of Ayr, "was admitted and received Burgess and Gild Brother of this Burgh and to all the privileges and advantages thereof he having made payment to the Treasurer of One Hundred Pounds Scots of Composition or entry money...."[37]

By September 1793 he was a member of the Burgh Council. On 27 September, the same date that he took oath as a Councillor, leets were drawn up for the offices of Provost, Baillies, Dean of Gild, and Treasurer. On the leet for Dean of Gild appeared

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37 "Minutes of the Royal Burgh of Ayr," 15 October 1789, Town Clerk's Office, Ayr. The subsequent remarks about McAdam's connections with the Council are from the same source.

the names of Hugh Stevenson, William Bowie, and McAdam. The results of the election are not recorded, but the evidence indicates McAdam was unsuccessful in obtaining this office. He attended a total of fifteen meetings of the Council in the ensuing twelve months. On 27 November 1793 he was named to a committee which was directed to prepare a plan for town development near the school green. In June 1794 the Provost was prompted by an invasion "scare" to call a special meeting of the Council for the purpose of forming several militia companies with which to meet the hated French revolutionaries should they attempt to land. It was determined to form three companies of forty privates -- truly a formidable force with which to defend the extensive coast of Ayrshire! -- each officered by a Captain Lieutenant and an Ensign. The Earl of Eglinton, the Lord Lieutenant, was notified of the action of the Council, while the Magistrates and Dean of Gild, together with Messrs. Murdoch, Shaw, Stevenson, and McAdam were constituted a committee to nominate the six officers. This group reported on 11 June, recommending as Captain Lieutenants, John Hamilton of Sundrum, John Murdoch, late Lord Provost, and John Loudon McAdam. In later life McAdam stated he received before he left Ayrshire (1798) a commission as Major, which was one of the last having

the sign manual of King George III.[38]

McAdam also was a Deputy Lieutenant for the Muirkirk District in Ayrshire, obviously appointed by the Lord Lieutenant in accordance with the provisions of the Militia Act for Scotland, 1797.[39] By the terms of this Act, one deputy lieutenant was to be appointed to each county sub-division, subject to the general direction of a lord lieutenant for the county. Within his respective district, therefore, a deputy-lieutenant was the leading local military personage. In view of the fear of imminent invasion after 1793, the assignment was considered an important one. McAdam seems to have been busy with the duties of the post, especially after the passage of the obnoxious 1797 Militia Act. All Scotland was aroused by this law, as well as by others abridging the freedom of Assembly, suspending habeas corpus, and suppressing Corresponding and other societies (including trade unions). Upon at least one occasion (in the autumn of 1797) McAdam reported to the Lord Lieutenant of his efforts to break

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38 This is a statement made by Georgina Keith McAdam, op. cit. Although he had been troubled by intermittent attacks of insanity from 1788, it was not until 1811 that George III was declared permanently insane, and his son appointed Regent.

39 Act 37 George III, Cap. 103. Georgina Keith McAdam states that her father was named in the act, but this is not the case. She further avers that "they could not fill his place when he left Scotland."

up a small group of "conspirators" at Muirkirk.[40]

At least one writer records that McAdam held still another office in Ayrshire, serving as Justice of the Peace for the county.[41]

-7-

It is not known whether McAdam was interested in road construction and administration prior to 1787, when, at the age of thirty-one, he took his seat as a road trustee at the general meeting of the Ayrshire Turnpike Trust. There is, of course, the story, probably apocryphal, that as a youth McAdam first revealed an interest in roads, making a model or drawing of a section of the Girvan highway between Maybole and Kirkoswald.[42]

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40 In the Library of the University of Edinburgh among the papers of Lord Arniston, who was Lord Advocate of Scotland in 1797, are two letters from McAdam to the Lord Lieutenant (one from Muirkirk, 29 September 1797, the other from Ayr, 12 October 1797), together with a petition from the two youthful offenders and Eglinton's letter of transmission recommending clemency. McAdam suggests that if the Lord Lieutenant wishes to show mercy he should at least "take security for their future good behaviour." This group met at the house of James Kennedy, Muirkirk innkeeper, and while posing as a "reading society" allegedly met to choose delegates to attend a "conspiratorial" conclave at Strathaven.

41 George Smith Barry, "John Loudon McAdam," Journal of the Institute of Municipal and County Engineers, LXIII, No. 10 (10 November 1936), p. 29.

42 See above, p. 27. This story is repeated in the Dictionary of National Biography (XII, p. 395); by Devereux (p. 31); and by Barry (p. 22).

Although this precocity may have been evident prior to 1770, the first documented evidence of his interest in roads is in connection with the Ayrshire Trust. In his testimony before the Select Committee in 1823, in fact, he categorically cited 1794 as the year in which he became intensely interested in the subject, but regretfully admitted that his military preoccupations during the four succeeding years (1794-1798) prevented active research.[43] But in 1819 he wrote in general terms that roads first claimed his attention while serving "as a magistrate and commissioner on the Roads of Scotland for many years."[44]

In any event, he did little or nothing in regard to roads prior to 1787. As a landed proprietor of moderate means, he was obligated to serve as a Trustee (or Commissioner) for Turnpike Roads. In Scotland, administration was almost entirely county-wide, in contrast to the provisions for England and Wales, which established numerous autonomous trusts in each county, disregarding to a limited extent county boundaries. At the first meeting that McAdam is recorded to have attended in Ayrshire (23 October 1787), he was appointed a member of "a Committee on the Road which departs from the road between Ayr and Douglas at

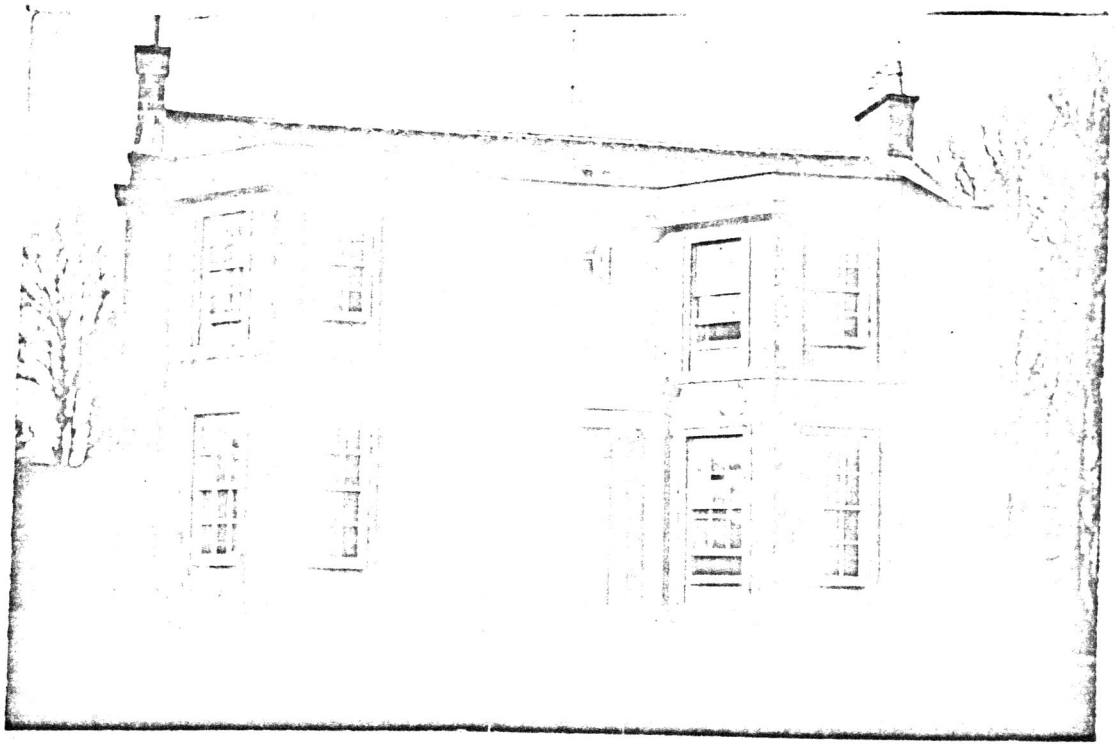
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43 Parliamentary Reports, 1823 (476) V.53, evidence by McAdam, 3 June.

44 John Loudon McAdam, A Practical Essay on the Scientific Repair and Preservation of Public Roads (London, 1819), reprinting McAdam's "Memorial to the Board of Agriculture."



SAUCHRIE HOUSE, MAYBOLE PARISH, AYRSHIRE



BALLOCHMORRIE HOUSE, COLMONELL PARISH, AYRSHIRE

Garronhill in the Parish of Muirkirk, and leads from Garronhill aforesaid by Blackside and Waterhead and from thence to the confines of the County of Lanark."[45]

McAdam attended later meetings of the Trust in Ayr on 21 October 1788; 18 October 1791; and 5 March, 2 April, and 30 October 1792. His name does not appear after 1792, and he seems not to have taken a leading role as Trustee. Later in life, however, he said that at this period in his experience he saw much wasteful expenditure of public funds without consequent improvement of the roads, and he resolved to acquaint himself with the processes of good road administration, construction, and repair.[46] It is very possible that, as suggested by Barry, McAdam carried out some experiments at road construction in forming the road leading from the Alloway-Maybole highway to his estate at Sauchrie. This might explain the entry in the Family Bible in 1790, stating the exact distance "between Sauchrie House and the high Road through Pinman Farm now made is one mile 7 chains 30 feet English measure."[47] A surveyor always knows the exact distance of the road he is constructing.

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45 Unfortunately, the Ayrshire Turnpike Trust records, examined by Mr. G. S. Barry in 1936, have been "lost" -- probably cast out as salvage during the late war. The information following, relating to the Ayrshire Trust, is based on the paper by Barry, op. cit., pp. 23-24.

46 "Report of the Select Committee... (1823)," op. cit. Evidence given by McAdam on 28 May.

47 It has been noted that Mrs. K. L. Scott now has this Bible.

CHAPTER V

THE BRITISH TAR COMPANY

Archibald Cochrane, 9th Earl of Dundonald, "pioneer chemical manufacturer, humanitarian coal owner, and scientific visionary...:" such is the verdict of a twentieth-century historian.[1] Dundonald's fertile brain could have obtained him rating as one of Britain's great scientists, but "instead, he is a shadowy figure which flits across the stage of the industrial revolution to end his days miserably in a Paris slum."[2]

Archibald Cochrane was the second son of Thomas, the 8th Earl of Dundonald. Born in 1748, he was the eldest surviving son of his father, who died in 1778. In 1764 he had entered the Army as a cornet in the 3rd Dragoons, but preferring the Royal Navy, he became a midshipman and later acting-lieutenant of a vessel off the coast of Guinea. Returning to Scotland upon his elevation to the family earldom, he settled at his Culross Abbey estate in Fifeshire, and devoted himself to scientific investigations and the development of the coalfields on his properties.[3]

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1 Archibald and Nan L. Clow, "Archibald Cochrane, 9th. Earl of Dundonald (1749-1831)," Chemistry and Industry, no. 24, 10 June 1944, p. 217.

2 Ibid.

3 Sir J. B. Paul, The Scots Peerage,... (Edinburgh, 1905), pp. 358-362. It is fairly well established that Cochrane was born in 1748, rather than in 1749. This discrepancy cannot be attributed to the adoption of the Gregorian Calendar, for the Scottish Privy Council in December 1599 effected the alteration, effective in January 1600.

This interesting and colorful figure of Georgian Britain took out no less than ten patents, ranging from improved textile machinery to new processes for the production of carbonate of soda and alumina. He was one of the first to see clearly the relationship between chemistry and agriculture, and he wrote voluminously about all his activities.

Beyond reasonable doubt, Dundonald's greatest project was coal distillation for the production of an alternative to wood tar.

> In modern gas and coke oven industries tar is one of the products of the destructive distillation of coal in closed vessels, i. e. subjected to external application of heat. The readily condensed fraction called the tar liquor, also contains ammonia and the aromatic hydrocarbons essential to coal-tar dye and synthetic chemical production. Dundonald made no claim to the invention of extracting tar from coal in closed vessels, but he was the first to put it on a commercial footing.[4]

Great Britain had long been dependent upon foreign sources of supply for tar and pitch. In the eighteenth century, however, she found that by encouraging the North American colonies (especially the Carolinas and Georgia) in the production of naval stores, she could obtain adequate quantities from within the Empire. Consequently, she subsidized this industry to the extent of £1,250,000 from 1719 to 1779, through bounties varying from

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4 Archibald and Nan L. Clow, "Lord Dundonald," Economic History Review, XII, 1942, p. 49.

five to ten shillings per barrel.[5]

Even in the seventeenth century, experiments had been made in extracting tar and pitch from coal. On the continent and in Great Britain the search went on, haphazardly, to be sure, but nevertheless a definite search. In England the experimentation was carried on at Coalbrook Dale, Rochester, and Newcastle; in Scotland, at Edinburgh, where the ubiquitous Dr. John Roebuck founded a vitriol works at Prestonpans in 1749. By 1780, according to Lord Dundonald, he (Dundonald) had discovered a commercially practicable method of extracting tar from coal. Instead of the prohibitive prices earlier prevailing (twenty-eight shillings per barrel and higher), he could offer coal tar to the public at a much more reasonable rate. By-products of his process included coke, "cinders, lamp-black, volatile alkali, sal ammoniac, Glauber's salt, fossile alkali (or barills), varnish, varnish paint, and coal oils."[6] Dundonald's first patent was granted in 1781, his rights to prevail for fourteen years.[7]

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5 Ibid. See also Curtis P. Nettels, The Roots of American Civilization (New York, 1945), pp. 380-382.

6 "Account of the Qualities and Uses of Coal Tar and Coal Varnish with Certificates from Ship-Masters and others," London, 1785. This little leaflet, obviously written by Dundonald, was printed to be used as advertising matter. A copy is in the National Library of Scotland, Edinburgh.

7 Register of the Great Seal of Scotland, XX, no. 185 (1781).

During 1782 he established twenty tar kilns at Culross, where coal was readily available, and, in order to finance his enterprise, formed the British Tar Company. £900 was initially expended, and sales were opened in September 1782. The company was immediately successful, and the Earl was sanguine, hoping by this venture to retrieve his tottering family fortunes.[8] In 1784 and 1785, Professor Joseph Black gave him a carefully-prepared and optimistic report of the possibilities of the tar business. Adam Smith and Sir John Dalrymple were likewise interested in the venture. Thus encouraged, in 1785 Dundonald applied for and received a prolongation of his patent rights, protecting him for an additional eleven years (twenty-one years from 1785).

The British Tar Company continued to pour money into the undertaking. By 1788 they had expended £22,400 on tar works in England and Scotland, and hoped to realize £15,000 clear profit before the expiration of the patent.[9]

Generally, the British Tar Company considered it wise to erect its kilns adjacent to an iron works, in order to have a

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8 Dundonald to his uncle Andrew Stuart, 11 December 1782, quoted by Clow, "Lord Dundonald," op. cit., p. 49.

9 Dundonald to Stuart, 10 May 1788, quoted by Clow, "Lord Dundonald," loc. cit.

ready and certain market for its most abundant by-product, "coak" (as the word was spelled during the eighteenth century). A further consideration of major importance was the easy availability of "pit coal," which served as combined raw material and fuel for the tar kilns.

An interesting "prospectus" (undated), described the various products of the company, outlining the uses for each type.[10] There was "Tar No. 1," which was "raw tar," suitable for sheathing boards of ships; "Tar No. 2," which had been boiled, excellent as a prime protective coat for the bottoms of vessels; "Tar No. 3," ideal for the second coating for ship bottoms; and "Clear Varnish" and "Black Varnish," to be applied to the masts of ships, decks and sides. Experiments had been conducted, the prospectus continued, with sea pilings in Holland, and on numerous vessels plying the seven seas. Uniformly, claimed the author (Dundonald), excellent results had been obtained. Other broadcasts were issued by the British Tar Company, citing numerous testimonials of the efficacy of the various products derived from coal tar. This advertising campaign was very novel and vigorous, occurring, as it did, in the

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10 "Prospectus -- Description of, and Directions for using Coal Tar and Varnish prepared by the British Tar Company at their works," no date or publisher cited. (This printed document rests in the Small Collection, National Library of Scotland, MS. 1808, fol. 161-170.)

late eighteenth century. The company succeeded to a limited extent in persuading many to use its products, chiefly for nautical purposes.

It is probable that Dundonald would have admirably succeeded in his venture had the Royal Navy seen fit to utilize coal tar. Wood tar the navy used in vast quantities as a protective coating for exposed ship bottoms. Even the difficulties of supply ensuing upon the successful revolt of thirteen of the North American colonies, which were recognized by the mother country as independent states in 1783, failed to turn this business to Dundonald. The navy steadfastly persisted in ignoring Dundonald, an ex-naval officer. Richard Kirwan, who in 1797 inquired about the use of coal varnish for the navy, found that it succeeded too well, "the ships so treated not requiring such frequent repair!"[11] Not until 1822 did the Royal Navy finally commission a team of eminent scientists, including Sir Humphrey Davy, to inquire into the matter. They reported favorably; but by that date the Earl had been bankrupt for twenty-five years, his estates sold, and he himself was old and feeble.

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11 "Experiments on the Composition and Properties of Carbon in Bitumens, etc.," Philosophical Journal, I, 1797, p. 487, quoted by Clow, "Lord Dundonald," loc. cit.

It is not definitely known in what year McAdam became associated with his cousin, the Earl of Dundonald, in the work of the British Tar Company. Presumably, the earliest notice of his participation is given in the undated prospectus (see above), which urged buyers to address their orders to George Glenny, at the British Tar Company's London office (Walbrook), to the clerk of the works at Brosely, Shropshire, or to "Mr. John M'Adam, at Ayr, in Scotland." The first partners in the venture were the Earl of Dundonald and his two brothers, Alexander and John. McAdam joined the company in the capacity of plant manager, probably in either 1785 or 1786, although the first document extant which pertains to his relationship with the company is dated 1788.

In 1786 the British Tar Company obtained a ninety-nine-year lease of the "coalleries" on the estate of Kaimes, on the outskirts of Muirkirk, Ayrshire, from Joseph Hutchinson. Shortly thereafter, Admiral Keith Stewart of Glasserton, who was a brother of the Earl of Galloway, purchased the Kaimes' property, and, as required in the disposition, granted a lease of the Kaimes' coal lands to the British Tar Company for thirty-eight years on payment of a stipulated rent.[12] Harbor-side property

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12 This contract is rehearsed in a mutual discharge agreed to by James Alexander Stewart and John Loudon McAdam, recorded

was acquired from the Royal Burgh of Ayr in November 1786, on a fifty-seven year tack, granted on liberal terms and with preferential tax concessions to the infant industry.[13]

In June 1788 the Muirkirk Iron Company erected extensive buildings for the manufacture of pig-iron, in the immediate vicinity of the tar company's kilns. It was quickly realized by both concerns that a convenient and mutually beneficial arrangement could be made, whereby the chief fuel for the blast furnaces of the one could be readily supplied in quantity by the other. Accordingly, in April 1788 McAdam wrote to Dundonald about the sale of coke, which, he stated, was on hand at Muirkirk in large quantities. He wished to sell it, and also the "200 Barrells Tar and half stuff and about 100 Gallons Varnish on hand, for which I cannot reasonably expect a sale until the West India ships return when I am certain there will be a

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in the Register of Deeds, Durie Office (this volume and all Registers of Deeds and Seisins hereinafter cited are in manuscript form in the Scottish Record Office, Edinburgh), CCCL, 17 December 1811. Curiously, in no document is the Kaimes property described (as to area) more definitely than "from 30 to 40 acres."

13 This property, near the quay, was 200 feet long by 150 feet deep. The rent was only sixpence per fall. Coal tar and its products were put on the same footing with respect to Bridge Toll and Causeway Custom as coal for export. See Minutes of the Royal Burgh of Ayr, October 1786 to February 1787, Town Clerk's office, Ayr.

demand...."[14] He hoped to reduce the expensive establishment at Muirkirk, and bring it down to a level with their works at Enterkine.[15] In October of the same year, McAdam informed Dundonald that, in accordance with his permission already granted, he had made specific proposals to the Muirkirk Iron Company to supply them with all the coke produced in the tar company's twenty-four kilns at Muirkirk at 9 shillings per kiln, for a seven-year period. The coke would be delivered at the kilns, properly kilned, and of good quality. The tar company would be bound to deliver all its coke to the Muirkirk Iron Company, who, in turn, would be obliged to accept it at 9 shillings per kiln.[16] McAdam then explained that on weighing the coal he found one kiln to require four and one-half short tons per burning, so that nine shillings per kiln worked out to exactly two shillings per ton. Mr. Grinn, the agent of the iron company, wished to bargain about the price, and offered seven shillings per kiln, but McAdam

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14 McAdam to Dundonald, 11 April 1788, Dundonald MSS. (National Library of Scotland).

15 An estate with a mansion on the right bank of the Ayr River, Tarbolton Parish, Ayrshire, where Lord Dundonald first established tar kilns in Ayrshire. McAdam, in the same letter (11 April 1788) stated, "we are going on very well with four Tar Men at 6/-, manager 8/- per week, a Cooper at 7½d. per Barrell, and a Carter at 6/- per week."

16 McAdam to Dundonald, Ayr, 24 October 1788, Dundonald MSS.

told his employer he refused even to discuss the matter, and felt sure Grinn only wished "to frighten us into a bargain on the pretence that he can make their own coak [sic] cheaper, but I know the contrary to be the fact...." It might be well, he added, to ask him ten shillings if he insisted on seven!

The question was still pending in 1789, when McAdam again addressed the Muirkirk Iron Company (4 July), making detailed proposals to them.[17] His offer was substantially different from the proposals of 1788. The British Tar Company was willing to relinquish to the iron company those clauses of their lease of Kaimes' Colliery from Admiral Keith Stewart which pertained to the coal and "ironstone" rights, to enable the Admiral to grant a sixteen-year lease to the iron company, on condition that (1) the tar company's twenty-four kilns be kept supplied with high-quality coal, delivered at the kilns, (2) if within the sixteen-year period of the lease, the British Tar Company decided to increase the number of kilns, the iron company would be obliged

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17 McAdam's letter, reproduced in "Answers for John Loudon McAdam, Proprietor of the British Tar Company's works at Muirkirk; to the Petition of the Muirkirk Iron Company," 14 October 1802, Signet Library (Edinburgh) Court of Session Papers (hereinafter cited as C. S. P.), CCXX, no. 20. Much of the following narration is based on McAdam's "Answers," and the Muirkirk Iron Company's "Petition" of 29 June 1802, printed in ibid. Both are very lengthy documents, with detailed appendixes.

to supply additional stated quantities of coal, (3) the "fire-engine," pit-levels, house, gin, etc., to be paid for by the Muirkirk Iron Company at a price established by a neutral and mutually acceptable evaluator, (4) for the coke "on the bank" the tar company be paid £375 sterling, and (5) the right to one seam of coal, "the five foot seam," be reserved to the British Tar Company.

That same day the Muirkirk Iron Company accepted the terms offered by McAdam on behalf of the tar company, qualifying their acceptance by declaring,

> in case your people do not coak [sic] the coals to our liking, we shall have the option to any time of taking over the working of the kilns into our own management; and in this case, you are to pay us the same price for working these kilns, as under the like circumstances you are bound by contract to Messrs. Banks and Onions in Shropshire.[18]

McAdam accepted these qualifications, although later he may well have rued the day he released the valuable Kaimes' coal with such loosely-worded qualifications. No provision was made for arbitration: simply, "if you do not coak [sic] the coal to our liking...." This clause resulted in more than ten years of acrimonious dispute, and probably was the real reason for McAdam's departure from Scotland in 1798.

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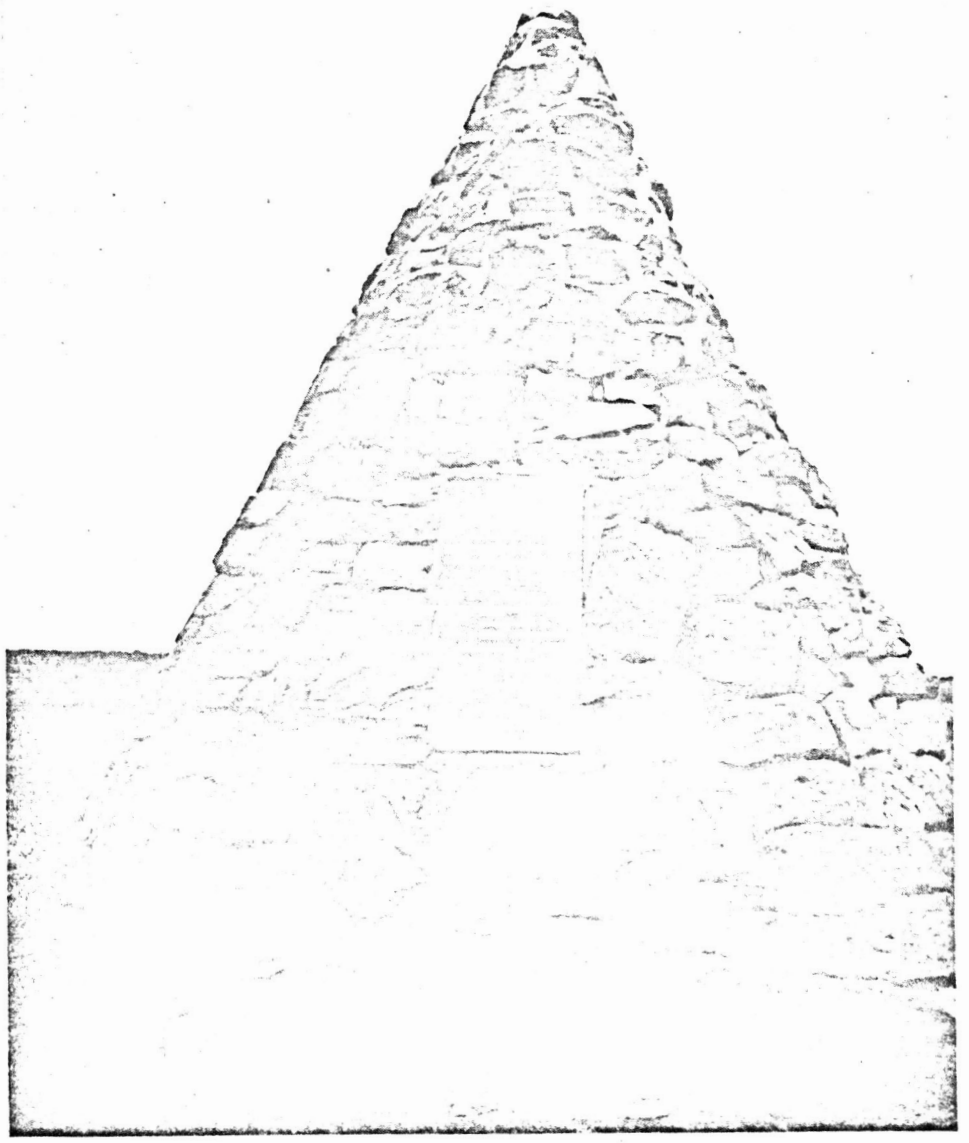
18 "Answers for John Loudon McAdam...," C. S. P., CCXX, no. 20.

Accordingly, with the consent of McAdam, Admiral Keith Stewart granted a thirty-eight year lease to the partners of the Muirkirk Iron Company.[19] The British Tar Company formally relinquished its lease, but only in order that the arrangement with the iron company might be consummated. The iron company agreed to a stipulated annual rent, contracting "to work regularly, and in a proper workmanlike manner, the whole iron-stone, lime-stone, and coals." But once again the iron company secured a convenient loophole, for the contract of lease from the Admiral specifically provided, "that if any of the mines or metals hereby let shall run out, or become unworkable,... it shall be in the power of the Muirkirk Iron Company to abandon such metal, on giving twelve months previous notice to Admiral Keith Stewart...." And again, if the iron company should decide to cease operations and withdraw from the manufacture of iron, the contract should be declared invalid! Disputes arising under the terms of the contract were to be referred to an arbiter or oversman.

The Minute Book of the Muirkirk Iron Company gives an

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19 Appendix I, "Petition of John Loudon McAdam and John Bushby, Esq., the Acting Trustees appointed by the late Admiral Keith Stewart of Glasserton," 1 June 1802, C. S. P., CCXX, no. 20. The three partners named were William Robertson, merchant in Glasgow; John Gillies, manager of the Dalnotter Iron Works; and John Grieve, manager of the works of the Muirkirk Iron Company.



MEMORIAL CAIRN ERECTED AT MUIRKIRK IN 1931

Photograph by T. Johnstone, Motherwell

interesting commentary on the private attitudes of the company during these negotiations.[20] The partners on 15 November 1788 resolved that they would not reply to the offer of the tar company until "Mr. Strang" gave his opinion and consent. On 8 April 1789 Captain Cochrane having failed to meet with them as scheduled, the partners resolved that it would be unnecessary to be dependent on Kaimes' coal, and further

> that we should have no further correspondence about it /the proposed contract with the British Tar Company/ unless the British Tar Company shall offer to communicate their Lease to us in the event of our furnishing their kilns with coal gratis: after the manner of the furnishings at Coalbrookdale.

This secret resolution, followed undoubtedly by open sparring between the two companies, was rewarded by McAdam's proposals of 4 July, surrendering the applicable portion of the British Tar Company's ninety-nine-year lease with Stewart, and accepting the reservation of the iron company.

The Muirkirk Iron Company thereupon took over the Kaimes' colliery, mined the coal, delivering it to the British Tar Company as contracted, and receiving coke in return with which they manufactured pig-iron. Throughout 1789 this arrangement was successfully and profitably (insofar as is known) adhered to. McAdam later claimed that each party was well-satisfied, and

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20 This volume, covering the years 1787-1800, is in the possession of Bairds and Dalmellington, Ltd., Glasgow.

that during the period from June to 21 December 1789, the tar company furnished the iron company with between four and five thousand tons of coke.[21] There is no means by which McAdam's statement about the quantity of coal furnished may be verified; but of the claim that both parties were well-satisfied with the arrangements, there can be no doubt, for at the end of the year 1789, the iron company asked for a twenty-two-year extension of their sixteen-year contract, which was granted. First, their contract of 4 July 1789 (with the British Tar Company) was extended for twenty-two years, being modified only by placing a limit to the number of kilns the iron company need supply (thirty-four), and providing that in the event of the Kaimes' coal becoming exhausted or unworkable, or the tar company's abandoning its works, all obligations on the Muirkirk Iron Company would cease. A further obligation was stipulated, that the coal must be coked in a manner "reasonably satisfactory" to the Muirkirk Iron Company -- another of the loosely-worded clauses, causing consternation very shortly -- which failing, the iron company would be entitled to assume control of the operation of the kilns, and to employ persons to make coke (not tar) in a manner suitable to themselves, at the expense of the tar company!

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21 "Answers for John Loudon McAdam...," 14 October 1802, C. S. P., CCXX, no. 20.

Second, a contract dated 6 January 1790, was concluded between Admiral Keith Stewart, with the consent of McAdam, and the Muirkirk Iron Company, confirming the earlier agreement.

Early in 1790 McAdam purchased from the Earl of Dundonald and the British Tar Company the rights to the patent, together with the works at Muirkirk. McAdam later phrased his motives and reasonings in these words: "...[I] had no hesitation in laying out [my] whole fortune in purchasing from Lord Dundonald the exclusive privilege of manufacturing tar from coal, granted by the crown's patent."[22] Counting on the good faith of the iron company, and on his own ability to manage wisely the enterprise, and, noting the very successful six-months' trial-period in 1789, he raised £14,000 sterling to finance the purchase, and hoped he would realize his investment, both principal and interest, plus a reasonable profit, by the time the patent expired in 1806.

Several loans were necessary during the early years of his venture. With Adam Steuart, his brother-in-law, he borrowed £1,000 sterling from Admiral Stewart, for unknown purposes (18 November 1789).[23] A much larger loan was negotiated on

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22 Ibid.

23 "Bond of Corroboration Disposition and Assignation by John Loudon McAdam to the factors and commissioners for the trustees of Admiral Keith Stewart," 28 May 1799, Register of Deeds, MacKenzie Office, CCLXV, pp. 1004-1024.

2 February 1790, a bond and disposition in security for £6,000 sterling being granted to Admiral Stewart, Sauchrie being the security subjects, presumably to finance the purchase of the Dundonald patent and property rights.[24] On the same day at Edinburgh, McAdam entered into a complicated contract with the Admiral,[25] by the terms of which he succeeded to the rights of the British Tar Company in the thirty-eight-year lease of Kaimes' coal lands (with the right to a sixty-one-year renewal on the same terms), for which he was to remit £250 sterling annual rent less the £50 sterling in lordship payable by the iron company according to the terms of their lease. This complex deed was necessary, because the works of the tar company were located on the property of Admiral Stewart; they had relinquished to the Muirkirk Iron Company only that part of the lease which pertained to mining operations. McAdam, therefore, still held in abeyance the lease to all the "30 to 40 acres" originally acquired by Dundonald; his annual rent to be paid to Admiral Stewart amounted to the net figure of £200 for the first

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24 Bond and Disposition by McAdam, General Register of Seisins, DXXVII, fol. 39.

25 "Extract Contract between The Honl Keith Stewart and John Loudon McAdam," dated 2 February 1790, and registered 4 May 1792. This document is one of the Muirkirk Iron Company MSS. (Bairds and Dalmellington, Glasgow).

seventeen years of the lease, and for the remaining twenty-one years, £50 annually. Furthermore, McAdam and Stewart decided to continue the agreement of 8 January 1788, by which Admiral Stewart promised to advance the tar company £2,000 sterling when the company had expended £4,000 sterling in additions and improvements to the tar works, in consideration for which, at the end of twenty-one years (Martinmas 1806), the tar works would become the joint property of McAdam and the Admiral, to be carried on jointly, or disposed of, as mutually agreed.[26]

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Disagreements began almost immediately between the British Tar Company and the Muirkirk Iron Company. During the early months of the contract, the latter company began to default in deliveries of coal to the tar kilns for coking. McAdam blamed the iron company, alleging that they very injudiciously worked the coal, and had not planned reasonably in advance for new fittings. A short eight months after the contract was implemented he wrote "in very conciliatory terms" to James McDowell, one of the Muirkirk partners, asking him to investigate the delays in

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26 "Extract Contract between the Honl Keith Stewart and John Loudon McAdam," 2 February 1790, and registered 4 May 1792, Muirkirk Iron Company MSS.

supplying coal to the kilns. Declaring that he had always hoped to "dwell peaceably" with the Muirkirk company, he said he would willingly acquiesce to the offer of any indemnity "whether much or little," making no further demands, if McDowell would investigate the matter and determine what was due to him. All he asked was that future deliveries conform to the contractual obligation.[27] Already, McAdam was beginning to regret his undue dependence upon the mining abilities of the iron company, for his letter was not even answered.

According to the minutes of the meetings of the partners in the Muirkirk Iron Company, they were not faring very well at this juncture, especially in regard to coal mining operations. On 27 August 1790 -- three days prior to McAdam's letter to McDowell -- John Salmond, company overseer, indicated that in his opinion there remained readily available only a two-year supply of coal for the tar kilns, unless steps were speedily taken to refit the mines for more extensive operations. The partners resolved on the occasion (McAdam was present as a guest),

> ...thinking it a matter of much consequence to their works, as well as to the Tar Company to have their coalliery [sic] put into the best order to supply the Tar Kilns with a sufficient quantity of coals for the remainder of their Tact, and not wishing to rely on their own or their servants judgements [sic]

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27 "Answers for John Loudon McAdam...," 14 October 1802, loc. cit.

in fitting up this work, thought it prudent to call to their assistance George Houstoun Esqr of Johnston as a Gentleman of great knowledge in the coal line, who has been so obliging as come here and examined the situation of the works... and approves of the plan proposed....[28]

And the minute concludes, that McAdam being present, the partners signified their resolution to him "judging it expedient to go hand in hand wt. all parties concerned before we begin to such an expensive Operation to prevent Reflections in all time coming."

Difficulties were encountered by the iron company throughout 1790 and 1791. Matters were not bettered in December 1791, when McAdam notified the Muirkirk partners that the ten new kilns, permitted by the contract of 1789 (raising the total number of kilns to thirty-four), were ready for operation, and that additional coal would be needed. The Muirkirk Iron Company thereupon decided, that in order to meet this new obligation, it would be necessary to cart coal from a nearby mine (Catchyburn). The Minute Book of the company indicates the partners were seeking to fulfill their obligations to McAdam. In June 1791 they had leased additional coal fields, specifying that the coal must be fit for coking.[29] In mid-March 1792 the partners made a

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28 Minute Book of the Muirkirk Iron Company, 1787-1800, Muirkirk Iron Company MSS.

29 "Tack between James White of Newmains for the Minerals of East Glenbuck and New Mains and Part of Glenbuck Bog, etc.,

personal tour of inspection of the mines. No further minutes were recorded until 29 July 1793, when at a meeting the mine overseer (John Salmond) delivered a very pessimistic report, stating that the old workings were so wretchedly poor that only ten men could be employed in mining operations. But he still had hope, he said, that they would be able to continue the workings and meet their obligations. In November 1793 the iron company borrowed £819.19, "to enable the partners to carry on the works," and in November 1796 another £2,000. On 11 December 1793, in a conciliatory frame of mind, the partners "Resolved, that it is the opinion of this meeting that Mr. Gordon should enter into the submission with Mr. McAdam and get it finished as soon as possible."

It thus appears that both parties were experiencing difficult days. McAdam later claimed that by late 1792 he was in dangerous straits because of the failure of the Muirkirk Iron Company to supply sufficient coal to keep the tar kilns fully operative.[30] He proposed that an arbiter be appointed. James Dunlop of Garnkirk was selected. McAdam claimed that non-implementation of contract by the iron company had cost him no

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to Muirkirk Iron Company," effective from Martinmas 1791, Muirkirk Iron Company MSS.

30 "Answers for John Loudon McAdam...," 14 October 1802, loc. cit.

less than £1550 sterling; the Muirkirk Iron Company countered that McAdam's kilns were not producing coke to their satisfaction, and must be turned over to their management. McAdam answered that the initial sale of coke to them seemed to meet their requirements admirably, as did the 4,000-plus tons supplied during the period June to December 1789. His coking process since then had not been altered. But, to remove every conceivable obstacle to a final and happy outcome, he offered to deliver the kilns to the iron company's temporary custody, to prove that his methods were best suited to the production of coke, as well as tar. In this manner, throughout the decade there raged this bitter controversy, which only ended in 1803, after more than twelve years of debate and litigation. McAdam, always a man of impetuous action, often vain and imperious when under attack, must have sorely chafed at the interminable processes of legal procedure.

Dunlop became a bankrupt before his decision was handed down, and it was necessary that a new submission be arranged (1794), the arbiters selected being "Houston of Johnston" and William Dixon, coalmaster at Govan. On 13 February 1794 these two men found in favor of McAdam, declaring that if the Muirkirk Iron Company had expeditiously opened the new fittings at the colliery, they could have supplied the tar kilns as per

their contract: McAdam was awarded damages.

On 22 December 1794 the arbiters (who still were vested with authority) appointed Thomas Edington and John Grieve to take over twenty of the tar kilns to determine the proper time for coking. This was the critical point of disagreement, for the iron company complained that McAdam did not allow enough time to lapse "after the damping of the kilns for the purpose of throwing off the Sulphur," whereas McAdam was of the opinion that no advantage could arise to the iron company by any alteration in this regard.[31] Edington and Grieve, however, for an unknown reason, declined to report. McAdam immediately (12 January 1795) asked that Wright, the Muirkirk Iron Company's engineer, supervise further experiments, and promised to abide by his findings, "if not extremely unreasonable."[32] But Wright declined the office, and the arbiters on 9 February 1795 ordered McAdam to turn over a number of kilns (not to exceed twenty, at the option of the iron company), in order to permit additional experimentation. Tests were made, and on 6 November 1795 the tar works were returned to McAdam, the arbiters

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31 "Extract -- Mutual Agreement and Discharge Between The Muirkirk Iron Company and John Loudon McAdam, 17 March 1803," Muirkirk Iron Company MSS.

32 "Answers for John Loudon McAdam...," 14 October 1802, loc. cit.

decreeing that "there is yet no evidence before them, that the tar kilns are capable of making better coak [sic] than that already produced by Mr. M'Adam," and they directed the iron company to furnish McAdam with coals of as good a quality as those they used while making their own experiments.

This second victory proved to be as indecisive and as hollow as the first. The Muirkirk Iron Company (8 December 1795) refused McAdam's request for comparative experiments. The arbiters, Edington and Grieve, while agreeing that McAdam be awarded damages, disagreed as to the amount, and referred the matter to Robert Blair, the Solicitor-General for Scotland. Under Blair, as oversman, the negotiations continued until the submission expired in 1801. His conclusions -- never enforced -- were that the Muirkirk Iron Company had defaulted in coal deliveries, and owed damages to McAdam; and that the coke made by McAdam's kilns was not prepared to the reasonable satisfaction of the iron company. The claims offset each other -- were "mutually held to compensate and extinguish each other."[33]

These dilatory submissions, coupled with irregular deliveries of coal by the iron company, brought McAdam to financial

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33 "Proposed Decreet Arbitral by Mr. Blair," Appendix III to the "Petition of the Muirkirk Iron Company," 29 June 1802, loc. cit.

ruin. Although not losing the kilns and the lease to the Kaimes' coal, he was forced to sell his estate and leave for England long before the expiration of the submission to the Solicitor-General. Admiral Keith Stewart had died on 5 May 1795, and by the terms of his deed of settlement,[34] nine trustees were named to administer his large estate. Only two accepted office, however. These were McAdam and John Bushby, Sheriff Clerk of Dumfries. From this it appears that McAdam was more than a mere business acquaintance of Admiral Stewart, although nothing is known of their friendship. After taking an inventory of the Admiral's effects, the two trustees administered the estate jointly until the death of Bushby in 1802, after which date McAdam acted as sole trustee until the heir, James Alexander Stewart, attained his majority (1811). McAdam was by this arrangement placed in a delicate situation, for he was at once both trustee of this estate and one of the major debtors to it.

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On 10 November 1798, a few days after his arrival in Falmouth, McAdam signed a long "Bond of Corroboration,

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34 Register of Deeds, MacKenzie Office, CCLVII, fol. 1266.

Disposition, and Assignation," reviewing all the contracts and leases he had made with Admiral Keith Stewart since 1789.[35] It was agreed that McAdam owed the estate a grand total of £14,190 sterling. This figure was the sum of the £6,000 loan of 1791; £1,000 per the bond granted by Adam Stewart and McAdam in 1791; a bill for £150 granted by McAdam in 1790; a bond of assignation granted by McAdam in the amount of £2,550 on 27 March 1793; and the unpaid rent due to Admiral Stewart at the net rate of £200 per annum since 1790. With interest, these debts totalled £14,190 sterling.

Shortly thereafter (21 January 1799) McAdam granted a commission to Alexander Young, W. S., his Edinburgh agent, to sell Sauchrie, and to pay the proceeds of the sale to the estate of Admiral Stewart.[36]

Bad matters became worse in November 1799, when, at the instance of the Earl of Galloway, Alexander Gordon of Campbelltown, and Thomas Gordon of Balomaghie, the infamous letters of inhibition were executed against McAdam.[37] In accordance with time-honored custom, the master-at-arms "passed to the mercat

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35 Recorded 28 May 1799 in the Register of Deeds, MacKenzie Office, CCLXV, fol. 1004-1024.

36 Register of Deeds, MacKenzie Office, CCLXV, pp. 125-128.

37 General Register of Inhibitions, CCXIV, p. 229f.

cross of Edinburgh and to the Pier and Sands of Leith," proclaiming the interdict. The same procedure was followed at Ayr on 7 December of the same year. By the terms of these "Letters," McAdam was prevented from disposing of any of his lands or other properties in Scotland to the detriment of his creditors, and all persons were warned not to loan him money with his property as security. McAdam was in an exceedingly embarrassing and ignominious position!

Young exposed Sauchrie at a public roup on 31 January 1800. The sale was made to John Balfour, Junior, of "Collinton Mill near Edinburgh," at the rather handsome figure of £8,050.[38] This figure, less the expenses of the roup and Young's commission, went to the Stewart estate. McAdam sadly affixed his final signature to the disposition at Falmouth, 28 April 1800, reducing the £14,000 debt to the more manageable figure of £6,000. A careful search of the pertinent records fails to reveal the date of the formal withdrawal of the onerous letters of inhibition.[39] By a renunciation registered 18 December 1800, Balfour's title to Sauchrie was cleared by both McAdam and the Earl of Galloway, who, at the

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38 Register of Deeds, MacKenzie Office, CCLXXXV, fol. 128.

39 Minute Books of the Court of Session (Signet Library, Edinburgh) and General Register of Inhibitions (Scottish Record Office).

same time, agreed to discharge McAdam from the inhibition. The balance of McAdam's debt, however, was specifically mentioned as a due and valid debt.[40]

-5-

McAdam's departure from Scotland did not by any means denote his final withdrawal either from the management of the British Tar Company or from the acrimonious dispute in which that company had long been engaged. Sauchrie was gone forever, but so was the major portion of the crushing debt of £14,000.

In 1799 McAdam had proposed that the contract of December 1789, which had resulted in the controversy, should hinc inde be abandoned; but the iron company refused, preferring to continue the contract but to seek the abrogation of those provisions advantageous to McAdam, while retaining the use of the minerals and the indispensable Garpel Water.

McAdam traveled to Ayrshire in June 1801 to seek a final solution by the method of direct approach, but was unsuccessful. During his visit the submission to the Solicitor-General expired. The Muirkirk Iron Company threatened to abandon their own works, as well as the coal pits, removing the "fire engine."

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40 General Register of Seisins, DCXXVII, fol. 53.

McAdam was granted an interdict by the court, while the iron company sought a legal declarator by the same court that the Kaimes' coal was unworkable. This would have meant the company was prepared to void their contract with the tar company. McAdam told the court that his losses had reached the alarming figure of £40 per week (by 7 June 1801), an unhappy culmination of ten years of partial default by the iron company; and he petitioned the sheriff for possession of the Kaimes' coal. The sheriff commissioned Mungo Smith of Drongan, an experienced coalmaster, to inspect the pits and report on the manner of mining as practiced by the iron company, as well as the prospects of future mining operations. On 29 January 1802 Smith reported that the coals were neither exhausted nor unworkable -- a clear-cut corroboration of McAdam's allegations -- whereupon the sheriff ordered the iron company (which in 1795 had been given possession of McAdam's tar kilns!) to suspend operations and transfer active management of the colliery to McAdam.

This proved to be the climax to the entire, complicated litigation. Four actions were pending simultaneously before the Court of Session in Edinburgh:

(1) The paction of suspension (to prevent the Muirkirk Iron Company from ceasing operations) -- brought by McAdam.
(2) An action for damages (McAdam claimed £5,000).

(3) The petition (by McAdam) to the sheriff for possession of Kaimes' colliery.

(4) The action of suspension and interdict (the Muirkirk Iron Company, as pursuer, sought to have its contract of 1789 with the British Tar Company invalidated).

On 11 March 1801 the court pronounced an interlocutor, confirming the action of the sheriff in giving McAdam possession of the colliery, and ordered the iron company to pay McAdam three shillings and one penny for each ton of coal mined. John Grieve, an Edinburgh engineer, and William Dixon, manager of Govan coal works, were commissioned by the court to inspect the workings, and to report whether the coal was workable in its present state. Grieve and Dixon reported on 20 March 1802, inconclusively conceding that part of the area was "much troubled," and could not economically be mined; another area was worked out; but with new and expensive machinery, they concluded, additional coal could be mined.[41]

On 11 April McAdam took physical possession of the Kaimes' colliery. Three weeks later, James Gordon, Junior, a Muirkirk Iron Company partner, wrote to McAdam asking permission to send John Fergusson, his coal manager, to make occasional inspections of the operations. McAdam agreed, directing his manager (James Hair) to accompany Fergusson. On 7 May the two

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41 Appendix IV to the "Petition of John Loudon McAdam...," 1 June 1802, loc. cit.

managers made a tour of inspection of eleven "rooms," and in all but one found "a clean, fair-lying coal." Three days later, however, Gordon wrote that Fergusson had changed his mind, and now considered the coal to be inferior, and that he noted that the tar company was working the tar kilns too hurriedly -- "in the same hurried manner formerly practiced when we delivered you coal!" Forty-eight weekly charges of coal, he averred, does not make good coke. McAdam angrily replied with the demand that Fergusson be sent back on 11 May with witnesses to settle the facts of coking. But Fergusson could not come, answered Gordon, so soon as that. Other bitter letters followed, neither party retreating an inch.[42]

In the meantime, McAdam went vigorously about the business of mining the Kaimes' coal. He re-equipped the colliery (the iron company had been permitted to dismantle much of the machinery and equipment); cleared out rubbish; cut through "dykes;" opened roads; and within a few days was raising enough coal to supply three-quarters of the kilns with coal. He estimated that the workable field comprised twenty-five acres at a depth of only sixteen fathoms; and granted wise management, McAdam told the court, this coal field could easily supply the

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42 This account is based on the various documents found in C. S. P., CCXX, no. 20.

tar kilns with sufficient coal for many years to come.[43]

Further complications arose when McAdam and Bushby, on behalf of the Stewart estate, petitioned the court to declare the lease granted by the late Admiral Keith Stewart to the Muirkirk Iron Company (1790) to be valid, in order to protect the interests of the said estate.[44] The proceedings of the previous decade were reviewed, from the viewpoint of the Stewart estate and the British Tar Company, and the conclusion was drawn that coal was available and workable. The Muirkirk Iron Company, demanded the petitioners, must be ordered to proceed with the coal mining operations as contracted in 1789 and 1790.

To this the Muirkirk Iron Company submitted its own petition to the court, complaining at great length that it had "an extensive but unprofitable coal-mine lease" in Ayrshire, and wished to take advantage of a breach to abrogate the same. They sought a final settlement. The thirty-four kilns belonging to McAdam, if supplied coal at the rate of one charge per kiln per week, would consume 136 tons per week, or 7,072 tons

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43 "Petition of John Loudon McAdam and John Bushby, Esqrs., the acting Trustees appointed by the late Admiral Keith Stewart of Glasserton," 1 June 1802, C. S. P., CCXX, no. 20.

44 Ibid.

per annum -- a staggering total of 268,736 tons for the period of the thirty-eight-year contract. Kaimes could never produce this volume. Already, they argued, they had lost between five and six thousand pounds from mining operations and their contract with the British Tar Company. Slower coking by McAdam would produce better coke, one charge per week being ideal, instead of forty-eight charges for the thirty-four kilns each week.[45] Moreover, claimed the iron company, McAdam made a clear (net) profit of fifteen shillings and sixpence per kiln -- £15,110 since 1789 on 19,500 kilns of coal furnished to him; the iron company, on the other hand, had sustained losses amounting to fifteen shillings sevenpence halfpenny per kiln, totaling £15,234 in the last thirteen years, plus the loss of five to six thousand pounds previously mentioned.[46]

Finally, on 10 July 1802, judgment was pronounced by the court. The Muirkirk Iron Company was declared liable to McAdam for three shillings and onepence per ton for all coals he had delivered prior to 2 July, this being 1,507 tons; subsequent to 2 July, the iron company must pay him five shillings;

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45 This works out to 1.4118 per kiln per week. Regardless of the merits of slower coking, thirty-four charges of coal per week represented greatly reduced mining operations for the iron company.

46 "Petition of the Muirkirk Iron Company," 29 June 1802, C. S. P., CCXX, no. 20.

and another inspection (the sixth since 1793) was ordered.[47]

McAdam's cause was formally set forth on 14 October 1802, in an "Answer for John Loudon McAdam, Proprietor of the British Tar Company's works at Muirkirk; to the Petition of the Muirkirk Iron Company."[48] In detail his agent, Alexander Young, W. S., narrated the course of the prolonged dispute from the time of the establishment of the respective companies. Like its counterpart (the petition of the iron company three months previous), McAdam's petition had a definite "point of view," although printing as appendixes numerous verbatim copies of the reports and letters in question. McAdam's answer concluded that seven shillings per ton for coal mined at the "unworkable" Kaimes' colliery would be a more reasonable price, and cited prevalent charges at Glenbuck and other pits; that it could not be worked for less; that for many years to come the Muirkirk Iron Company could produce at Kaimes excellent "great-coal" at seven shillings per ton, "chows" at half a crown per ton, and "refuse coal" at five shillings and threepence. Therefore, he concluded, is not Kaimes' coal workable? The answer, he affirmed, is the key to the entire controversy

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47 "Interim Decree and Declarator," Minute Book of the Court of Session, 1802.

48 Ibid.

between the parties.

A seventh (and final) inspection was then ordered by the court, with five experts appointed to report their findings on oath. Separate answers were lodged, and at a meeting of the inspectors at Muirkirk with McAdam and representatives of the Muirkirk Iron Company, a definitive agreement was at last reached on 21, 23, and 24 February 1803. Thirteen years had elapsed since the initial "unpleasantness" -- the failure of the Muirkirk Iron Company to deliver sufficient coal to the kilns in 1790. In that interim McAdam had been forced to leave Scotland for a fresh business career; Sauchrie had been forfeited to secure release from the letters of inhibition; and thirteen years of general business prosperity in Great Britain had been largely lost. The "Mutual Agreement and Discharge," however, between the Muirkirk Iron Company and McAdam brought the affair to a friendly and agreeable conclusion.[49] Representing the iron company were three of the partners: James Gordon and John Robertson, merchants in Glasgow, and William MacDowall, son and factor of James MacDowall, also a Glasgow merchant.

This "Mutual Discharge" tiresomely rehearses the story of

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49 A certified copy of this document is among the Muirkirk Iron Company MSS.

the dispute and its origins, fairly and factually dealing with the many actions and reports. It was declared that the whole of the legal processes pending between the litigants should be dropped, and the contract of 6 January 1790 affirmed with suitable amendments to clarify the controversial and ambiguous clauses. The Muirkirk Iron Company agreed to pay to McAdam the sum of £750 sterling as compensation for his losses from November 1801 to April 1802.[50] McAdam was required to return the Kaimes' colliery to the Muirkirk Iron Company, which was obligated to pay him £1,956 sterling: this represented the balance of accounts due him since he entered into possession of the colliery twelve months before. Therefore, stated the parties, we "have mutually exonered [sic] and discharged as both parties do hereby...." A compromise was reached on the problem of the length of time necessary to coke the coals: the iron company agreed to furnish McAdam with forty-eight charges of coal (not to exceed three and three-quarters tons of twenty-one hundred pounds) per week for his thirty-four kilns. If, however, the Muirkirk Iron Company so desired, McAdam was to be required to erect two additional kilns during the summer of 1803, and must coke the forty-eight charges of

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50 Why this particular period of six months was chosen is not known.

coal in thirty-six kilns, thus increasing the coking time for all the coals. And later, if requested by the iron company prior to 5 January 1804, he must erect twelve more kilns, and allow one charge per week per kiln for the forty-eight tar kilns. By the erection of these structures, McAdam would be put to heavy expense; therefore, by way of compensation for this burden, the iron company agreed that if it failed to deliver sufficient coal to keep the kilns going to capacity, it would pay McAdam fifteen shillings and sixpence for every charge of coal they failed to deliver on schedule.

The narrative of the protracted struggle between the Muirkirk Iron Company and the British Tar Company is long and often dreary. It might be called a "Thirteen Years' War," as bitter as the "Thirty Years' War," and as debilitating. Neither company gained one single advantage because it had fought, and the outcome was a truce, a "negotiated peace." McAdam proved, to be sure, that there was coal at Kaimes, and that it could be profitably mined. This was advantageous to him for he held the lease. But the controversy was costly in legal fees alone.

This struggle was a strange one. Two pioneering

industrial firms, one the very first to be formed to produce coal tar and its derivatives on a commercially-profitable scale, dissipated much of their energies in a fatuous quarrel about a coal-mining and -supply contract, and the later dispute, equally stupid, about the proper mode of coking coal. Both issues should have quickly been peacefully arbitrated.

Perhaps, if McAdam could have devoted his abundant energy and spirit to the conversion of the Royal Navy to the use of his products during the decade of the nineties, his fortune would have been made! He later was to prove successful in persuading a kingdom and a parliament to follow his schemes for roadmaking and turnpike administration, and that same parliament to grant him a handsome munificence. But had he been eminently successful in Ayrshire, possibly he would never have emigrated to England, nor, in all probability, have so successfully terminated his strange hobby of the science of all that pertains to roads.

A new McAdam emerges from the foregoing narrative. Dundonald, and not McAdam, was the inventor of the earliest patented process of extracting tar from coal in a commercially-profitable manner. But McAdam, who early joined the enterprise, proved to be the guiding hand for practical production, and eight years after the company was founded, he became its

sole proprietor. He was, therefore, one of the pioneer industrialists of Great Britain during the early stages of the Industrial Revolution. And perhaps he may be considered one of the very earliest pioneers in the field of chemical manufacture, a business which is today one of the greatest in the kingdom, and perhaps the most productive of human comfort in the twentieth century.

McAdam continued his proprietorship of the British Tar Company for a quarter of a century after 1803.[51] He had fought almost alone against the combined persistence of the several partners in the Muirkirk Iron Company, but had not been "forced to the wall" in the agreement of 1803. This dominant trait, fortitude combined with a tenacity often amounting to obstinacy, is readily apparent throughout his life. He left Ayrshire to begin an entirely new life when he was forty-two. His fight with the Muirkirk Iron Company was not completed until he was forty-seven. And the greatest battles of his life were fought after he was sixty. Age did not

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51 Later comments will deal briefly with McAdam's personal relationships with the Muirkirk Iron Company, and with James Alexander Stewart, heir to Admiral Keith Stewart. Unfortunately, the papers of the British Tar Company have never been found, but it is presumed that McAdam continued his ownership of the firm until its dissolution in 1828 or 1829.

seem to weaken or mellow the man. Perhaps, if it had, he would never have so successfully faced the mounting opposition that confronted him after 1815. He was still battling as he passed out of this life at the age of eighty, and was actually discharged (after a controversy) from his last position only thirty-five days before his decease! McAdam enjoyed a fight, for he invariably was convinced of his own integrity and sound judgment, and equally certain of the corruption and bad judgment of his adversaries. He viewed every battle a crusade. Perhaps that is why John Loudon McAdam, a man of ordinary talents and with hardly a claim to brilliance, catapulted to fame in four short years, from 1815 to 1819, leaving his name a symbol for progress and efficiency in the era of the Industrial Revolution.

CHAPTER VI

PRIZE MASTER AND MERCHANT

For the third time in his forty-two years, John Loudon McAdam in 1798 was forced to turn his back on home and friends, and seek a fresh start in a new country. In some respects the third undertaking was more of an adventure than the first two, although no turbulent ocean voyage was required. As a boy of fourteen, he had been torn away from mother and sisters, and sent across the broad Atlantic to the care of a strange uncle whom he had never seen. As a prosperous young New York merchant of twenty-six, with a wife and two infant children, he had been compelled to return to his native heath, a repatriated emigrant. And now, having entered middle age, with his wife and five small children, he was constrained by the force of financial duress to take leave of the Scotland that had received him at birth and again when the victim of a Lost Cause.

It was as if McAdam wished to put as many miles as possible between his old home and the new, for when, at Whitsunday 1798 he began the long journey southward, his ultimate distination was Cornwall, the southwest extremity of the whole island. A three-hundred mile trek from Ayrshire to Cornwall in 1798 was almost as forbidding as a stormy Atlantic crossing -- and quite

as rough a journey! There was not available even a stagecoach service for much of the way, and it was 4 June before the large family, laden with all its portable possessions, arrived in Bristol. Mrs. McAdam was expecting another child, so the family settled in a house on Somerset Street, Kingsdown, in the city of Bristol, where on 29 September there was born a fourth son.[1] This child was christened John Loudon McAdam, Jr. Upon the mother's having regained strength requisite for the continuation of the journey, the family -- now increased to eight -- removed from Bristol on 2 November. They arrived at the tiny hamlet of Flushing, across an arm of the bay from Falmouth, on 7 November, where they leased a house for three years from a man named Braithwait. And, concludes the Family Bible, they took possession of the accommodation on Wednesday, 21 November.

In June the same year William, who was the eldest son (age eighteen), married Jane Pickard, daughter of a captain in the 13th Light Dragoons. Within eighteen years they had six children, of whom the eldest (William) was born in 1803.[2] On

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1 Earlier sons were William (b. 1781), James (1784-1785), and James Nicoll (b. 1786). Most of the foregoing narrative is based on entries in the McAdam Family Bible, now in the possession of Mrs. K. L. Scott, Hest Bank, Lancashire.

2 Their other children were Selina (1805), Christopher (1807), George (1810), Susan (1815), and Jane (1817) -- Sir Bernard and Ashworth P. Burke, A Genealogical and Heraldric History of the Landed Gentry of Great Britain (London, 11th ed., 1906), p. 1070.

27 May 1801 Ann, the eldest child of John Loudon McAdam, married Captain James Sanders, R. N., in the Parish Church of Mylor, Flushing. Their children were John Loudon James (born 1803), Gloriana Margaretta (born 1823), and perhaps others.

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It cannot be said with certainty that McAdam left Sauchrie with definite plans to resume his old occupation of prizemaster at Falmouth. He may have traveled to Bristol, where, while his wife awaited her child, he explored the possibilities offered in the southwest for a likely business venture. He may well have hoped to erect a new tar works at Bristol or Falmouth, both thriving seaports, the former especially busy outfitting and supplying the numerous vessels needed in the Mediterranean, where Bonaparte's absurd Egyptian campaign was under way. Georgina Keith's version of his plans is interesting, if not altogether reliable:

> Through the interest of an Ayrshire gentleman in a public office my Father after being 16 years in Scotd [sic] got a very lucrative and confidential employment under Government. He went to England and enjoyed it 3 years. When the short peace of 1801 broke it up He settled in Bristol having had much intercourse with the Bristol merchants while employed by Government. He felt no tie to Ayrshire with the unpleasant state of affairs there....[3]

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3 Georgina Keith McAdam, "History of the McAdams of Waterhead...," 1854. A copy is in the Katherine L. Scott MSS.

McAdam's grandson, William, offers a different narrative, which is also speculative:

> In 1793 [sic] he was sent by Govt to South of England to superintend victualling the Navy at the different ports. It was then he came first on this duty to Bristol.... He afterwards lived at Falmouth. In 1803 [sic] the Peace of Amiens he lost the appointment and having 6 children he turned merchant....[4]

William's explanation, except for obviously incorrect dates, coincides with almost every known commentary on McAdam. Beginning apparently with the obituary notices in the Annual Register of 1837 and the Gentlemen's Magazine of the same year, this fallacy has been perpetuated by biographical dictionaries, encyclopedias, periodicals, and newspapers; by McAdam's descendant and sole biographer;[5] and even by the Dictionary of National Biography.[6] A careful search of the pertinent Admiralty and Treasury records indicates that there was no victualing officer stationed at Falmouth, and that at the nearest such office (Plymouth, about sixty-five miles distant) and at all other victualing offices in the southwest of England, there was employed no one bearing the name McAdam.[7] As far as is known,

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4 William McAdam to Charles McAdam, 30 October 1858. Mrs. Katherine L. Scott has a copy of this letter.

5 Roy Devereux, John Loudon McAdam (London, 1936), p. 46.

6 Vol. XII, p. 395.

7 The following Admiralty records were searched at the Public Record Office, London: Victualling Department Out Letters, 1683-1831, and In-Letters 1793-1849; Victualling

McAdam was not in Falmouth in any official connection with the Admiralty. Steel, who lists the "agent victuallers" for the period, cites no McAdam among them during the period in question.[8] Furthermore, McAdam was not connected with the Falmouth Packet Service, which was operated throughout the period in question for the Post Office by Benjamin Pender;[9] nor does his name appear in any capacity in the Civil Service Lists of 1798 to 1801.[10]

Department Accounts, etc., 1660-1831, and Registers, 1703-1857 (Pay Lists, Musters, etc.); Miscellaneous Bundles of Victualling Department Papers, 1798-1801; Pay Bills, Plymouth Victualling Office; Falmouth Letters to Royal Navy Headquarters; Victualling Board Minutes, CXLVI-CXLIX, 1798-1801; furthermore, no reference whatsoever to McAdam is made in the "Thirty-second Report from the Select Committee on Finance, Victualling Office," reported by Charles Abbot, Esq., 26 June 1798, pp. 508-566, Reports from Committees, House of Commons, XIII, 1798-1803.

8 Steel's Original and Correct List of the Royal Navy, Hired Armed Vessels, Gun-Boats,... (London, 1798, 1799, 1800, 1801).

9 Ibid.

10 The Royal Kalendar or Complete and Correct Annual Register for England, Scotland, Ireland, and America (London, 1798, 1799, 1800, 1801). This work contains lists of victualing agents, packet agents, navy agents, and others. Mr. Ashley Rowe, of Mount Hawke, Truro, Cornwall (letter to the author, 10 October 1950) states that the only Cornish newspaper of the period in question was the Cornwall Gazette, published weekly at Falmouth from March 1801 to October 1802; but its files no longer exist. Mr. H. C. Coleman, of High Street, Flushing, the author of a brief History of Flushing (1940) and a local antiquarian, in a letter to the author (9 October 1949) indicates he had never known of McAdam's residence in Flushing or Falmouth. The records of the Falmouth Harbour Board, he adds, do not extend back beyond "about 1850."

The Falmouth interim is rendered more mysterious by McAdam's equivocations before a Select Committee of the House of Commons on 28 May 1823. He categorically informed the Committee, that from 1798 until 1816 he had had no occupation worthy of the name, but spent his time traveling extensively, seeking to broaden his knowledge of the art of constructing, repairing, and managing roads. He omitted mention of his residence in Falmouth, and referred to his residence in Bristol as if immediately following his departure from Scotland. "I had my own private affairs," he said; "I had an estate of my own in Scotland [which, he might have added, he sold in 1800], and had some little business." When pressed for a more definite statement, he declared that he was at that time (1798-1815) engaged neither as a partner nor as an agent for any mercantile concern, but was "put to considerable activity" as a trustee for Lord Dundonald's creditors. He said he was under the necessity of purchasing the tar works, but added quickly, "I never managed them myself!" McAdam repeated a few moments later that he was a partner, but only "a sleeping partner a year or two [after 1798]," and that this business gave him "no occasion to travel, or to take the least trouble about it; not in the smallest degree."[11] It readily appears that McAdam's enthusiasm for a

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11 "Report of the Select Committee on Mr. M'Adam's Petition," Parliamentary Papers, 1823 (476), v. 53.

Parliamentary grant created a convenient (but fortunately temporary) case of amnesia. Or perhaps the lapse of nearly a quarter of a century had dimmed the recollection of those numerous and extended visits to Ayrshire when his affairs were most critical, throughout the period 1798 to 1803, and indeed for many years afterward.

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It seems highly probable that for the three years while he was at Flushing and Falmouth McAdam returned to the vocation of prizemaster. It has been noted that he found this occupation to be lucrative during the later years of the American War for Independence. Nothing could have been more reasonable than for a man tottering on the verge of financial ruin, as McAdam indeed was in the winter of 1797-1798, his Mother Country engaged in a mortal struggle with her perennial foe, to recall the period of youthful prosperity and to seek to re-enter the same field of endeavor. Perhaps he also reasoned his work at Falmouth would be of service to his King during a long war.

Only one set of records exists to indicate McAdam's employment during this period, but it establishes his occupation in Falmouth. Charles Hay was Captain of the Sloop Spy, built as the L'Espion in 1795, and engaged in 1799 in "channel-

convoy" duties.[12] Captain Hay's vessel was based on Plymouth when, in October 1800, it chanced upon the Vennveney, a Danish Indiaman bound from Batavia to Copenhagen. Captain Hay pounced upon the hapless Dane, seized her undamaged, and escorted her to Falmouth for condemnation by the High Court of Admiralty. British law permitted naval captains and shipowners, when properly licenced, to dispose of captured enemy vessels for their personal advantage. Captain Hay, therefore, lodged certified papers with the proper authority, describing the action and its consequences, and employed McAdam to act as his agent. Aboard the Vennveney he left a marine corporal with three privates, who were directed to guard the vessel, prevent smuggling, and take their further orders from McAdam. In December of the same year the Spy was paid off, and Captain Hay was obliged to forsake Falmouth for other duties, leaving McAdam in complete charge of his capture.[13]

Apparently all went well until March, when the Commanding Officer of the Chatham addressed an abrupt letter of protest to "J. L. MacAdams Esq, Flushing." He said,

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12 Steel's Original and Correct List of the Royal Navy... (London, 1800, 1801).

13 Captain Charles Hay to Evan Nepean, Secretary of the Admiralty, 2 January 1801 (Adm. 1/1924, 201, Public Record Office, London, hereinafter cited as P. R. O.).

I have been told you sent an Order on board of the Danish Indiaman, for the Marines under my command, and acting there by my Directions, to subject themselves to the Orders of the Prize Master, which is a matter so strange, that the Men themselves must have been at a loss to judge whence you derived your authority.

The Lords Commissioners of the Admiralty left it to me, how far their presence was necessary on board of that ship, and for substantial reasons I judged it absolutely so. When the order was given for detaining all Danish vessels, I further judged it necessary to take possession of her as such, should she not be proved Dutch property; which if it be decided to the contrary; she falls under the denomination of other detained vessels, and no Prize Master has any business on board; the Marines being there for that purpose, much less to assume authority over them [sic].14

This note was enclosed in a letter of explanation which Lieutenant Manderson said he felt constrained to write to the Secretary of the Admiralty. He claimed that Captain Hay had asked him to give assistance if it were deemed necessary; that the Danish officers, hoping to secure the removal of the guard, had complained of their conduct to the prizemaster (McAdam); that the corporal, although offered a bribe by the first mate, had attempted to stop smuggling operations; that the prizemaster had refused to permit a sentinel to fire on a boat smuggling goods from the Vennveney; and that he had finally been forced to direct the corporal to act independently of the orders of the prizemaster. After thus stating his case,

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14 Copy of a letter from Lieutenant J. Manderson, 6 March 1801, Admiralty-Secretary, In-Letters, Adm. 1/3010 (P. R. O.).

Manderson declared that "there has been an intention of insinuating to Captain Hay that in the taking precautions to prevent smuggling I have interfered with his claim...." He was therefore, he said, asking the Secretary for instructions.[15]

Captain Hay did not wait long to protest Manderson's "usurpation." On 22 March he wrote a bitter letter to the Secretary, Evan Nepean. He sided entirely with McAdam, and alleged that Manderson and his marines were interfering unreasonably with the legitimate authority of McAdam. The Vennveney was retained, he added, at his personal risk, and its forcible seizure by Manderson constituted a serious offense. Enclosing a copy of Manderson's "strange letter" to McAdam, he asked the Secretary to check this "violent and unprecedented conduct," and to restore the Vennveney to his agent.[16]

By 2 April the matter was still unsettled, and Captain Hay again addressed an urgent plea to the Secretary. Now, he complained, the marine has gone so far as to say that "the Prize Master appointed by my orders is to obey him." He asked Nepean to take immediate and summary action to end this "critical" situation.[17]

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15 Ibid., 13 March 1801.

16 Hay to Nepean, 22 March 1801, Admiralty-Secretary, In-Letters, Adm. 1/1924, 203 (P. R. O.).

17 Ibid., 2 April 1801, Adm. 1/1924, 202 (P. R. O.).

At this point the narrative ends, for no other letters pertaining to the incident are extant, and the Admiralty Board Minutes, both "Rough" and "Smooth," fail to record any consideration of the matter, which was undoubtedly adjudicated by Nepean.[18] No final judgment of the merits of the dispute, therefore, is possible today, and we are left uninformed of the final settlement. But these five letters definitely establish that McAdam was in Flushing and Falmouth as a prizemaster, and it is not improbable that during three years of energetic British naval warfare he carried on a brisk business, in spite of frequent calls to deal with pressing problems relating to his estate and tar business in the north.

The ill-conceived Peace of Amiens, which served only as an uncertain truce between Great Britain and France, was the direct cause of McAdam's return to Bristol, where his family had briefly rested in 1798 en route to Flushing. Preliminary articles of peace were signed 1 October 1801, but it was not until 27 March 1802 that the formal exchange of ratifications was made.[19] The terms of the peace -- received joyously by

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18 Admiralty Board Minutes, CXXVI, 1801, and Rough Minutes, CXLIV, January-June 1801 (P. R. O.).

19 It was on 25 March 1802 (two days prior to the Peace of Amiens) that McAdam was given temporary possession of the Kaimes' Colliery by court order.

France as signifying a great victory for Consul and Country, and in Great Britain with deep rumblings of discontent by Parliament and Populace -- embraced not only Great Britain and France, but Spain and the lesser powers as well.

Like most merchants in Britain, McAdam undoubtedly was rankled by the concessions made to Bonaparte to secure the termination of hostilities; and he may have forseen that Amiens would serve only as a brief respite in the long struggle. But still involved in the bitter Ayrshire controversy, and having no means of determining how long the truce with Bonaparte might endure, he wisely decided to change both his location and his occupation, to insure adequate provision for his large family. Consequently, in June 1802 the family moved to Bristol, where, according to a descendant, McAdam had made many business contacts during the preceding three years.[20]

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The home port of many of the Elizabethan Sea Dogs, a stronghold of Parliamentarianism during the Civil War, a center of early Quaker, Methodist, and Baptist nonconformity, and one of the busiest ports in the kingdom -- such was the interesting

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20 Georgina Keith McAdam, op. cit.

city of Bristol, which was the home of McAdam for a longer period than any other city. It was here that in 1816 he accepted the position that quickly made him a figure of national prominence. It was here that his younger children matured, and it was here that in 1825 he laid his wife in final rest.

Throughout his Bristol residence, McAdam lived in a station of upper middle-class gentility. Six addresses are recorded, which were uniformly located in fashionable districts, although by no means palatial.[21] Five of the six are still standing today, but with the changing fortunes of the times they have been converted to commercial uses.

Peculiarly, as in Falmouth McAdam's occupation during the first years of his Bristol residence (1801-1815) is not clearly set forth by him, nor is the evidence abundant. Neither newspapers nor other contemporary records, nor surviving personal

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21 These addresses are cited in both the Family Bible and in the Bristol Directories of the period. From 1802 to 1807, he lived at 5 Park Street (the house has been demolished); 1807-1808, Berkeley Square; 1808-1809, Dowry Parade, Hotwells, one of an attractive block of residences, well back from a popular promenade in Bristol's fashionable watering-place of the era; 1809-1820, 32 Park Street, which at the time was once an exclusive residential avenue leading up the hill from College Green, near the center of the city; and 1820-1825 (?), 29 Berkeley Square. Most, if not all of these houses, were leased by McAdam, and it is doubtful if he bought any residential property in Bristol. It is not known why he moved so frequently; his average residence was four years per dwelling.

papers, record precisely his vocation other than the proprietorship of the British Tar Company. He declared before a Select Committee of the House of Commons in 1823 (as noted previously) that he had no business obligations while in Bristol prior to 1816, and this is probably true. His arch-enemy (Benjamin Wingrove), however, in 1824 mentioned in an aside that McAdam's business in Bristol was the manufacture of "paint and ivory-black."[22] The obituary of McAdam in the Dumfries and Galloway Courier recorded simply that prior to 1816 "he carried on an extensive business in Bristol...."[23] Neither of these commentators can be regarded as authoritative, and neither was seeking to make a point of the matter. They may well have been generalizing, or referring to McAdam's association with the British Tar Company in Ayrshire.

In all contemporary Bristol Directories, however, reference is made to "J. L. McAdam, Esq., Merchant," and the Directory of 1808-1815 notes also, "McAdam, James & Co., Manufacturers of Lampblack, Mineral Paints, Oils, etc. Near the

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22 James Paterson, "to Sir Thomas Baring, M. P. and late Chairman of the Select Committee of the House of Commons to Inquire into the Claims of Mr. McAdam," 30 November 1824. A copy of this printed letter, undated as to publication, is in Tracts, 8vo., IV, no. 6 (Library of the Institute of Civil Engineers, London).

23 7 December 1836.

Glasshouse, Limekiln Lane." In 1808 James McAdam was only twenty-three years of age, and most likely had been established and assisted in the business by his father. But again, nothing further is known of this company in Limekiln Lane nor of McAdam's business relations with his son James.[24] McAdam's early life in Bristol, therefore, remains largely a mystery.

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After moving to Bristol, McAdam was still busily occupied for many years with his Ayrshire affairs. In November 1804 he signed a discharge to the trustees of the late John Bushby, who had been co-trustee with him for the Stewart estate. Since the death of Bushby on 16 August 1802, McAdam had been the only accepting surviving trustee of the estate, and by this discharge he relieved the trustees of Bushby of all obligations and assumed complete responsibility for the administration of the estate. He fulfilled this function until 1811. In that year the Stewart heir, James Alexander, attained his majority, and in

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24 The histories of Bristol (of which there are very few) are weak in economic matters; none mentions this company or this industry. Mr. Bryan D. G. Little, who is currently preparing a definitive history of Bristol, has requested information about the McAdams, indicating the paucity of materials. He has elsewhere found no reference whatsoever to this enterprise.

November 1811 the final "Mutual Discharge" was signed.[25] This complicated document concerned not only McAdam's relationship to the estate as its sole trustee, but also the various contracts of the British Tar Company and the Muirkirk Iron Company, to which both McAdam and Admiral Keith Stewart had been signatories.

It was first agreed that the sum of £1,894 was due young Stewart by McAdam as trustee. Rents due the estate by the British Tar Company in accordance with the contract of 1789 had been settled with Bushby in 1802; but it was determined that McAdam owed £900 rent for the period from Whitsunday 1802 to Martinmas 1806, when the tar works at Muirkirk became the joint property of McAdam and the Stewart estate.[26] McAdam claimed and proved to the satisfaction of Stewart that his losses from July 1789 to February 1803, due to the failure of the Muirkirk Iron Company to deliver the stipulated quantities of coal to the tar kilns, amounted to £1,034.[27] Characteristically, McAdam clinched his bargain by calling attention to the fact that

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25 Register of Deeds, Durie Office, CCCL, pp. 633-641, 14 and 27 November, registered 17 December 1811 (Scottish Record Office, Edinburgh).

26 See above, p. 103.

27 McAdam contended the deficiency was 11,242 kilns, equal to the supply of all the kilns for five years and nine weeks, the rent for which period at £200 per annum totaled £1,034.

he had made no claim for his trouble in managing the estate. It was agreed, consequently, that the two figures would offset each other. Furthermore, since Admiral Stewart had died in 1795, McAdam was not obliged to enter into co-partnery with the Admiral's son. Young Stewart, for his part, was unwilling to enter into such a "speculation" with McAdam. They decided to obtain an evaluation of the works, and that McAdam should purchase Stewart's interest. They further agreed that all royalties payable by the Muirkirk Iron Company should be equally divided between them, after setting aside therefrom £50 for Stewart as the stipulated rent owed by the tar works. McAdam received this income, which varied from year to year, for the remainder of his life.[28]

Finally, the "Mutual Discharge" summarized the accounts from Martinmas 1806, when the tar kilns became joint property, to Martinmas 1810, and, after deducting Stewart's half of that

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28 This was in accordance with the original agreement with Admiral Stewart. McAdam's share of the royalty in the year ending at Martinmas 1806, was £216; Martinmas 1807, £111; Martinmas 1808, £51; Martinmas 1809, nothing at all, inasmuch as the total coal raised at 3d. per ton amounted only to £19, and Stewart demanded the alternative (£50 minimum royalty) which only amounted to the rent due by McAdam. It thus appears that the royalty varied widely from year to year.

part of the tar works in which he had joint interest (valued at a total figure of £731), it was computed that he owed McAdam eleven shillings and sixpence halfpenny! McAdam by this means became sole owner of the British Tar Company works in their entirety, and retained the right to the lease of the Kaimes' coal lands, including one-half the royalty (above £50) payable by the Muirkirk Iron Company. This business venture, which began so suspiciously in 1782, which McAdam purchased so optimistically in 1790, and which had caused him so much grief in the meantime (almost bringing about his financial ruin), was at last to serve him as a sound and secure investment. Throughout most of the remainder of his long life, the proprietorship of the British Tar Company and the royalties and income from his Kaimes' lease were to provide him with a large measure of economic security and independence.

Relations with the Muirkirk Iron Company proved amicable during the ensuing two decades. New partners took over that company, which suffered considerably during the economic depression following close upon the final defeat of Napoleon. In 1817 the iron works, consisting of three blast furnaces and two forges, with other equipment, were offered for sale. The roup was advertised in the newspapers throughout Scotland and England, but no buyer was found at the upset price of £11,000

sought by the partners. Interestingly enough, the "unworkable" coal at Kaimes was glowingly described by the Muirkirk Iron Company with these words:

> The colliery is completely fitted to the crop, drawn by two large engines, and for a moderate outlay may be won to the dip, so as to command a field of about one million tons. The principal seams of coal are three, seven and nine feet, of excellent quality, and laid on the bank at low prices.[29]

The Muirkirk Iron Company, with its property for sale, was singing to a different tune!

In February 1817 McAdam addressed a reply to a letter from James Ewing, a Glasgow merchant who was the leading partner in the shaky iron company. He said in part,

> I received your letter of 21 instant and have to lament, in common with many others, the pressure of the times.
>
> The Coal Tar trade has felt the effects, as well as others, of want of sale and depression of price, which would be very discouraging if we did not look forward to better times.
>
> I am at a loss how to give the advice you ask, as it seems you have already resolved on your measures, otherwise I should have called your attention to the fact of your having, with some other wealthy individuals, stood the worst time out.... these circumstances, together with the gradual revival of trade in general seem to promise almost a certainty of the reward of those who, like yourselves, have been able to hold out through the whole time of distress -- I should also have reminded you of the favourable situation you stand in, with respect to Rents and Lordships [royalties], the very good quality of your produce and that you are not weighed down by the burthen of a large capital in the business.
>
> No doubt all these considerations have presented themselves to you and I ought to apologise for suggesting them....

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29 Advertisement of the Works, 24 May 1817, Muirkirk Iron Company MSS. (Bairds & Dalmellington, Glasgow).

It may be objected that the new fitting your Coal will be an advance of capital perhaps of £5000 or £6000, but such a sum bears no proportion to the value of a manufactory of the magnitude of yours at Muirkirk, actually at work; and independent of all other considerations, the price of fitting the Coal will be amply repaid by the additional strength and quality, -- the field being now explored in its whole length you are freed from every disadvantage and expense that can proceed from uncertainty; this expense has been defrayed by your predecessors and you have only now to reap the advantage.

My connection is of so little importance in the great scale of your concern that I am unwilling even to mention it, I have no inducement to hold out to you that could weigh a feather in the balance, but I may be allowed to say that I should have been most ready to prove to you how sensible I am of the very pleasant manner in which your concern have conducted themselves towards me since your purchase, and that I should have been happy if an opportunity had been given to me of shewing my sense of obligation to you collectively and individually.

The only thing that deserves being named is the Kaimes Coal of which about 24 acres would be won by the deep fitting and it is certainly of the best quality and the cleanest field in the Parish -- this Coal is mine for 60 years after the expiry of your present lease, and as far as it could have been useful to you, I should have been ready to accommodate with a lease.[30]

Ewing answered this friendly and persuasive letter in June. He hoped McAdam would be able to assist in finding a buyer in England for the iron works, and urged McAdam's activity to this end on the grounds that he required someone to work the Kaimes' coal and utilize the coke from the tar kilns. Ewing offered him a commission for his trouble.[31] To this McAdam replied on 23 June, urging the company to continue. He felt the iron

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30 Bristol, 26 February. A copy of this letter exists among the Muirkirk Iron Company MSS.

31 14 June 1817, a copy among the Muirkirk Iron Company MSS.

business was recovering, he said, and that the Muirkirk Iron Company was unusually sound.[32] In spite of this friendly letter, throughout the autumn of 1817 and in the spring of 1818, as it became apparent that the iron works could not be sold, Ewing and his Edinburgh agent (Patrick Cockburn, W. S.) sought to find a legal loophole in their contract with McAdam and in the "Mutual Discharge" of 1803. They knew that McAdam would hold them tightly to their lease of Kaimes. In their search, however, they were either half-hearted or dilatory, for the Edinburgh lawyer experienced difficulty even in locating the relevant papers of the Court of Session, which contained the details of the litigation leading to the discharge of 1803.[33]

Four of McAdam's children were at home with their parents during these early Bristol days. James was establishing himself in business in Bristol; Gloriana Margaretta and Georgina Keith, both unmarried, were at home; and the youngest, "Loudon," was only an infant. Nothing is known, unfortunately, of their home life at this time. Ann, who had married in 1801, was away with her husband and child. William was in Ayrshire, managing

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32 Quoted by George S. Barry, "John Loudon Macadam," Journal of the Institution of Municipal and County Engineers, LXIII, No. 10, 10 November 1936, p. 27.

33 Numerous letters from Cockburn, with copies of replies, are in the Muirkirk Iron Company MSS.

the British Tar Company, and apparently doing well. His father, who was in London at the time, wrote to him on 2 September, commenting primarily on the status of the Muirkirk Iron Company, and its prospects. He said that iron was very scarce in London and Bristol; that the Muirkirk stocks of 1,500 tons were worth £2,000 more than six months previously; and that "Tar making has become as bad a trade as ironmaking has improved. I can purchase tar in London for the wages I pay in Muirkirk and I only proceed because I am more confident of the quality under my own management."[34]

The Bristol Common Council Proceedings record that on 17 July 1805 "John Loudon MacAdam Mercht" petitioned for admission as a freeman of the city.[35] His name led the list of fifteen applicants. Others cited their occupations as "Victuallor," "Hooper," or "Shopkeeper." The fines ranged from fifteen to thirty-five guineas, only McAdam being assessed for the

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34 The letter was addressed to William in Glasgow and is noted in Barry, op. cit., pp. 27-28. This latter comment suggests that McAdam was primarily concerned with the merchandising of tar and by-products. Perhaps that was the business of the James McAdam & Co. in Bristol.

35 Common Council Proceedings, 1802-1808. This volume, and those mentioned hereinafter which pertain to Bristol, are located in the Archives of the City of Bristol.

highest figure, which, to some extent, indicates an economic status higher than his fellow-petitioners. It was necessary for him to follow this procedure -- petition and payment of a fine -- if he wished to attain the privileged status and the prestige of a freeman of the city.[36] And to a man of his temperament, it would seem essential that he attain the liberties of Bristol at the earliest possible moment.

The initiation of action to secure admittance to the freedom of the city had been entirely voluntary, and it is surprising that the evidence extant indicates that McAdam never paid the fine. His name does not appear in the Book of Burgesses, which lists all freemen;[37] it is not cited in the Cash Book, in which were recorded all payments made to the Chamberlain;[38] and a note in the Freedom Book orders that if a freedom granted is not taken up within six months, "Mr. Chamberlain is hereby ordered not to admit such freedom." No Burgess Certificate exists for McAdam, and he never voted in a parliamentary election in Bristol, although resident there during the elections

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36 Other modes of acquiring this status were by birth, by marriage, or by serving an apprenticeship of seven years in the city -- avenues not open to McAdam.

37 Burgesses Book, 1786-1812.

38 Cash Book for the period in question.

of 1812 and 1818.[39] The conclusion, therefore, is inescapable -- that McAdam never paid the fine. This is further borne out by the fact that his son James was admitted to the status of a freeman in March 1809, on payment of a fine of thirty-five guineas. If the father had become a freeman prior to that date, the son would have automatically taken up his freedom upon payment of the nominal fee of four shillings and sixpence.

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McAdam seemed always to take a sincere interest in county and civic affairs, and constantly strove to overcome the rather rigid confinements forced upon him by his "respectable" but unpretentious social caste. Upon his return from America he was soon active as a road trustee, magistrate, militia officer, and eventually was named a deputy lieutenant in Ayrshire. In Bristol he revealed a similar civic-mindedness, serving from 1806 as a "Commissioner for paving, pitching, cleansing, and lighting the City of Bristol and Liberties thereof;" and in 1816 he consummated a sincere interest in jail reform by leading a popular revolt against the civic oligarchy in the Newgate Gaol controversy.

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39 Bristol Poll Books.

Newgate, the "Common Gaol" of Bristol city and county, had long been an example of the worst type of abuse and corruption in penal administration, as well as a model of ill-planned prison construction. John Howard had several times condemned it, describing it as "white without and foul within."[40] Young and old, debtor and felon, male and female -- all were mixed indiscriminately into crowded accommodations with no attempt at reform. Punishment, severe and ruthless, was the purpose of Newgate. Drinking and gambling were the sole occupations of prisoners who had no other employment, and "tippling" was permitted even during the Sunday morning worship services in the chapel.[41] The food was dirty and insufficient, despite charitable contributions by compassionate townspeople. Perhaps most tragic was the extended confinement of debtors and the accused but untried prisoner in filthy quarters with hardened criminals.

Agitation had secured the passage of an Act of Parliament in 1792 providing for the erection of a new jail,[42] but the law was never executed. The ratepayers in tumultuous mass meetings protested the imposition of the necessary increase in the

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40 John Latimer, The Annals of Bristol in the Nineteenth Century (Bristol, 1887), p. 65.

41 Ibid.

42 Act 32 George III, cap. 82.

property taxes.

In April 1813, however, the affair approached a final decision when a Grand Jury at Quarter Sessions, having received a report on oath from four eminent physicians, drew up a unanimous presentment demanding the rebuilding of Newgate Gaol.

The Corporation soon announced it would apply to Parliament for authority to erect a new jail near Castle Street, if the citizens would consent to pay for it and relieve the Council of the burden of its support. Further dilatory tactics aroused a general clamor for direct popular action, culminating in the formation of a Committee of Citizens to take the matter in hand. On 10 July 1815 the General Quarter Sessions resolved upon the removal of Newgate Gaol from Wine Street to Castle Street. But the Committee of Citizens felt the suggested measures inadequate, and the proposed site undesirable.[43] The Common Council on 16 January 1816 received a communication from the Committee of Citizens on the subject, but unskillfully sought to dodge the issue when, upon the motion of Richard Bright, it declared that it could not with propriety interfere, for the subject was under the jurisdiction of the Quarter Sessions. The expense of a new jail would be so great, they conceded, that the Council further

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43 Felix Farley's Bristol Journal, 27 January 1816.

resolved it was willing to contribute to the cost of the erection of the new structure. Both resolutions were unanimously passed, and the clerk was directed to submit a copy thereof to John Loudon McAdam, the chairman of the Committee of Citizens.[44]

To consider the recent action of the Council, "A General Meeting of the Delegates of the Several Parishes in the City of Bristol /was/ held at St. Peter's Hospital on Friday, 26th. January 1816."[45] Nine resolutions were passed, with unanimity prevailing in each case,

1. that the Common Council has inadvisedly declined the respectful invitation to meet with the deputies;
2. that the meeting deprecate, as sincerely as the Common Council, any improper interference with the magistracy, in the execution of existing laws;
3. /unimportant/
4. that a Memorial be presented to the Mayor, Aldermen, and Common Council, asking consideration of the subject, a candid disclosure of the extent of Corporate funds, and assistance in applying to Parliament;
5. /unimportant/
6. that the former committee be continued in office (composed of McAdam, Robert Bush, and Charles Vaughan);
7. that the inhabitants of Bristol must be prepared, in the event of a refusal, to petition Parliament in the ensuing sessions, for relief;
8. that the resolutions be printed in the newspapers, and otherwise circulated among the public;
9. that the resolution be signed by the chairman on behalf of the meeting.

Whereupon McAdam vacated the chair, and the citizens further demonstrated their unanimity on the occasion by resolving that

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44 Common Council Proceedings, 1814-1820.

the thanks of the meeting be tendered McAdam for his "able and attentive" conduct in the chair.[45]

Late the following month (24 February) the Common Council appointed a committee of three, consisting of the Mayor, the Sheriff, and Sir Richard Vaughan (a wealthy banker), to meet with three members of the Citizen's Committee for arbitration. On 7 March the Council's committee reported that it had conferred with McAdam, Robert Bush, and Andrew (?) Pope, and had decided to seek a new Act of Parliament by joint action. The Mayor's Committee promised on behalf of the Council a contribution of £1,000 per annum for five years toward the erection of the new jail.[46]

Unfortunately, this conference did not by any means conclude the dispute. McAdam, Bush, and Vaughan spent most of the month of May in London, testifying before a Select Committee of the House of Commons and otherwise lobbying on behalf of the Citizen's Committee. Their aims were to secure a suitable jail, financed by the Common Council and constructed on principles designed to secure at least the minimum of sanitation, comfort, and segregation. They further demanded that it be erected on the site selected by themselves as the most appropriate.

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45 Felix Farley's Bristol Journal, 27 January 1816.
46 Common Council Proceedings.

Felix Farley's Bristol Journal sided consistently with the irregular Citizen's Committee, and condemned the action of the Magistrates in opposing the popular group as contrary to the best interests of the city and county of Bristol. In a long editorial the editor discussed an especially stormy session of the Select Committee on 21 May, when Edward Protheroe, one of the two Bristol Members of Parliament for Bristol, made six compromise proposals for the erection of the jail. Three of his measures were bitterly opposed by the popular deputation. They could not accede, they declared, to the provision for a Commission for the erection and management of the new jail on which the representation of the Common Council should be in the majority; nor would they agree to allow the Council to select the site of the building(s), nor that the sum to be raised should be determined by the Justices.[47]

The bill as finally enacted was a compromise measure, weighted in favor of the Citizen's Committee. Parliament in the preamble noted the great need for a new structure, pointing out that

> it would be of great Public Utility if a new Common Gaol, with all necessary conveniences, were erected and built, or provided, in some other part of the said City and County of

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47 Felix Farley's Bristol Journal, 25 May 1816.

Bristol; and if Provision were made for the Separation, Employment, and Regulation of the Prisoners who may be committed....[48]

The commission, which was created by Section 2 of the act, recognized the Citizen's Committee by naming three of its leaders (McAdam, Bush, and Vaughan), who would be self-perpetuating, to its membership, together with five Common Councilmen, the mayor and aldermen. Careful provision was made that all business would be conducted in open meetings, with at least five commissioners present, called by public announcement; the minutes were specifically said to be admissible as legal evidence if required. To insure prompt action, the commissioners were ordered to proceed with all "convenient" speed to erect the jail, and to purchase premises within three years. Careful details were set forth to secure proper ventilation of the jail, segregation according to sex and offence, and the proper "Reception, Security, and Health of the Prisoners." The old Newgate Gaol was ordered to be sold, and the new building(s) erected in some other part of the city at a cost not to exceed £60,000. This sum was to be raised by a pound rate levied on all the property in the city and county, and when erected, the institution was to be maintained solely by the corporation.

The news of the compromise measure quickly reached Bristol, where on 30 May the citizens in a joyful assembly overwhelmingly

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48 Act 56 George III, cap. 59.

approved of what had been done. They gave a unanimous vote of appreciation to McAdam, Bush, and Vaughan "for their zealous and judicious conduct as the London Deputation, by which terms have been obtained calculated to meet every reasonable wish of the Citizens."[49]

For some three weeks a verbal controversy raged in the columns of Felix Farley's Bristol Journal, which had consistently sided with the insurgent citizens, and had on 25 May and 1 June printed the deputation's version of what had transpired at the meeting of the Select Committee of 21 May. Edward Protheroe claimed that the newspaper narrative of his conduct on that occasion was in error, and long letters from each party filled the columns of the Journal on 8 and 15 June. By 22 June, however, goodwill letters were printed in the paper, and Protheroe stated his satisfaction that his honor had been vindicated.

The new Common Gaol, which was erected in Bedminster Parish, was completed by 1820 at a cost greatly exceeding the parliamentary limit of £60,000. Newgate, with its site, was abandoned, and the building torn down.[50] Throughout the period

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49 Felix Farley's Bristol Journal, 1 June 1816. While the vote of appreciation was unanimous, two of the sixty delegates present objected to a part of the compromise agreement.

50 Latimer, op. cit., pp. 67-68.

required to erect the new jail McAdam, who was a commissioner, took an active interest in the work of construction. This is indicated in a letter to his son, written at this time, in which he remarked that he was encountering great difficulty in securing supplies of iron for the erection of the "Shepton Mallet Gaol."[51]

Further intimation of McAdam's part in civic and philanthropic affairs is found in several editorial notes in Felix Farley's Bristol Journal of 1826.[52] He had been sent by both the Government and the London Committee to the Relief Committee of the North "to give his advice and assistance in devising the best means of finding employment for the distressed mamufacturers [factory workers]." A severe depression was causing great unrest, particularly in Lancashire, and McAdam's task was to provide "public works" (financed by private philanthropy) -- the building and repair of roads, the construction of reservoirs, the improvement of drainage systems, and other projects -- to alleviate unemployment. Further personal details of this interesting relief scheme in the early nineteenth century are unfortunately lacking. McAdam's service was no doubt

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51 John Loudon McAdam to William McAdam, 2 September 1817, quoted by Barry, op. cit., p. 28.

52 Felix Farley's Bristol Journal, 26 August and 9 December 1826.

largely professional, but from his reports to the Journal it is evident his interest was also humanitarian.

Almost nothing is known of McAdam's political opinions. As has been noted, however, he never voted while in Bristol, for he never became a freeman of that city. His political coloring is indicated, nonetheless, by his apparently close association with Richard Hart Davis, M. P. He presided at a meeting of the friends of Davis, who was retiring from Parliament in 1826, and the friendly sentiments there expressed were conveyed to Davis by John Bush and John Loudon McAdam, Jr.[53]

McAdam was wholly an extrovert, and a born reformer. Never idle, he seemed always to find time for two or three "crusades," although he did not limit his crusades to his hobbies, but spent the last twenty years of his long life in his greatest reform project. In that task he was as self-confident and as consecrated as John Howard had been a generation before in his agitation for prison reform. And in these final busy twenty years, McAdam revealed that his eagerness for the fray, his impetuousity, and his fearlessness in the face of official conservatism had not faded with the years, and that senility could not overtake him until the very last of his threescore years and ten.

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53 Bristol Mirror, 3 June 1826.

CHAPTER VII

TURNPIKE ROADS IN GREAT BRITAIN

Good roads are both a cause and an effect of civilization. The progress of a nation's culture may almost be gauged by its means of transportation, for the flow and interchange of ideas as well as goods is dependent upon rapid and convenient transportation facilities.

> Developments in transportation and communication have linked the world closer together, have broken down the old provincialism, have facilitated the exchange of commodities and ideas, and have added much to the possible pleasure of life, while they have created still further new wealth. They have helped men to explore and settle the wilderness, and to centralize business and government both at home and overseas.[1]

To the Romans good roads meant speedy communication of orders and the rapid disposition of armies; to the early modern Briton the prospect of good roads meant cheaper raw materials and wider markets; to the modern inhabitant of Great Britain good roads bring not only the possibility of economic advancement but longer holidays, more prompt medical attention, and the greater mobility of labor.

In many ways the difference between Roman Britain and the

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1 Walter P. Hall and Robert G. Albion, A History of England and the British Empire, 2nd ed. (Boston, 1946), pp. 505-506.

modern kingdom of Great Britain can best be depicted by their roads. Roman roads were limited to a few main thoroughfares crisscrossing the island south of Scotland; they were constructed expensively, with little regard for human life; they were unswerving regardless of terrain, extremely durable, of elemental grandeur. Modern Britain, on the other hand, possesses a complex network of arterial and cross roads, carefully incorporating separated lanes, roundabouts, safety lines, warning signs and signals, highway numbers, "fly over" systems, clover leaf intersections, electromatic signals, subway crossings, and varied smooth, hard surfaces of great durability -- the entire system constructed by labor-saving machinery and designed for the comfort, enrichment, and driver-pedestrian safety of rich and poor.

The narrative of how the modern road came about is deeply intriguing, for it comprises no less than the history of the British people. Yet many classical historians of the early modern era, and some modern historical scholars, have neglected this field to the detriment of their work. The most detailed and scholarly study devoted entirely to transportation in Great Britain, by Jackman, is not widely known,[2] whereas the excellent

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2 William T. Jackman, The Development of Transportation in Modern England (Cambridge, 1916), 2 vols.

brief surveys by the Webbs are more familiar.[3] Smiles' interesting narrative is little read today,[4] and Gregory's extremely readable volume, while only recently published, appears to have appealed only to a limited audience.[5]

Few other meritorious works on roads exist in the English language, yet even so, Great Britain has been more carefully studied than, for example, France, whose most recent writer on the subject (Henri Cavilles) complained in 1946,

> Il n'existe pas, à notre connaissance, d'histoire de la route française. L'ouvrage de Vignon est une Etude historique de l'administration des voies publiques (4 vol., Paris, 1862-1880). C'est un travail de premier ordre, peu vieilli, rendu infiniment précieux par la collection des Pièces justificatives (environ les deux tiers de l'ensemble) qui l'accompagne. Mais ce n'est pas une histoire de la route. Encore se limite-t-elle à l'Ancien Regime. Le charmant livre de J. Bonnerot, Les Routes de France (Paris, 1926), est une simple esquisse. De son côté, P. Vidal de la Blache a laissé, outre son inoubliable Tableau de la géographie de la France et ses Principes de géographie humaine (IIIe partie: La Circulation), une vivante description des Routes et chemins de l'ancienne France (Bull. de géographie historique et descriptive, 1902, p. 115-126), et Jean Brunhes, deux utiles chapitres de sa Géographie humaine de la France (t. II, ch. XXI et XXII) dans l'Histoire de la Nation française

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3 Sidney and Beatrice Webb, Statutory Authorities for Special Purposes (London, 1922), Chapter III, "The Turnpike Trusts," and The Story of the King's Highway (London, 1920), both works in the English Local Government Series.

4 Samuel Smiles, Lives of the Engineers (London, 1861), I, Pt. 3, "Early Roads and Modes of Travelling."

5 J. W. Gregory, The Story of the Road from the Beginning Down to A. D. 1931 (London, 1931).

publiée sous la direction de G. Hanotaux. Mais, quel que soit l'intérêt de ces travaux, ce ne sont encore que des contributions. Il faut recourir aux sources directes.[6]

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Although the Romans did not build the first roads in Britain, nothing survives to indicate either the location or the nature of earlier roads. About the Roman roads, however, a great deal is known, for not only are there records extant which indicate their course and composition, but even after 2,000 years portions of the Roman roads in Britain and on the continent are still visible.

Whereas modern engineers carefully adapt the road to traffic and terrain, and seek to avoid unduly steep gradients, the Roman engineers who planned and supervised the building of Roman roads seem to have realized in an elementary fashion only that "a straight line is the shortest distance between two points." Radiating from London in lines as nearly straight as possible, the Romans constructed a number of military roads varying from fifteen to twenty-five feet in width. Fosse Way extended from Exeter to Lincoln; Ermine Street (later the Great

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6 La Route Française, Son Histoire Sa Fonction (Paris, 1946), p. 9.

North Road) from London to the northern frontier; Watling Street from London northwestward to Chester; and the Antonine Way from London to Exeter via Bath. There were, in addition, the Icknield Way and a few other arteries.

The Romans generally constructed roads of four layers of material. First were laid in a trench dug for the purpose two or three courses of flat stones placed in mortar; then followed a thick layer of rubble masonry; next a mixture of concrete; and finally there was laid -- "jointed with the greatest nicety" -- a pavement of polygonal blocks of hard stone. Frequently the finished roadbed was three feet in thickness.[7]

Following the departure of the Romans in the fourth and fifth centuries, their roads gradually fell into decay if not into disuse, and the island for 1,400 years was not to see such an excellent system of roads.

Throughout the so-called "Dark Ages" in Great Britain, the art of building roads was apparently little known and practiced.

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7 These four layers were known respectively as statumen, rudus, nucleus, and summa crusta. See "Roads and Streets," Encyclopaedia Britannica, 14th ed. (London and New York, 1929 and 1932), XIX, p. 340; Andrew P. Anderson, "Roads and Highways, Historical Review," Encyclopedia Americana (New York and Chicago, 1941), XXIII, p. 538; Jackman, op. cit., I, pp. 2-4. Descriptions of the methods followed by the Romans differ slightly with the various authorities.

After the Roman bridges decayed -- a bridge of stone will rarely stand more than a century without adequate repairs -- only a few were constructed in the intervening five hundred years, and such roads as were maintained were little more than tracks, suitable only for infrequent travelers on foot or horse. The packhorse was the only mode of land transport for merchandise, except for the backs of men.

With the beginnings of manorial records, however, it was revealed that there had already developed a sense of responsibility on the part of landed proprietors, at least in theory, to care for the roads across their properties. Roads as they are known today scarcely existed, even in the later medieval era.

A medieval and early modern road was merely a right of way, generally following the crest of the hills to avoid swampy areas and to provide as wide a view of the surrounding countryside as possible to lessen the danger from highwaymen. This right of way, frequently varying as much as several hundred yards at any given place, became known as "The King's Highway," signifying an inherent, legal, and customary right of passage residing in the sovereign and his subjects.

Until near the close of the thirteenth century the

obligation to maintain these "roads" devolved upon the lords of the manor, who in turn usually required their tenants to perform this service, the court leet settling all disputes arising from their obligation. The theory of this arrangement was not completely illogical, but in practice little was accomplished, and the roads almost invariably went untended.

Possibly the first English law designed to bring about road improvement was passed during the reign of Edward I in 1285.[8] This law, contained in the important Statute of Winchester, provided

> that highways leading from one market town to another shall be enlarged, where as woods, hedges or dykes be, so that there be neither dyke, tree, nor bush whereby a man may lurk to do hurt, within two hundred foot on the one side and two hundred foot on the other side of the way.[9]

Ostensibly this act was designed as an exercise of the royal "police power," but nevertheless it served to provide for the widening of the highways of the realm.

Although occasionally medieval roads and bridges were repaired as works of piety for which indulgences were granted,[10]

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8 Webb, Story of the King's Highway, op. cit., p. 6.

9 Cited by Jackman, op. cit., p. 5, as Act 13 Edward I, cap. 5.

10 J. J. Jusserand, English Wayfaring Life in the Middle Ages (London, 1889), deals with this subject rather fully.

it seems obvious that only the wealthy could afford such expenditures, and that comparatively little was accomplished by this program. It is true, also, that religious orders and members of the hierarchy, as landowners, often repaired roads and bridges, as did an occasional guild.[11] But religious zeal was spasmodic, and the administration of the law often uncertain. More potent as an incentive to the maintenance of late medieval and early modern roads and bridges was the visit of the king or other high dignitary. Almost all wished to secure the royal approbation -- the lords of the manors, mayors, sheriffs, and clergy.

The roads of Great Britain from the days of the Romans until the period of the later Tudors, therefore, were largely uncared for. There were no professional surveyors; the economic need for improved transportation and communication was not strong; in the absence of wheeled vehicles the pressure for improved roads was negligible; and the responsibility for the construction and repair of roads, bridges, and streets was not effectively centralized nor were the existing statutes generally enforced.

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11 E. g., the Guild of the Holy Cross in Birmingham.

Whereas historians have somewhat arbitrarily divided "medieval" from "modern" times at approximately the year 1500 A. D., there occurred no more sudden transformation in the roads and the means of transportation in Britain at that time than there transpired sudden alterations in literary composition, artistic achievements, or politics. Yet the same kernel of truth is present -- there did emerge with the general enlightenment in human culture and religion a "commercial revolution" in the fifteenth and sixteenth centuries, and at least by the latter century there began a livelier interest in the creation of an improved network of roads.

In part this quickening was due to the vigor of the Tudor reigns, in part to the increase in maritime trade which in turn encouraged internal trade and commerce, and characterized the latter half of the sixteenth century. For this reason, and perhaps as a result of the general adjustment attendant upon the dissolution of the monasteries (1536-1540), Parliament in 1555 enacted a "Statute for Mending of Highways."[12] This act, which

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12 Act 2 and 3 Philip and Mary, cap. 8. Among others, Dorothy Ballen, Bibliography of Roads (London, 1914), pp. xvi ff., presents a very brief but accurate summary of this and later road legislation in Great Britain.

is certainly a landmark in English local government legislation, placed the burden of road upkeep directly on the parishes, which annually were to appoint two parishioners to serve as unpaid (and often unwilling) surveyors. The constables and churchwardens were to appoint four days annually on which all householders of the parish were to assemble with tools and draft animals to work on the roads. Penalties were to be exacted of delinquent householders, and of negligent surveyors as well.

The unpaid, amateur surveyor was required to make a careful annual accounting of his funds, and three annual inspections of the roads. Further, his was the onerous task of compelling his friends and neighbors to contribute the required "statute labor" to the upkeep of the roads. This obligation extended even to the making of a presentment of delinquent parishioners before the Justices of the Peace. This act, then, established two important precedents which vitally affected Englishmen and later Scotsmen for three centuries: parish responsibility for roads, and statute labor.

In 1562 the Act of 1555 was extended for twenty years, with added powers given the surveyors, and statute labor increased from four days to six;[13] in 1575 a second modification

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13 Act 5 Elizabeth, cap. 13.

was made increasing the authority of the surveyors;[14] and in 1586 statute labor was made "perpetual," all the inhabitants being made liable for six days' work per annum, either in person or by proxy.[15] The statute labor system thus inaugurated in 1555 was continued with minor variations until 1835, when with universal approbation it was abolished in the general wave of reform following the Great Reform Bill of 1832.

The passage of the Tudor legislation by no means effected a radical transformation in either the technical repair or the financial administration of English roads. Amateur supervision of unwilling, amateur labor was totally unable to bring about greatly improved roads. Yet there began in the sixteenth century a slow evolution which culminated in the early nineteenth-century era of brief coaching glory dominated by McAdam and Thomas Telford, and the ultimate establishment of a professional class of skilled engineers utilizing new and standardized procedures.

Only one measure of consequence relating to roads was passed during the period of the early Stuarts. In 1621 and again in 1629 James I issued proclamations forbidding the use

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14 Act 18 Elizabeth, cap. 10.
15 Act 29 Elizabeth, cap. 5.

of four-wheeled wagons or the carriage of a load greater than one ton in any vehicle. -- Roads must have been very insubstantial in the early years of the sixteenth century!16

The Commonwealth, which enacted so much progressive legislation, passed an ordinance which altered previous enactments significantly. The statute labor system was supplanted by an annual assessment for road repairs not to exceed twelvepence in the pound; and wagons and carts were not permitted to employ more than five horses in a team, a provision designed to enforce a limit in weights carried.17 Unfortunately, this great advance (not permanently attained until 1835) was swept away with all other Commonwealth legislation upon the return of the Stuarts in 1660.18 And in 1662 "An Act for enlarging and repairing of the common highways" was passed, reviving statute labor and empowering the surveyors acting with two or more "substantial householders" to levy an annual assessment not in excess of

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16 Jackman, op. cit., I, p. 52; also, Henry Parnell, Treatise on Roads (London, 1833), p. 16.

17 Cited in Jackman, op. cit., I, pp. 52-53.

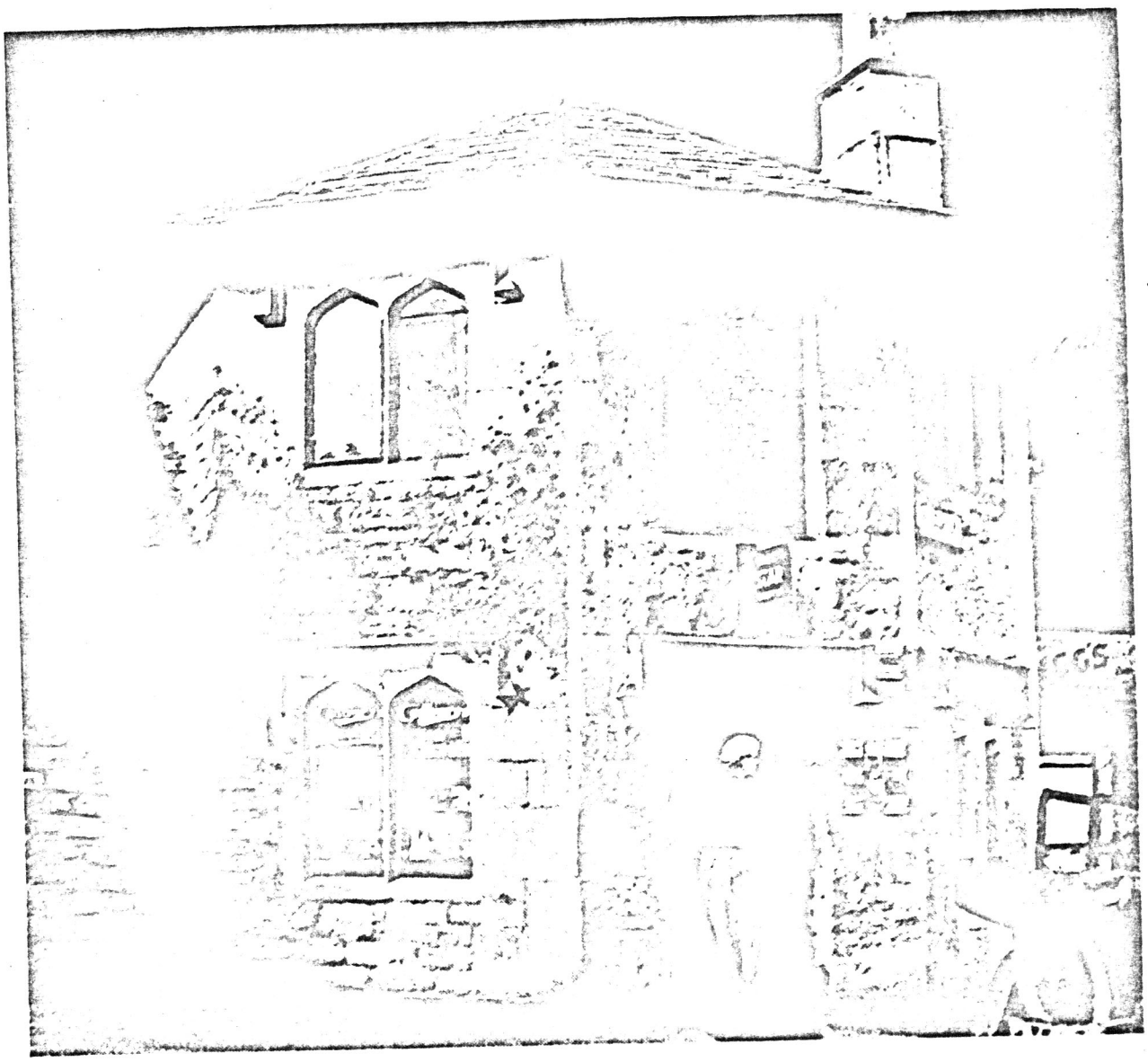
18 It is interesting to note that a similar action and reaction occurred in France a century later: early in 1776 Turgot secured the abolition of the corvee, only to see it restored later that same year by his replacement, Necker. This relic of feudalism, however, was finally abolished in France in 1787. It is only fair to state, however, that English statute labor was never as rigorous as the corvee, nor was it so oppressive a piece of class legislation.

sixpence in the pound -- this upon the countersignature of the justices. This act is of further significance, however, in that it represented an additional step toward the more rigorous regulation of weights, wheels (minimum width of four inches), and road widths (not less than eight yards).[19] The provisions of this act were little enforced, it appears, for they were variously reenacted in 1670,[20] and again in 1691[21] with the explanation that there was almost universal nonconformance with the provisions of the Act of 1662.

If the Act of 1555 represents a major landmark in English road legislation, certainly the Act of 1663 is equally noteworthy, for while the one assigned responsibility for roads to the parish and initiated the system of statute labor, the other inaugurated the turnpike system based on the rule that "every person ought to contribute to the roads in proportion to the use he makes or the benefit he derives from them." This was not an entirely new principle, for there were as early as the twelfth century isolated instances of "traverse tolls," as well as "murage," "pavage," and "pontage" tolls, generally limited

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19 Act 14 Carolus II, cap. 6.
20 Act 22 Carolus II, cap. 12.
21 Acts 3 and 4 William and Mary, cap. 12.



BUTTER ROW TOLL HOUSE NEAR STROUD, GLOUCESTERSHIRE

The toll board of charges can be seen above the door.

to the towns.[22] Yet this legislation created the first of the so-called turnpike roads.

The Act of 1663 was entitled "An Act for repairing the highways within the Counties of Hertford, Cambridge and Huntingdon."[23] This road, an extensive length of the Great North Road, was inadequately maintained, complained the preamble to the act, and its general importance to the kingdom required that Parliament grant relief for its maintenance to the three counties named. Consequently, the justices in the several counties were ordered to choose three surveyors each, and to erect one toll gate each. A collector of tolls must then be employed by the justices, to whom the receipts were to be delivered periodically, and both the collector and the surveyors were to keep the justices advised of their performances. Penalties were imposed upon all who refused to pay the toll. Furthermore, the receipts of the tolls might be mortgaged if desirable, and if the sums thus obtained were insufficient, the Quarter Sessions might lay a rate on the entire county. Statute labor was continued.

Jackman states that this act was never enforced in Huntingdonshire, that the gate at Caxton in Cambridgeshire was so

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22 Jackman, op. cit., I, pp. 9-12.
23 Act 15 Carolus II, cap. 1.

easily evaded that no toll was ever collected there, and that it was only in Hertfordshire that there was any substantial result obtained, that portion of the road being much improved.[24] In 1665 the earlier act (1663) was extended to twenty-one years, but only for Hertfordshire,[25] and upon its expiration was not renewed. By 1692, however, the roads of Hertfordshire had deteriorated so completely that Parliament felt it expedient to reconstitute the turnpike arrangement, and this was done by Act 4 William and Mary, cap. 9.

Prior to 1700 only four turnpike acts were passed, but throughout the eighteenth century numerous statutes were pushed through Parliament creating gradually an integrated system of turnpike roads which were superior to the "highways"[26] maintained solely by the parishes. By 1814 there were nearly 1,100 turnpike trusts in England and Wales, supervising more than one-sixth of the total mileage then extant.[27]

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24 Jackman, op. cit., p. 63.

25 Act 16 and 17 Carolus II, cap. 10.

26 In the eighteenth and nineteenth centuries the term "highway" referred to parish roads which were not turnpike; a turnpike thoroughfare constituted a "road;" while the term "street" designated a thoroughfare in a town or city.

27 Of 114,864 miles of public highways, 19,791 were either turnpike or paved streets. No breakdown of the latter figure is given. See "The County Totals...," Parliamentary Papers, 1818 (431) XVI.255.

During the early years of the eighteenth century the turnpike system took the form it was to maintain until its demise almost two hundred years later. In 1706 there was instituted a special body of trustees upon whom the management of the turnpike roads devolved, thus supplanting the justices of the peace in performing this function. These trustees were invariably "gentlemen" possessed of the leisure, and presumably the talent, interest, and integrity requisite for the successful operation of the turnpikes. In Scotland the unit of general administration was wisely made conformable to county lines, with "district trusts" exercising local jurisdiction but responsible directly to the "general trustees." The "district trustees" were those "general trustees" living in the respective districts of the county.

In England and Wales, however, many hundreds of trusts were created, each largely independent of the Quarter Sessions and in most matters responsible only to Parliament -- thus in effect irresponsible and autonomous legal entities during the existence of their charters. There were, for example, fifty-one turnpike trusts in Gloucestershire in 1820, supervising the affairs of 897 miles of road, an average of only seventeen and one-half miles per trust.[28]

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28 "Report from the Select Committee... /on/ Turnpike

After 1716 turnpike surveyors were given the right to commute that portion of the statute labor legally assigned them for the upkeep of turnpike roads.[29] This was a progressive measure which proved beneficial, and by 1800 most trusts were taking advantage of this proviso. Yet it must be remembered that throughout the turnpike era there existed a dual system of roads in the counties, a turnpike system embracing the main arteries of travel, and a continuing network of less important parish highways administered by the justices and supervised by parish surveyors.

At first the turnpike acts were periodically renewed without question, but there soon developed contesting interests, with groups of lobbyists seeking special concessions for themselves, their friends, or their clients. Parliamentary calendars by 1800 were crowded each session with scores of turnpike bills, and the funds of the trusts were often seriously dissipated in the expensive process of periodic renewals.

In 1828 E. J. Littleton resubmitted to the Parliament resolutions he had brought forward the previous year to relieve the trustees and Parliament of this burden. He recalled the

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Roads and Highways in England and Wales," Appendix 2, Parliamentary Papers, 1821 (747) IV.343.

29 Webb, Story of the King's Highway, pp. 117-118.

rejected report of the Select Committee on Turnpike Roads and Highways (1821) favoring the elimination of this expense, and cited the stupendous mortgage debt of English trusts (£4,474,530) with £500,581 in interest payments overdue, while for Wales the figures were £238,166 and £34,078 respectively. Scottish trusts, he continued, labored under a burden of debt amounting to £1,327,946, and owed £263,975 in overdue interest. Thus there was a grand total debt of £6,839,278, an average of £6,218 per trust! Littleton then indicated that the ordinary fees for the renewal of turnpike charters was generally £148, of which £83 was exacted in the Commons, and £65 in the Lords. The average cost of printing a bill was £26.5s, making the total disbursement in Parliament £184.12s. Other fees, he charged, often brought the grand total for one renewal to £1,000.[30] Having thus presented his case, Littleton moved to exempt turnpike

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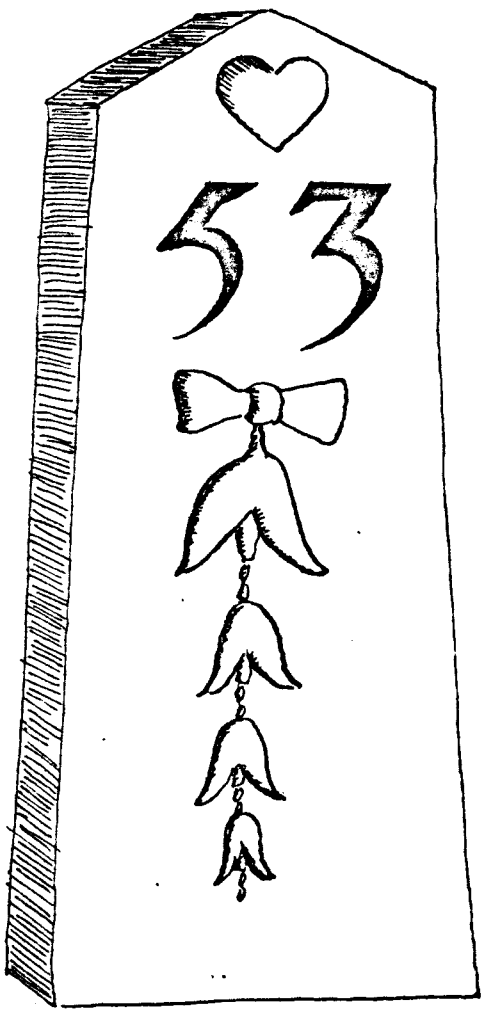
30 The County of Perth reported an expenditure in 1831 of £1,472.11s.2d. for a new turnpike act -- £579.15s.6d. for London solicitors (£331.15s.6d. for professional charges, and £248 to pay the fees of Parliament and for other [persuasive?] disbursements), and £871.16s.10d. for the Scottish solicitor who handled the negotiations. This latter sum included £376.3s.6d. for "cash disbursements." It will be observed that these figures do not balance, but they have been carefully transcribed from the Perthshire General Meeting Minute Book, 1820-1878, which is now in the custody of the County Clerk, Perth. Also, see below, pp. 248-249.

trusts from Parliamentary fees, to abolish committees on the petitions for renewals, and to extend the usual term of the bills from twenty-one to thirty-one years.[31] Parliament waited until 1831 to act on these proposals, but in that year abolished only its own fees for the consideration of renewal bills. The other provisions of Littleton's motion were never put on the statute books.

There were other problems equally vexatious to the trustees and fully as wasteful as the periodic necessity of renewal. Surveyors were almost invariably inefficient. Appointed annually and in rotation, they seldom learned even the rudiments of what has in the twentieth century developed into a highly specialized branch of civil engineering. Realizing that their tenure of office would be brief, they were little interested in their work, and they fully comprehended that soon they would be seeking to avoid the duties they were temporarily compelled to impose on others. Furthermore, until there developed the practice of employing full-time surveyors, the temporary amateur was obliged to maintain his own farm or business concurrently with his work on the roads.

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31 Littleton's remarks and resolutions are recorded as outlined above in Hansard, Parliamentary Debates, N. S., XVIII, 1445-1450 (15 April 1828).



CAST-IRON MILESTONE AT LOWER DICKER

/53 MILES TO BOW BELLS/

The users of the road, despite the limits placed on weights and the occasional introduction of the hated weighing machines, violated every law of the road -- harnessing too many horses, loading excessive weights on the wagons, refusing to conform to the regulations concerning broad wheels, evading toll bars when possible by circuitous gyrations over back roads or open meadows. Moreover, statute labor was refused or circumvented as the opportunity presented, which was not infrequently.

Toll gatherers were sometimes corrupt, engaging with stagecoaches and farmers for fraudulent reductions in tolls. Many were surly by day and resentful when awakened by late travelers at night, as indicated in F. William Cock's account of tollgate keepers who did not like to be awakened after eleven o'clock in the evening.[32]

Double rates for winter travel were sometimes charged, as in East Sussex until at least 1851.[33] Royalty and certain other privileged classes, including farmers engaged in their occupation and Anglican priests, were exempted from tolls, much

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32 Cited in "Tollgate Keepers and Turnpikes," Notes and Queries, CLXXV (16 July 1938), p. 49.

33 Ernest Straker, "Turnpike Trusts in East Sussex," Sussex County Magazine, XI (July 1937), p. 427.

to the vexation of the less fortunate classes. Especially irritated were the dissenting clergymen who in this mundane matter, as well as in other spheres, were the object of discrimination. Methodist circuit riders suffered from the necessity of the payment of frequent tolls,[34] and the Baptists and other nonconformists were under the same obligation. Some acts exempted Anglican communicants en route to Anglican services, but required full exactions of dissenters and of anyone proceeding to a service outside his parish. In 1821, however, there was enacted a general law which included relief from payment of tolls for anyone traveling to his regular place of worship, even if his destination was in another parish.[35] Frequent litigation resulted over this religious issue both before and after 1821.[36]

Disputes over the evasion of or the refusal to pay fines were not infrequent. One W. G. Nash was charged with refusing to pay threepence toll at the Sparrow's Herne Turnpike Gate at Watford. Mortimer, the toll collector, proved his case before

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34 Wesley F. Swift, "Turnpikes and Tolls," Proceedings of the Wesley Historical Society, XXII (1939-1940), pp. 84-91, presents this problem in a very scholarly manner.

35 Act 3 George IV, cap. 126.

36 Swift, loc. cit. For an interesting account of the petty vexations of the system, see the quotation from Barham cited below on pp. 308-309.

the court, and Nash was required to pay the required threepence together with a fine of thirteen shillings![37]

The turnpike trustees, or commissioners, moreover, comprised another weak link in the system. Occasionally they abused their public responsibility by protecting the beauty of their estates even if the public was substantially injured by the diversion of a turnpike road in a most disagreeable and incommodious manner. They sometimes gave too little attention to their responsibilities as inspectors and auditors, and again proved unduly meddlesome -- a failing of which McAdam was often painfully aware.[38] Some banker-trustees or their partisans were more interested in loaning a trust funds at exorbitant rates of interest than in preserving the integrity of its finances. Or in still another category were those great landowners "who feared that if markets in their neighbourhood were rendered accessible to distant farmers their estates would suffer."[39]

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37 Broadwater's Bucks Advertiser, 2 September 1865, as quoted by A. L. Humphreys in Notes and Queries, CLXXX (22 March 1941), p. 212.

38 See below, p. 424.

39 W. H. R. Curtler, A Short History of English Agriculture (Oxford, 1909), pp. 221-222.

Thus with British road administration unduly decentralized, with ignorant surveyors in charge of the construction and maintenance of the roads, with shortsighted and incompetent management controlling the business of the roads, and with huge sums annually going to defray the expenses of collecting the tolls and securing new bills, it is no wonder that the roads of the kingdom were almost always bad, and indeed quite frequently impassable. It would appear perhaps redundant to recite the evidence from primary sources as to the badness of British roads prior to the nineteenth century, for the disgust was well-nigh universal, and the facts about the conditions of the roads are well known.

The careful secondary sources -- Jackman,[40] the Webbs,[41] Gregory,[42] Smiles,[43] Treveleyan,[44] Boumphrey,[45] and others --

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40 Op. cit.

41 See The Story of the King's Highway; Statutory Authorities; and English Local Government from the Revolution to the Municipal Corporation: The Parish and the County (London, 1906).

42 Op. cit.

43 Op. cit. Smiles is not so careful a scholar as the others mentioned, but his work is helpful.

44 George M. Treveleyan, English Social History (London, 1942) and British History in the Nineteenth Century and After (1782-1919), 2nd. ed. (London, 1937).

45 Geoffrey Boumphrey, British Roads (London, 1939).

devote much of their narrative to a lament about the inferiority of British roads prior to McAdam and Telford.

Although private carriages were introduced in England early in the sixteenth century, stage wagons later in that same century, hackney coaches in the reign of James I, and stage coaches by perhaps 1640,[46] the reform in the science of road-making by no means kept pace with the improvements in the construction of vehicles. Samuel Smiles declares that in some of the "older-settled districts" of England the roads were worn eight to ten feet deep, channeling roaring torrents in time of heavy rains. Beacons, he further notes, were often erected to guide travelers who were forced from the beaten tracks by the quagmires.[47] Macaulay in his famous Chapter III is especially vivid when describing English roads in the seventeenth century.[48] Even by the eighteenth century roads were little improved, despite the introduction of the turnpike system in 1663. Boumphrey, in fact, alleges the roads were worse than ever during the first half of the eighteenth century, although by 1750 reform was

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46 Many writers discuss the introduction of these various vehicles, but Jackman, op. cit., I, pp. 109-143, is by all means the most careful analyst.

47 Op. cit., I, pp. 160-161.

48 Thomas Babington Macaulay, The History of England from the Accession of James II (New York, 1880), I, pp. 240-248.

finally in sight.[49] Gregory also claims that roads were at their very worst in the eighteenth century, "owing to the failure of efforts at road maintenance to keep up with their increased use," and he cites the impressive and uniformly dismal testimony of Daniel Defoe, Arthur Young, Dean Swift, The Gentleman's Magazine, Sidney Smith, and Postlethwayt's Universal Dictionary to illustrate his point.[50]

Eighteenth-century Scotland, likewise, suffered from roads as bad as those in England. Samuel Smiles paints perhaps an unduly dreary picture of Scotland in this era, but he is probably accurate in describing Smollett's trip in 1739 from Glasgow to Edinburgh. Smollett, writes Smiles, saw neither coach, cart, nor wagon; and when he left Edinburgh he traveled southward to Newcastle "sitting upon a pack-saddle between two baskets,..."[51] Smiles further shows that the first stage coach to make the journey from Edinburgh to Glasgow (1749) required two days to journey the forty-four miles; in 1759 "The Fly" "contrived" to make the same trip in a day and one-half; yet the first London to Edinburgh coach (1763) required one month for the round trip![52]

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49 Op. cit., pp. 91 and 94.
50 Op. cit., Chapter XV.
51 Op. cit., II, p. 100.
52 Ibid., pp. 100-101.

Another writer has described the new road from Edinburgh to Dumfries as he saw it in 1763. It was laid with quarried stones, was very rough, and "by no means well broken, with much water remaining in the ruts after every shower." The older roads of Scotland, continued the same commentator, consisted in four or five parallel tracks, impassable in wet weather, becoming impossible "lairs /sloughs/ in which the carts or carriages had to slumper /sic/ through in a half-swimming state; whilst in time of drought it was a continual jolting out of one hold into another...."[53]

Perhaps the most reliable picture of British roads prior to 1800 may be derived from an analysis of the rates of travel in the different periods. Jackman has laboriously culled pertinent information from a great many sources, and has concluded that by riding post in the period of the later Tudors twenty-four to fifty miles per diem could be accomplished in an average day, provided fresh horses were available every ten or twelve miles. Without frequent changes the rate of travel was drastically reduced proportionately. Jackman found that stagecoaches in the mid-seventeenth century averaged no more than thirty

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53 George Robertson, Rural Recollections (Irvine, 1829), pp. 36-38. Robertson's depiction of Scottish coaching is very similar to that of Samuel Smiles, cited above.

miles per diem, but attained sixty to seventy miles per diem in the summer; in the eighteenth century coaches could rarely exceed forty to fifty miles per diem; but by 1830 the average speed of the mail and other fast coaches was between nine and ten miles per hour, which was easily twice as fast as that attained eighty years before. The longer journeys in 1830 between the great termini required only from one-third to one-fifth of the time required in 1750![54]

The rapid increase in the rates of travel after 1750 is due to several significant factors. Road legislation after 1750 was increasingly more vigorous and farsighted, and undoubtedly paralleled Great Britain's rapidly expanding manufacturing and commercial life, which was in turn due to her rapid acquisition of colonies and the multiplying successes of her foreign trade. Concurrently, agriculture commenced a noteworthy transformation. This quickening of the economic pulse resulted in multiplied efforts to develop a more efficient domestic transport -- thus the Duke of Bridgewater and James Brindley pioneered the building of the modern canals, John Palmer sought to render more rapid and safe the delivery of the

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54 Jackman, op. cit., I, pp. 134-138, 335-339, and II, Appendix 5, for a tabular description covering the entire history of coaching.

mails, and there commenced the long and arduous process of improving the network of British roads and highways.

During the last half of the eighteenth century the number of turnpikes grew more rapidly than ever before. In 1767 there were enacted the first general highway act[55] and the first general turnpike act,[56] each repealing all former statutes pertaining to the general regulation of both highways and turnpike roads, and each reenacting such provisions as were deemed expedient. These laws also provided for certain regulations, such as the encouragement of broad wheels. Further modifications in the laws were made in 1773 when both the general acts of 1767 were repealed and replaced with slightly altered statutes.[57]

It was at this juncture that they appeared in Great Britain, and also in France, the first surveyors who deserve the title of "engineers:" John Metcalf in the former country, Pierre Tresaguet in the latter.

John Metcalf, better known as "Blind Jack of Knaresborough" (Yorkshire), was born in 1717, the son of poor laboring people. Although he was blinded at the age of six, he grew to strong

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55 Act 7 George III, cap. 40.
56 Act 7 George III, cap. 42.
57 Acts 13 George III, caps. 78 and 84.

and resolute manhood. This remarkable man became an excellent horseman, huntsman, swimmer, coachman, and trader, and learned to know his own neighborhood and its roads in minute detail. In 1765 he decided to take up roadmaking as a business, and beginning with a contract for three miles of turnpike road, he gave such satisfaction that one engagement quickly succeeded another. He built many roads in Yorkshire, Lancashire, Derbyshire, and Cheshire, and constructed numerous culverts, retaining walls, and bridges. At one time he had four hundred men working under his direction, employed on a nine-mile road and working at six different locations. In all Metcalf built some 180 miles of turnpike road. His principles involved the use of bundles of heather as a sub-foundation when the road traversed a boggy area; he constructed roads (like Telford later, but unlike McAdam) on a foundation of large stones; he provided for proper drainage, elevating and ditching the roads; he sought to guarantee a smooth, convex surface; and he regularized the administration of the trusts by whom he was employed, devoting all his time and ingenuity to the task.[58] Thus was Metcalf

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58 See Metcalf's autobiography, Life of John Metcalf (York, 1795, and Manchester, 1826); also, Smiles, op. cit., I, pp. 74-94; Jackman, op. cit., I, pp. 266-268; Gregory, op. cit., pp. 222-223, and the Dictionary of National Biography, XIII, pp. 302-303.

perhaps the first in Great Britain to apply scientific principles to the task of roadbuilding.

Contemporaneously, Pierre Tresaguet (1716-1796) was performing a similar function in France. Associated with the more famous Turgot, Tresaguet executed numerous feats of highway engineering between 1764 and the French Revolution in the area of Paris and Limoges. His methods were outlined in a memorandum he presented to the Assembly of Bridges and Roads in 1775. The chief features of his system of road construction involved the formation of a convex foundation of large stones placed on edge, on which was deposited a layer of coarse rubble strongly wedged with a "beetle" (rammer), and finally surmounted with a shallow stratum of smaller stones "broken to the size of a nut." Tresaguet quickly saw the absolute necessity of adequate drainage and the continual care of the road by trained "roadmen."[59]

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Even greater emphasis was placed on the desirability of improved roads in the early years of the nineteenth century, as parliamentary select committees were almost annually appointed

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59 "Pierre Tresaguet," La Grande Encyclopédie (Paris, 1886-1902).

to investigate the conditions of the roads and to recommend appropriate measures for their improvement. It was to one of the earliest of these committees that McAdam presented his first communication on roads (1810-1811).[60] Thomas Telford effected numerous reforms in the Highlands of Scotland and elsewhere between 1801 and 1834;[61] McAdam obtained his first appointment in 1816, and by 1825 was famous throughout the world as the "Colossus of Roads."[62] Consolidations of groups of trusts were effected on the Holyhead Road after 1815, and by 1827 there was formed a Metropolis Turnpike Trust of fourteen important trusts north of the Thames and in the environs of greater London.[63] A step toward the nationalization of the roads was taken by a general Turnpike Act of 1822 which codified all the laws pertaining to the roads;[64] and in 1835 a similar law relating to highways was enacted, effectuating a plea McAdam had voiced for many years regarding the elimination of all restrictions on weights and wheels. This latter measure also abolished statute

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60 "Report from the Committee on Highways and Turnpike Roads in England and Wales," Parliamentary Papers, 1810-1811, III (240), Appendix C, no. 1. Also, see below, pp. 198-210.

61 See below, Chapter XII.

62 See below, Chapters VIII and IX.

63 See below, pp. 318-322.

64 Act 3 George IV, cap. 126. This act was amended in 1823 by Act 4 George IV, cap. 16.

labor, and substituted therefor a general rate.[65]

Concurrently, Parliament was demanding annual reports from all turnpike trusts.[66] It was learned that in 1814 there were in England and Wales 114,864 miles of public highways, of which 19,791 were turnpike or paved; and that there was expended on these turnpike and paved roads in 1814 the sum of £1,454,503.[67] It was further discovered that in 1846 there were 1,103 turnpike trusts in England and Wales, possessing assets of £413,816, total debts of £8,424,356, total unpaid interest charges of £1,441,983, total income of £1,384,498, and having a total expenditure of £1,378,352.[68]

This obnoxious, expensive, and wasteful system of road management did not exist without frequent criticism and occasionally an outburst of public indignation. At least as early as 1727-1735 there were serious disorders, following which the penalty for molesting toll gates was raised from three months hard labor and a public whipping to death without benefit of clergy. There were riots in Bristol in 1749 in which turnpikes

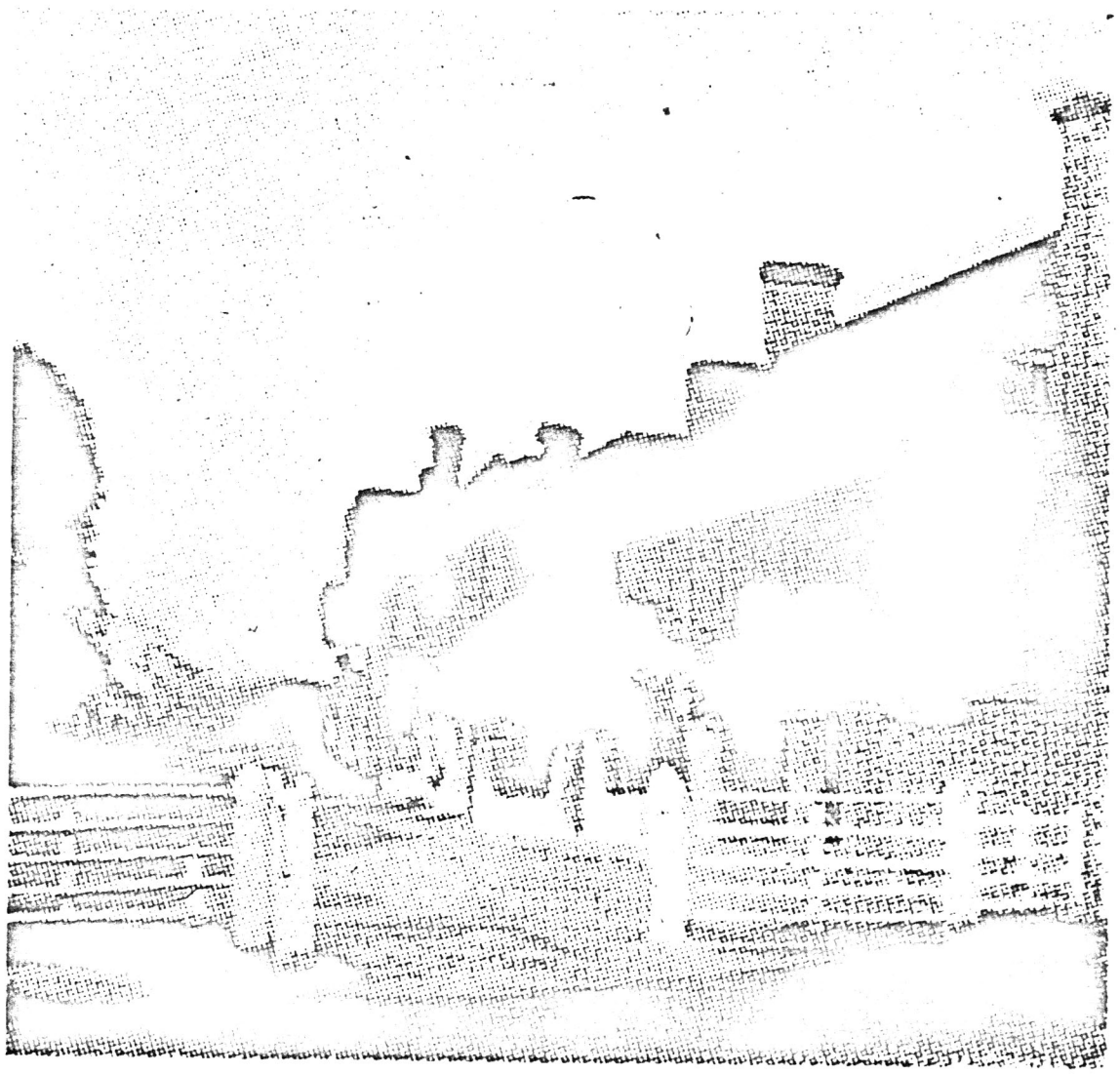
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65 Acts 5 and 6 William IV, cap. 50.

66 By command of Act 55 George III, cap. 47.

67 This summary was collected from 16,955 returns. See "The County Totals...," Parliamentary Papers, 1818 (431) XVI. 255.

68 "Return Showing the Total Receipts, Expenditure, and Debts...," Parliamentary Papers, 1847-1848 (492) LI. 355.



BEFORE THE MOTOR CAME

The old toll gate at Lindfield, Sussex from an old print

were demolished, and only by military might was the uprising quelled. There were disturbances likewise in Leeds.[69] In the rioting preceding the Great Reform Bill toll gates were wrecked in Bristol. The most serious outburst, however, occurred in Wales during the economic distress of the mid-eighteen forties. Numerous bands of men styling themselves "Rebekahites"[70] roamed the countryside for several weeks destroying toll bars and burning the adjacent houses of the collectors. Parliament became alarmed and created a commission to investigate the disturbances, which soon subsided.[71]

The near-bankrupt trusts of the mid-nineteenth century, however, were not to survive the Age of Victoria. A select committee finally condemned the entire system of toll-taking as "unequal in pressure, costly in collection, inconvenient to the public, and injurious as causing a serious impediment to intercourse and traffic," and in 1878 Parliament decreed that

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69 George Fordham, "The Roads of England and Wales and the Turnpike System," History Teachers Miscellany, V, 1927, p. 91.

70 Obviously the term derives from Genesis 24:60, which quotes the family of the departing Rebekah as saying, "...and let thy seed possess the gate of those which hate them."

71 For a full discussion of these riots see the "Report of the Commissioners of Inquiry for South Wales," Parliamentary Papers, 1844 (531) XVI.77.

no further charters would be granted. The Public Health Acts and the Local Government Acts in the latter part of the century entirely destroyed the turnpike and parish systems of road administration, and on 1 November 1895 the last toll was collected on a public turnpike in Great Britain.

CHAPTER VIII

THE BRISTOL TURNPIKE TRUST

McAdam's first known connection with the Bristol roads was in 1806. On 5 May of that year, King George III gave his assent to "An Act for Amending, altering, and enlarging the powers of several Acts, passed for paving, pitching, cleansing, and lighting the streets and other places within the City of Bristol and Liberties thereof."[1] Under the terms of this statute, the mayor and aldermen of Bristol were to appoint in each parish two substantial householders, to be "styled Commissioners for paving, pitching, cleansing and lighting the City of Bristol and Liberties thereof." These commissioners constituted something of a road trust for the city. They convened each Tuesday at the Guildhouse. They were empowered to appoint a treasurer, clerks, surveyors, and other officials. Broad powers were granted them for the performance of their duties. Probably early in 1806 McAdam was elected to this minor civic position.[2] Unfortunately there are no surviving records of the commission, and no other evidence exists relating to McAdam's work as a paving commissioner.

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1 Act 46 George III, cap. 26.

2 John Latimer, The Annals of Bristol in the Nineteenth Century (Bristol, 1887), p. 65.

There is ample evidence, however, of McAdam's early and intensive preoccupation with the subject of improved road construction and upkeep. His services in Ayrshire have been noted, and his extensive travels in search of better road-building methods. And it is apparent that his first Bristol office in connection with roads was as a paving commissioner. But it is entirely possible that McAdam also served on the Bristol Trust in the first decade of the century. Here again, however, a specific date can not be assigned, for the records of the Bristol Turnpike Trust have been destroyed or otherwise lost, and the extant papers of McAdam and his contemporaries do not date his initial connection with the trust. The earliest documents available relating to McAdam's participation in highway engineering problems tell the complete story of his presentation of a Memorial to Sir John Sinclair's Select Committee of the House of Commons on Highways and Turnpike Roads in 1811.[3]

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Sir John Sinclair, Bart., talented and versatile Scottish Member of Parliament for Caithness, had been responsible for

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3 Parliamentary Papers, 1810-1811 (240) III, Appendix C, no. 1.

the establishment of the Board of Agriculture in 1793, and had served as its first president. He supervised the work of the Board until 1813, and in Parliament and out, vigorously championed the cause of agricultural improvement. He wrote and lectured with amazing vigor in effecting his purpose. Sinclair was aware that the rural population, perhaps even more than the new urban interests, was in dire need of improved highways. He therefore in 1811 moved in the House of Commons the appointment of a Select Committee to take under consideration the laws of the kingdom concerning public highways and turnpike roads. His motion carried, and he was named chairman of the committee.

Some months prior to this action by Parliament, according to Sinclair, McAdam had written to him as President of the Board of Agriculture on the subject of roads.[4] The gist of McAdam's letter was that the general system of roadmaking as practiced throughout the kingdom was faulty and unduly expensive. Sinclair was interested in McAdam's views -- "highly pleased," he said -- and resolved to bring them to

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4 The Correspondence of the Right Honorable Sir John Sinclair, Bart... (London, 1831), I, p. 462. Sinclair, who edited his own correspondence, did not print this particular letter, but discussed it at some length.

the attention of Parliament. In this manner Sinclair became the first of a numerous group of influential men whose patronage McAdam enjoyed during the latter twenty-five years of his life. Without their aid his concepts of road construction and trust administration would in all probability never have become the model of Great Britain and of much of the western world. Never backward, rather erring often in undue self-confidence and audacity, McAdam's letter to Sinclair presumed to criticise authoritatively the roadbuilding practices of the entire island in a manner pleasing to the eminent parliamentarian. In later years, when both Sinclair and McAdam were old men (Sinclair was but two years McAdam's senior), the two chanced to meet in Edinburgh at the Albyn Club. Sinclair failed to recognize McAdam, but McAdam introduced himself as one who was greatly indebted to Sinclair, and was highly pleased to see him again. Wrote Sinclair of the incident,

...I told him that I well remembered corresponding with him when I was chairman of a committee on highways; and that he had transmitted to me valuable information, which I had much pleasure in recommending to public notice in the report. I added, at the same time, how much it gratified me to hear from all quarters of the magnificent improvements he was carrying forward in the roads all over the kingdom; not only on the great lines of communication, but also upon byways and lesser intersections. Upon this Mr. Macadam said emphatically, 'It is owing to you, Sir John, that these improvements were ever made. The fact is, that at the time you applied to

me for the information you refer to, I had resolved to give up all concern with these matters; but the countenance and encouragement I received from you revived my energy, and I determined, in spite of all opposition, to persevere. I have since thriven beyond my utmost hopes; but it was altogether owing to the encouragement you gave me at a critical moment that my schemes were not abandoned!'[5]

The tone of these remarks is very typical of the pleasantries often exchanged by two aged gentlemen; but it may well have been that McAdam, already in his fifty-fifth year at the time (1810), and having devoted more than twenty years to the consideration of his hobby of roads, spoke with accuracy to Sinclair at the Albyn Club. The friendly encouragement he received in 1810-1811 may have meant the difference between turning back and persevering.

Upon appointment as chairman of the Committee on Highways in 1811, Sir John Sinclair resolved to bring McAdam's views as expressed the previous year before the committee. According to his personal narrative, he felt that it would be wise to rearrange and condense McAdam's views and theories; whereupon he rephrased them more attractively and inserted them as "Observations on the Highways of the Kingdom" in a prominent position in the appendix to the report of his

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5 Rev. John Sinclair, Memoirs of the Life and Works of the Late Right Honorable Sir John Sinclair, Bart... (Edinburgh, 1837), II, pp. 96-98.

committee, where "it attracted much public attention."[6] This parliamentary approbation, concluded Sinclair, further encouraged McAdam to persevere in his researches, with the result that five years later the Bristol Trust appointed him General Surveyor, and shortly thereafter the McAdam system was in vogue throughout much of the kingdom.

The Memorial of 1811,[7] although revised in its literary presentation by Sinclair, is clearly the work of McAdam. More than any other available evidence, this document substantiates McAdam's repeated claims before Parliament in later years that he had for many years carefully studied the problems of road construction and repair, and had become thoroughly acquainted with current practices through extensive travel. His judgments reveal that he was not a novice; that far more than any amateur who might idly pen a few recommendations to a Member of Parliament, he was well-informed and advanced in his concepts and recommendations. Contrary to current popular opinion, he contended that the crying need was not for the enactment of further regulatory legislation respecting carriage and wheel construction, nor the further

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6 The Correspondence of the Right Honorable Sir John Sinclair, Bart..., loc. cit. McAdam's "Memorial" is given first place among five sets of "Observations."

7 Dated 13 May.

limitation of weights carried. What is urgently required, he declared, is the application of scientific principles to the construction of highways and roads. Thus, "I propose to do what never yet has been done, to consider the making the form and surface of roads scientifically." His doctrine decreed that as the Sabbath was made for man, and not man for the Sabbath, so roads should be made to accommodate the vehicle, not the vehicle to suit the road. This concept, elementary and basic though it seems in the twentieth century, was revolutionary in the first decade of the nineteenth, and when iterated and reiterated by the tenacious McAdam, constituted one of his most fundamental contributions to roadmaking science.

For twenty-six years, claimed McAdam in the 1811 "Memorial," he had studied British roads. His conclusions were twofold: first, "That the present very bad condition of the roads in the kingdom, is owing to the injudicious application of the materials with which they are repaired, and to the defective form of the roads;" and second, "That the introduction of a better system of making the surface of roads, and the application of scientific principles, which has hitherto never been thought of, would remedy this evil." The object to be attained, he insisted, is a road "smooth, hard, and so flat as

that a carriage may stand quite upright."[8] A road surface is best formed of small, artificially-broken stone, applied without any admixture of earth or other "binder," and about ten inches in depth. A road so formed, he averred, will prove to be smooth, hard, and durable.[9]

In turn McAdam subjected the roads of England to critical analysis: those in the London area were made of gravel mixed with earth, and were concave, thus unserviceable and expensive; Essex, Kent, and Sussex had ample supplies of flint, but this excellent material was incorrectly applied; except for some miles near Bridgewater, in Somerset, the fine limestone of Gloucester, Somerset, Wiltshire and adjacent counties was injudiciously applied; in Staffordshire and Shropshire the bad roads resulted from the use of "huge, rounded pebbles," some ten to twelve pounds in weight, which were mixed with sand; while in Devon, and in most parts of northern England and southern Scotland the very best roadbuilding material (whinstone[10]) was to be found, yet the roads there were in a

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8 Current practice called for construction of extreme convexity. McAdam later decided that the best construction required "a rise of three inches from the centre to the side" of a road thirty feet wide. Today this would be expressed as "one in sixty."

9 For the remainder of his long life, McAdam insisted on these simple but basic principles.

10 A very hard, fine-grained, dark-colored rock, such as dolerite and basalt trap.

deplorable condition for want of scientific methods of construction. A second happy exception, McAdam noted in this narrative of ignorant and extravagant road construction, was a small area in Westmorland, where excellent roads were to be found.[11]

Now to repair roads, continued McAdam, the universal practice is to expend a large sum of money, believing the mere outlay will secure improvement. This is a wasteful and absurd practice: the indiscriminate dumping of large quantities of ill-assorted and unwieldy stones, almost invariably mixed with earth, does more harm than good. Road materials do not usually wear out; rather they "are displaced by the action of the wheels of carriages upon stones of too large a size," with the result that carriages can not pass <u>over</u> the road, but at almost every revolution the wheels encounter awkward objects which must either give way or be joltingly surmounted. "In either case the road is injured, and the injury will be great in the exact proportion of the number, and the

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11 McAdam later identified this as "the great road north and south of Kendal," Westmorland. The records of this trust, the Heron Syke-Kendal-Eamont Bridge Turnpike Trust, have unfortunately been destroyed, according to H. B. Greenwood, Clerk of the Peace and Clerk to the County Council of Westmorland (letter to the author, 31 May 1949).

size of the obstacles.... But a carriage of any construction of wheels or body, or of any weight, will pass over a smooth surface without injury to that surface." McAdam was hammering home his major premise.

More specifically, reasoned the memorialist, no one seems to have determined upon the optimum size of road stone. Contracts variously stipulate "the size of a hen's egg," "half a pound weight," and other unsatisfactory specifications. "The size of stone of which a road is made must be in due proportion to the space occupied by the point of contact of a wheel of ordinary dimensions on a smooth level surface. This point of contact will be found to be, longitudinally, about one inch, and every piece of stone put into a road which exceeds an inch in any of its dimensions is mischievous."[12]

Most roads are susceptible of improvement along these lines without applying additional material. The road may merely be "lifted"[13] to a depth of ten inches, and the stone uniformly broken (with the use of hand tools, of course) to the one-inch maximum dimension, at a cost of not more than 6d. per square yard. And once this operation has been performed,

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12 McAdam later, after personal experience in roadmaking, changed this specification to a two and one-half inch maximum.

13 A contemporary term meaning to break or dig up a road, preparatory to resurfacing operations.

no additional expense need be incurred for several years except a smoothing operation carried out two or three times within the first fortnight after the lifting has been accomplished. Thereafter the road will be smooth and well-nigh indestructible. -- These claims, both with regard to costs and durability, were undoubtedly excessive, but McAdam's well-formulated theories were to prove practicable and inexpensive, and representative of advanced thought on the subject of highway engineering.

Yet McAdam was not satisfied with a mere verbal presentation of his case. To test his scheme, he recommended experiments on stretches of one mile each in the London area, Gloucestershire, Staffordshire, Kent, and in the north of England. If Parliament should make these tests, and, finding his "system" less expensive and more efficient, it should require all trustees and way-wardens to adhere to it.

It is important to note that McAdam's emphasis in the Memorial of 1811 was almost entirely on principles of physical road construction and repair, although he did anticipate opposition from conservative trustees and surveyors, and he lamented that "Surveyors are elected /only/ because they can measure; they might as well be elected because they can sing; but they are more commonly elected because they want a

situation; and this is the source of much of the evil we are now compaining of." In later years, in his books and in public testimony before parliamentary committees, his emphasis shifted to the problem of personnel and financial administration, although he never really de-emphasized the necessity for adhering to his "scientific" principles of construction and maintenance.

The Select Committee, of which Sir John Sinclair was the chairman, was not in a position to do more than endorse McAdam's remarks: this it cautiously did. Its recommendations, however, followed the historic procedure of compromise. While specifically praising the views of McAdam, the committee urged Parliament to reduce the maximum allowable weight-load from eight tons to six and one-half, more strictly to enforce regulations concerning wheels, straight axles, and flat felloes, and to establish other restrictive rules governing vehicles and weights. Parliament was to wait another decade before presuming to interfere seriously with the local administration of turnpikes.

The question naturally arises, "Was McAdam an original thinker, or did he copy the procedures of some predecessor or contemporary?" An absolutely definitive answer will probably never be given; but it can be satisfactorily established that

McAdam's greatest contributions to rapid and comfortable transportation during this critical era of economic transformation lay in his powers of organization and popularization. Most of the views urged upon the Select Committee of 1811 by McAdam were culled from his personal observations, possibly extensively from the Westmorland trust he admired so greatly, and the Bridgewater Trust. Edgeworth's influential Essay was not published until 1813,[14] and it was not until the colorful coaching era -- initiated largely by McAdam and his colleagues -- that many pens were directed to the important topic of improved roads. Thomas Telford, whose later fame as a builder of roads approached that of McAdam (although he never was able to captivate public imagination), was in 1811 only making trial surveys of the Holyhead Road, the construction of which he commenced in 1815; and his Highland roads were then in the early stages of construction. James Paterson of Montrose, although credited by Jackman with the origin of many of the ideas set forth by McAdam,[15] did not publish his findings until 1819,[16] and was later forced to retract some bitter

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14 Richard L. Edgeworth, An Essay on the Construction of Roads and Carriages (London). A second edition was published in 1817.

15 William T. Jackman, The Development of Transportation in Modern England (Cambridge, 1916), I, p. 276.

16 James Paterson, A Practical Treatise on the Making and Upholding of Public Roads (Montrose, 1819).

accusations he made when he learned that the first edition of McAdam's Remarks on the Present System of Roadmaking antedated his own work by three years.[17] William Lester, likewise credited by Jackman with the origin of principles adopted by McAdam,[18] was unable to persuade the Select Committee of the House of Commons on 7 June 1823 that McAdam was guilty of plagiarism.[19] Furthermore, McAdam's sole British predecessor of note in the field, the colorful "Blind Jack" Metcalf of Knaresborough, Yorkshire (1717-1810), although sound in regard to drainage, camber, and other principles, did not have the well-rounded and coordinated system later developed by McAdam, and his operations were never widely publicized. Nor did McAdam borrow from the Frenchman Tresaguet, whose methods were clearly dissimilar. The conclusion seems obvious, that McAdam's concepts as initially outlined to the Select Committee in the spring of 1811, were originated by him as a balanced, coordinated plan,

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17 Apparently neither Paterson nor Jackman had heard of McAdam's "Memorial" of 1811. See below, Chapter XII, for a discussion of Telford and Paterson.

18 Jackman, loc. cit.

19 Parliamentary Papers, 1823 (476), V. 53, "Report of the Select Committee on Mr. M'Adam's Petition,..." Lester claimed to have published a volume on the subject in 1803 and 1804, but he could not deliver a copy to the committee, nor is any work by Lester available in the leading libraries of England or Scotland.

whereas many of the component parts of the "system" were undoubtedly collected from a variety of sources.

In summary, therefore, the basic features of good road construction as promulgated by McAdam in 1811 were these:

1. accommodate the road to the traffic;
2. standardize road engineering procedures;
3. form the road surface of uniformly small, artificially-broken stone of the best quality available, unmixed with sand or earth;
4. construct the road perfectly flat, uniformly one foot thick, and build it on the natural subsoil without special foundation;
5. prepare carefully-phrased and specific instructions for all contractors and subordinates;
6. engage only competent surveyors, who are scrupulously honest;
7. submit turnpike road administration to a mild yet effective measure of parliamentary control.

On each point above, McAdam's views matured between 1811 and 1816. Indeed, until his death he varied his standard methods of operation from year to year. These seven rules, however, with minor changes, remained basic to the famous McAdam system. They indicate that long before his initial appointment as a professional surveyor, McAdam had formulated a clear set of plans suitable to meet the requirements of faster and more pleasant coaching.[20]

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20 See Appendix A for McAdam's detailed "Directions for Repairing a Road," published first in 1811, and again in 1819 "with additions and alterations, deduced from actual practice during the last three years." One variation suggested to him by experience was to reduce the depth of the stone on the road from twelve to ten inches.

Informed persons, although few in number, give great credit to McAdam for his innovations and administrative ability. The Webbs, for example, whose history of English roads is unquestionably without a peer, pay high tribute to him. Like John Howard, they say, McAdam "had a passion for concrete investigation." After extensive travels and careful investigation, they record, it is remarkable that

> all this mass of technological and administrative detail was absorbed and retained by his intensely practical intelligence.... But eventually there emerges (when McAdam was past middle age)... a new set of assumptions and maxims as to the object and methods of road-making, which, like John Howard in prison administration, were destined to be revolutionary in their results.[21]

It has been noted that in 1814 England and Wales boasted a total of 114,864 miles of public highways, of which 19,791 miles were either turnpike or paved, or both. The sum of £1,454,503 was spent annually to maintain these roads in a constantly irritating and unsatisfactory condition.[22] This expenditure of twelve pounds thirteen shillings and threepence per mile for all roads in England and Wales, represented an

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21 Sidney and Beatrice Webb, The Story of the King's Highway (London, 1920), English Local Government Series, pp. 171-178.

22 See above, p. 192.

astounding sum to the politicians and public of that day, especially in view of the fact that five-sixths of the roads were neither turnpike nor paved, and were thus more dreadful than the one-sixth which received slightly better attention. However, the expenditures of the more than 1,100 turnpike trusts in the two southern principalities of the United Kingdom must have been greatly in excess of the average for all roads.

The largest trust and one of the most wealthy in England and Wales during the first quarter of the nineteenth century was the Bristol Trust. The nineteenth-century form of this trust was created by an Act of Parliament in 1779,[23] and in 1797 extended for the usual twenty-one years.[24] The Bristol Turnpike Trust embraced 149 miles of road, only a short length of it paved, in the environs of the busy city of Bristol. In most respects the Bristol Turnpike Act of 1797 is similar to scores of others passed during the same era. It "de-turnpiked" several "lines of road," provided for several new roads that would be "convenient" and of "public utility," authorized tolls, recited the qualifications for trustees and established

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23 Act 19 George III, cap. 116.
24 Act 37 George III, cap. 178.

rules of procedure for them, and repealed the exemption on grain wagons.

Like most trusts operating under the wasteful and confused turnpike system, the Bristol Trust in the early years of the nineteenth century found itself in stringent financial difficulties. At a general meeting of the trust held 7 September 1812, a resolution was passed appointing a committee, to consist of the several treasurers (of the divisions of the trust) and five other commissioners, which was directed to investigate the financial condition of the trust. The committee was given authority to inspect the books of the trust from 1802 onward in order to determine the total amount of annual income and expenditure, and the debt as of 24 June 1812. Most important, the committee was ordered to present with their report a recommendation as to the best measures of liquidating the debt and preventing its further accumulation.[25]

Chiefly because of the general obscurity of the accounts, the committee did not report to the trust until 6 March 1815.[26]

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25 See Appendix No. 1 to Appendix No. 3, pp. 88-89, of McAdam's Observations on the Management of Trusts for the Care of Turnpike Roads... (London, 1825), hereafter cited as Observations.

26 McAdam printed the entire report as Appendix No. 1 in his Observations.

The 3,300-word report represented the financial situation as critical, with no remedy short of the drastic curtailment of all permanent improvements and the erection of additional toll gates charging full tolls on all roads where "extra" gates had not already been erected. As closely as it could estimate (the accounts of one district could not be found!), the debt which in 1802 stood at £22,857 had increased at the rate of approximately £1,000 per annum, and stood in June 1812 at the robust total of £34,565, exclusive of any estimate of the debt of the delinquent Winford district, which, according to the later estimate of the Clerk of the General Meeting, totalled £10,400.[27] The debt of the Bristol Trust in 1812, therefore, amounted to £44,965, or £301.7.6 per mile.

Expenditures by the Bristol Trust were likewise quite high, increasing from £7,919 in 1802 (exclusive of the Winford Road) to £12,748 for the fiscal year ending in June 1812. The mounting debt during the period was caused by deficit spending.

The committee faced the issues squarely. It declared the deficit spending must cease, and the debt either paid in

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27 Ibid., pp. 54, 55.

full or greatly reduced and controlled. Consequently, the committee recommended that improvements of a permanent nature be severely curtailed and that additional toll bars be set up. The committee advised that the "five per cent fund"[28] be activated, that the system of repairing roads by contract be extended, and that a new, centralized, and modern system of accounting and control be established. To effect this last recommendation the committee suggested the foundation of a central office, presided over by a secretary or clerk, with extensive financial and administrative powers.

On two points there arose strong objections to the report of the committee. At a meeting on 1 May 1815, the Rev. Sir Abraham Elton, Bart., discoursed at considerable length in opposition to an increase in the tolls collected. There

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28 A plan was established by the Bristol Trust Act of 1797, directing the treasurers of the respective divisions of the trust to contribute five per cent of their net annual receipts to a central fund to be used in the event any road in the trust found itself in distress. This procedure had not been followed. It is interesting to note that the Esch-Cummins (Transportation) Act of 1920 in the United States provided for a similar plan in the so-called "recapture clause." All net railroad earnings over six per cent were to be divided equally between the carrier and the federal government, "the latter to use such earnings as a revolving fund for the benefit of weaker roads." See Samuel E. Morison and Henry S. Commager, The Growth of the American Republic (New York, 1942), II, p. 524.

was no need for an increase, he declared, and even if necessity could be shown, the proposals of the committee appeared inequitable. He likewise decried the suggestion for a highly-centralized administration.[29] On most other points he was in substantial agreement with the committee, although he defended the current accounting practices. As a substitute for the "expensive System" of management and control proposed by the committee, Elton suggested

> It would be a much wiser, more practicable, and more beneficial measure, to adopt the plan suggested by the Act itself, (and for which the Trustees have full powers,) by the appointment of some proper person as Surveyor General of all the Roads, who might devote the whole of his time to an inspection ofthe [sic] several branches and of the work in progress thereon; and to the settlement of the various charges arising therefrom, as might be considered necessary to be referred to him for examination by the several Treasurers.

This office, continued Elton, could extend the contract system of repairs by asking closed bids, and by attending both general and local meetings of the trust,the surveyor general would be enabled to keep the trustees in constant and close touch with current operations and prospective requirements.

The committee replied in moderate terms to the reasoned arguments of Elton, stating that both its initial report and Elton's observations were before the general meeting in

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29 Appendix No. 2, in McAdam's Observations.

writing, and that it would rest its case with only a few words of rebuttal, strengthening its earlier position.[30]

It is obvious that by midsummer 1815 a crisis had been reached in the affairs of the faltering Bristol Turnpike Trust. All vocal parties recognized the imminent need for economy and a more powerful, unifying executive, whether a potent, office-bound "Secretary" in the one case, or a roving general manager in the person of a "Surveyor General," vested with wide powers. The problem was clearly one of economy: how best could the debt be reduced while the important life-lines of Bristol's landborne commerce were kept in suitable repair?

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With the findings and recommendations of both the financial committee and the observations of the Rev. Sir Abraham Elton, McAdam was in substantial agreement. He heartily concurred in the committee's criticism of the bad management of the trust. He said it appears that

> ...the business relating to the Turnpikes has not been well managed, but appears always to have been in a state of obscurity and perplexity, without method or regularity; that

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30 1 August 1815. The rebuttal is printed in Appendix No. 3, McAdam's Observations.

the system of management has been radically bad, without any hear or focus to give force or effect; and that in a Trust of so much importance, no less than the receipt and expenditure of more than fourteen thousand pounds annually, a clear, correct, and efficient system ought to be observed.[31]

In later years McAdam often quoted this stinging indictment, as well as his own critical report which as a commissioner he laid before the general meeting on 4 December 1815.[32] The chief subjects of his severely critical report were the surveyors, whom he declared to be absolutely ignorant of the "strength of the road" and of their duties. They poured unbroken, expensive stones on strong roads that required only effective use of materials already on the surface, thus wasting funds equal to the sum necessary to "have given these roads a good and sufficient repair twice, which ought to have sufficed for five or six years to keep them in good order for use...." Yet he found these roads to be particularly bad. With his report McAdam presented a table showing the average sizes of road metal[33] applied in each district, e. g., seven

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31 "Report of the Committee appointed... 7th Sept. 1812...," Appendix No. 1, McAdam's Observations.

32 Appendix No. 4, McAdam's Observations, consists in a series of excerpts from this report, which relates to the roads of the Trust in June and July 1815, and which had been prepared by McAdam at the request of the General Treasurer.

33 I. e., stone used on road surfaces.

ounces on Rownham, eleven on Stapleton, twelve on Shirehampton, eighteen on Whitchurch, twenty-three on Dundry, and twenty-seven on Brislington. The depths of metal varied, he revealed, from three to seven inches on the Rownham road to seven to fourteen inches on the Whitchurch. Even correct information concerning the diverse procedures of the different surveyors could not be obtained. "The Surveyors seem never to have enquired how much labour was requisite for a given quantum of work, nor to have made any estimate of it...." In short, McAdam was extremely critical of the personal ability of the surveyors, their integrity, and of the lack of uniformity and executive control in the management of the affairs of the trust. He seemed to have felt that with disaster threatening the trust the time was ripe for decisive action on his part in order to secure control and install his own measures of engineering and administration. His motives -- if we are able to discern them -- were apparently partly altruistic and partly selfish. He was a civic-minded Bristolian, a leading member of the local turnpike trust, and zealous to effect public economies; simultaneously, he was intensely responsive to public approbation and had long desired to seize the helm of the Bristol Trust so that he might prove his engineering theories and the superiority of

his administrative genius.

McAdam's devastating report, therefore, was delivered soon after the Committee of Inquiry had revealed the confused state of affairs into which the trust had fallen. Later in life on two occasions he related how he obtained the Bristol appointment. Note his use of the verb "induce" in a memorial which he forwarded to the President of the Board of Agriculture in 1819:

> When years left the Memorialist at liberty to devote his time entirely to the public service, the Commissioners for the care of the Turnpike Roads of the Bristol District were induced, by an acquantance of many years, during which the Memorialist had acted as Commissioner in that Trust, to place their roads under his direction as General-Surveyor.[34]

The following year (5 July 1820) McAdam told a Select Committee of the House of Commons that after his researches occupying 1,920 days (up to August 1814), involving 30,000 miles travel,

> I commenced my endeavors to obtain permission to bring into practical proof the opinion my researches had enabled me to form; and I solicited that permission from my colleagues, the trustees of the Bristol district....[35]

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34 Printed in McAdam's A Practical Essay on the Scientific Repair and Preservation of Public Roads (London, 1819), hereafter cited simply as A Practical Essay.

35 Parliamentary Papers, 1820 (301) II. 301, "Report from the Select Committee on the Turnpike Roads and Highways in England and Wales."

McAdam clearly was not "drafted" by his colleagues on the Bristol Turnpike Trust in 1815-1816, although they were unanimous in giving him the appointment. He had long been preparing for such a position, and we may be certain that when his great opportunity "knocked" in 1815, with the prospect of managing the largest trust in England, he was found waiting impatiently behind the door, eager to take the job.

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An important general meeting of the Bristol Trust was held at the Bristol Guildhall on 4 December 1815. Thomas Daniel presided over the twenty assembled commissioners. With McAdam present, the chairman read his report on the state of the roads, for which the thanks of the meeting were voted him. Richard Bright, a prominent merchant and banker, and father of the famous physician, then moved

> that for the purpose of securing a more uniform, effectual, and economical system of management and repair of the several Roads included in the Bristol Turnpike Act, one General Surveyor for the Bristol District of Roads be triennially appointed. The duties of such General Surveyor to be, to attend the meetings of the Trustees for the care of the several Roads, and to report to them every thing which respects the actual state of such Roads respectively, together with his observations thereon, and opinion as to all necessary reparations or improvements; -- to form the specification of all contracts, and to carry into effect the resolutions and directions of such separate Meetings, or as the case may be, of the General Meetings of the Trustees in regard to repairs,

alterations and improvements on the said Roads; -- to attend all General Meetings; -- to give such information as may be required of him; -- to make himself fully acquainted with the state of repair and the local circumstances, in respect to materials, carriage and labour on each separate Road; -- to visit each Road in its whole extent as frequently as time will permit, and direct and superintend all the particular Surveyors appointed by the separate Meetings, and on the first Monday in March, in every year, to present a written Report to the General Meeting of the state of each separate Road under his Survey....[36]

This motion, effecting in detail the recommendations of the Rev. Sir Abraham Elton and reflecting the views of McAdam, was seconded by the chairman Thomas Graeme and passed unanimously. It was likewise enacted that the general surveyor be subject to removal "for good and sufficient cause at any Quarterly General Meeting; notice being given to that effect at a previous Quarterly Meeting." Graeme moved, and it was seconded by John Haythorne, that it be recommended to the next general meeting that the salary allocated to the new surveyor general be not in excess of £400 per annum: this motion carried unanimously. Again Graeme moved, the seconding voice being that of Charles Hill, "that Mr. John Loudon M'Adam be the Person recommended to the Office of General Surveyor, to

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36 Appendix No. 7 to McAdam's Observations contains an extract from the minutes of the meeting. Felix Farley's Bristol Journal of 23 December 1815 and the Bristol Mirror of 30 December 1815, note the transactions of the trustees on this occasion.

the next General Meeting of the Trustees...." This last motion, like each of its predecessors, was agreed to unanimously, and all that stood between McAdam and his long-cherished dream was the formal ratification of the general meeting of 15 January 1816.

The Bristol press seemed well pleased with the decisions of the turnpike trust. The Bristol Mirror commented that

> ...a total change in the management of the Turnpike Roads around this city is, we understand, about to take place, in the probable appointment of an intelligent, independent, and upright gentleman to the superintendance of them. The gentleman we allude to is Mr. J. L. M'Adam....[37]

Felix Farley's Bristol Journal was likewise complimentary to both the trust and McAdam in its remarks on 23 December. Both papers noted with approbation McAdam's chairmanship of the Committee of Delegates, which was currently engaged in controversy with the Common Council in regard to the new jail. This episode, it will be recalled, was stirring up the city even as McAdam was appointed to head the trust, and during his first six months in office he was busy with both activities.[38]

Formal appointment of the fifty-nine-year old McAdam -- prizemaster, Scottish laird, coal tar manufacturer, merchant,

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37 30 December 1815.
38 See above, Chapter VI.

and "unpaid, amateur administrator" of turnpike roads[39] -- was made on Monday, 15 January 1816. The Journal described the session as "a very full and respectable meeting of the Commissioners of the different Turnpike Roads around the city...," and congratulated the citizens on the appointment of "a gentleman of unblemished reputation, and of a considerable practical knowledge of the subject...."[40] The editor of the Journal emphasized that the office to which McAdam had been appointed would undoubtedly prove to be very important "in the political economy of the country;" whereupon he summarized in language closely parallel to McAdam's the qualities a general surveyor should embody: he must be an executive officer of

> character and consequence; he must constantly supervise the surveyors under his jurisdiction, instructing and correcting them as required; he must be a person of
>
> education, talents, and be in the status of a gentleman. Without these qualifications he can neither have the confidence of the Commissioners, nor have due weight in repressing abuses and controuling [sic] the working Surveyors...;
>
> he must have a wide knowledge of road engineering principles,

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39 Webbs, op. cit., p. 171. The Webbs consider McAdam typical of the very best among the hitherto unknown, local, public servants who skyrocketed to fame and made a vital contribution to the vigor of English local government.

40 Felix Farley's Bristol Journal, 20 January 1816.

and be able to devote his full time to the position.[41] -- McAdam, concluded the friendly editor of the Journal, meets all these qualifications, and the roads will surely be improved within a very few years "if health and strength are spared to him."

McAdam acknowledged the confidence bestowed upon him in a brief speech of acceptance. He expressed appreciation for the very flattering way in which the honor had been conferred on him, and with the use of several platitudes typical of and perhaps suitable for the occasion, he thanked the trust for their confidence. He congratulated the commissioners for their desire to effect economies in administration and at the same time to improve the roads by superior management; he promised zealously to perform the duties of his office; and he begged his fellow commissioners to remember that he was only a "humble instrument" in their hands, dependent for success on their cooperation and support. He concluded,

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41 Although not stressing these qualities in his memorial of 1811, McAdam made much over the high status of the general surveyor, and especially of the necessity for filling the position with educated "gentlemen," "fit" to deal with lordly trustees and equally capable of inspiring awe in subordinates; i. e., see McAdam's Remarks, "Part Second," pp. 17-22. McAdam gave repeated emphasis to these views when testifying before the Select Committee of the House of Commons in 1823.

> There would be much to regulate and reform; some abuses to abate; some prejudices to overcome; in all this he should require the confidence and support of the Commissioners; and where his endeavors failed of all the success he could wish, or where the cases assumed in contemplation of a business, not generallyunderstood, should be found delusive, he should require their indulgence while he might be obliged to retrace his steps. It was under the hope and expectation of this indulgence, that he ventured to enter upon an office of some difficulty, and considerable responsibility.[42]

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The year 1816 was a busy one for McAdam. Family affairs occupied a portion of his time. Although all his children were grown except Loudon (age eighteen), two daughters ("Glory," almost thirty, and Georgina, who was twenty-eight) remained unmarried and at home. The New Gaol controversy was not concluded until mid-June, and necessitated several trips to London, calling for the expenditure of a great deal of time and energy. Scottish business affairs required some attention. It is thus quite amazing that McAdam, aging and sometimes ill, was able to enter upon a new career with such vigor and enthusiasm. But not only did McAdam enter a new field: he quickly made a great success of his work, within three years extending his operations over most of England and

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42 Felix Farley's Bristol Journal, 20 January 1816.

much of Wales and Scotland.[43] He traveled ceaselessly during the next twenty years; indeed, to the very year of his death he was almost daily on the roads working for their improvement.

The McAdams, father and son Loudon, dominated the affairs of the large Bristol Trust for more than forty years. The father served as general surveyor at least until 1828, although his youngest son acted as joint-Surveyor General until his father gave up the post. Then Loudon served satisfactorily alone until his death in 1857.[44] During most of this period, the Bristol Trust was considered a model of efficient administration and effective engineering. Certainly this was the case while the elder McAdam was alive.

In later years McAdam often recounted his early successes at Bristol, adding the embellishments which naturally accrue with the passing of the years. In all his books -- although purporting to be essays on road construction and administration -- the autobiographical theme is dominant. The first eight editions of his Remarks on the Present System of Roadmaking... (1816-1824) contain remarks of indirect

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43 See below, Chapter IX.

44 Bristol Times and Felix Farley's Bristol Journal, 28 March 1857.

self-praise in the form of the dedication:

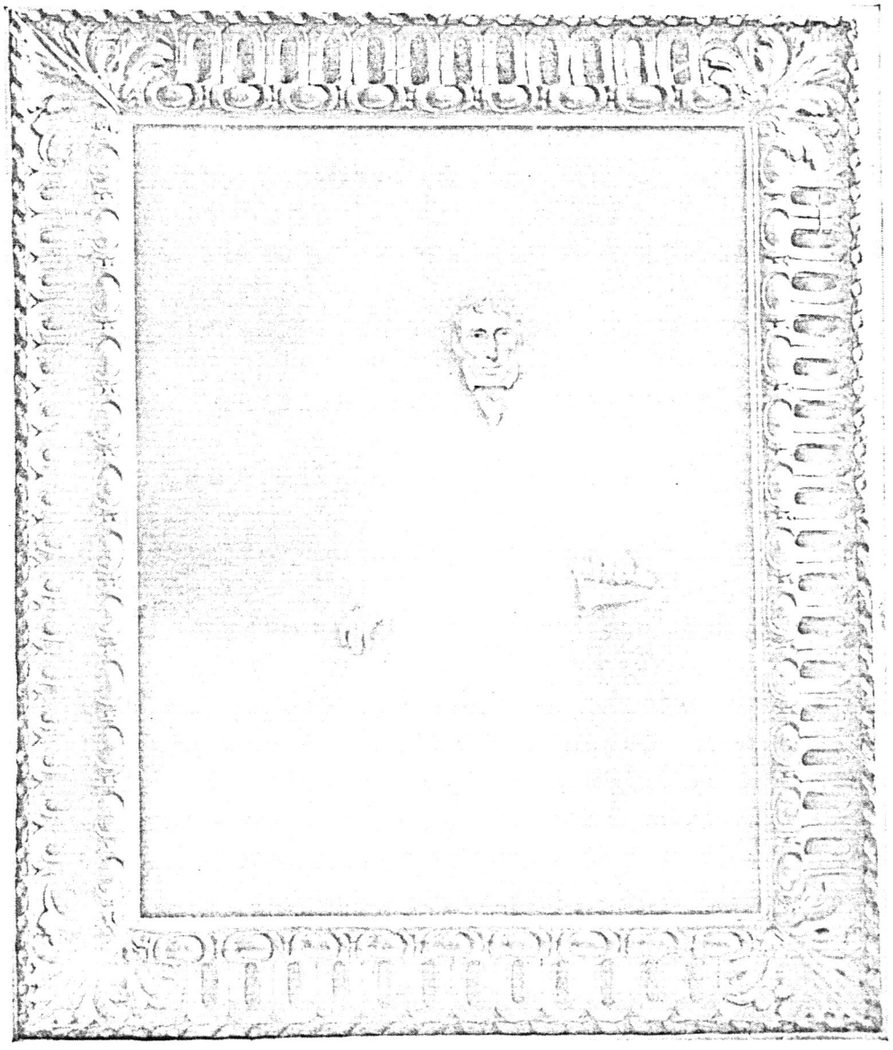
TO THE GENERAL TREASURER, THE TREASURERS OF DIVISIONS, AND THE OTHER COMMISSIONERS FOR THE CARE OF THE TURNPIKE ROADS IN THE BRISTOL DISTRICT, TO WHOSE FIRMNESS AND PATRIOTIC ZEAL IN THE DISCHARGE OF THEIR DUTY, THE KINGDOM IS INDEBTED FOR THE FIRST EXAMPLE OF THE PRACTICE OF A NEW AND EFFECTUAL SYSTEM OF IMPROVEMENT IN THE REPAIR OF THE ROADS, AND IN THE ADMINISTRATION OF THE FUNDS UNDER THEIR CARE:....

Similar statements, often more lengthy, are to be found in Remarks and all his other publications. Observations on the Management of Trusts... (1825) and Narrative of Affairs of the Bristol District of Roads... (undated, but undoubtedly published in early 1825) are both apologetic in nature, and are primarily devoted to the defense of his work as the first general surveyor of the Bristol Trust.

Nor was McAdam loath to tell Parliament of his Bristol successes. On 5 July 1820 he told a Select Committee on Roads that in 1815 he finally succeeded in persuading the Bristol Trust to create the position of general surveyor and to appoint him. His next words dismissed the subject in one breath: "Having succeeded in bringing the Bristol roads into good condition, and their finances in good order...."[45] In 1823 McAdam told the same story to the Select Committee investigating his petition, adding that this was his first

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45 Parliamentary Papers, 1820 (301) II.301.



JOHN LOUDON McADAM

WITH A VIEW OF BRISTOL IN THE BACKGROUND

official appointment, although he had refused a position tendered by the Thirsk Trust at an earlier date.[46] Before this committee, as before the public at large in his 1825 publications, McAdam painted a dark picture of the condition of the Bristol Trust in 1815. He summarized the 1815 report of the committee on finance, with heavy emphasis on the sentence averring that the business of the trust "appears always to have been in a state of obscurity and perplexity, without method or regularity: that the system of management has been radically bad: without head or focus to give force or effect...."[47] The trustees in 1815 were desperately planning to double the tolls and refrain from further permanent improvements, he declared, until they had the debt in hand.

> Instead of that, I took possession of the road at the old tolls; put them all in order; proceeded on with all permanent improvements. I have already laid out, on an average, 3,000 l a year in permanent improvements, and have decreased the debt. Therefore /he triumphantly added/, I say the roads are in excellent order, the debt decreased, and these permanent improvements made.[48]

He claimed the debt had decreased from the high point of £45,236 in 1815, to £40,293 in March 1821; and he presented to

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46 28 May. See Parliamentary Papers, 1823 (476) v. 53. Thirsk is in Yorkshire astride the Great North Road.

47 Ibid.; also, McAdam's Observations, p. 7 and Appendix No. 1.

48 Parliamentary Papers, 1823 (476) v. 53.

the Select Committee a list of the 182 permanent improvements he had made on the roads of the Bristol Trust since 1816.

Most of the available statistics relating to the Bristol Trust are found in McAdam's writings and personal testimony, although the newspapers occasionally supplement and/or verify those quoted by him. Utilizing all these, a sketchy view of the finances of the trust can be obtained.[49]

The debt of the Bristol Trust, which stood at £45,236 in 1815, was down to £40,293 in 1821, but had risen to £51,550 by March 1824, although at the latter date cash on hand totalled £4,478.[50] The expenses of the trust after 1819 rose proportionately to the acquisition of twenty-eight additional miles of road, as did income. It is apparent that McAdam's management did improve greatly the Bristol area roads; it is equally clear that although his management gave the trust <u>better</u> roads, it did not result in <u>cheaper</u> roads, nor did he decrease the debt.

McAdam stated that during the eight-year period (1816-1823) he spent a total of £115,082 on the Bristol roads,

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49 See Appendix C.

50 From McAdam's <u>Observations</u>, p. 142, and his <u>Narrative of Affairs of the Bristol District of Roads</u> (Bristol, 1825), p. 16. This latter volume is hereinafter cited as <u>Narrative</u>.

£28,280 of which were for permanent improvements, exclusive of the cost of the Act of Parliament (1819). He concluded, therefore, that he spent a net sum of £86,802 for road repairs during this period, or £10,850 per annum. In computing the cost of repair per mile per annum, McAdam utilized 178 miles for the entire period, in an unwarranted fashion bringing down the cost per mile.[51] Actually, there were only 149 miles in the trust prior to June 1819, and 177 miles after that date. For repairs only during his first eight years as chief executive for the Bristol Trust he actually spent an average of £66 per mile per annum, instead of £61, which was his own figure. The corrected average expenditure per mile per annum (£66) cannot be compared with the 1814 average for all roads and highways in England and Wales,[52] for obvious reasons, the chief of which is that McAdam's roads were excellent while the average English and Welsh road in 1814 was admittedly inferior and frequently impassable. Perhaps a fair comparison is possible, however. In Scotland, where turnpike trusts were organized by counties, and were thus

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51 Ibid., pp. 145 and 17 respectively.

52 Twelve pounds thirteen shillings and threepence. This figure includes all parish and turnpike roads.

quite large, expenditures varied greatly.[53] In 1820 Edinburghshire's expenditure per mile was £58, which was fifth among all Scottish counties; Lanarkshire, the largest in road mileage, was spending £68, while Linlithgowshire required the outlay of £132. The comparative figure (gross expenditure 1816-1823) for the Bristol Trust was £87. James McAdam reported to Parliament in 1823 the expenditure of various trusts under his supervision: on thirty-six trusts for which he had complete figures (amounting to 724 miles), he was spending £49,980 per annum, or an average of £69 per mile per annum. Eleven of these trusts required over £100 per mile per annum, while the Abingdon and Fyfield expended only £14.10 (forty-five miles) and the Hatfield and Reading spent a mere £18 (fifty-six miles).[54] These statistics are typical. Expenses on different trusts in different parts of the island varied greatly, and in any use of comparative figures great care must be taken to consider such factors as the availability of durable road metal, terrain, past care of the road,

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53 Parliamentary Papers, 1821 (747) IV.343, "Report from the Select Committee Appointed to Consider the Acts Now in Force Regarding Turnpike Roads and Highways in England and Wales."

54 This information is culled from an itemized list of trusts employing James McAdam, presented to Parliament by request in 1823. See Parliamentary Papers, 1823 (476) v.53.

rainfall, soil, and above all, the excellency of construction and upkeep desired by the trustees.

More significant, perhaps, than McAdam's claims to economy, were his more general claims. The mechanical aspects of his "system," he wrote in his Observations, are well known, vouched for "by eight years in the most trying situations," and confirmed by the high sanction of the House of Commons.

> Were the success which has attended the administration of the affairs of the Bristol Dictrict since 1816 likewise thoroughly [sic] understood, [he wrote] it might be the means of inducing the Legislature to secure to the whole of this important branch of the public service, those benefits which the exertions of an individual, while steadily supported against the pressure of existing difficulties, have afforded to this single Trust.
>
> The direct control established over the Surveyors in the most trifling details, the simplicity and clearness of the accounts; the prompt execution of the Road Laws; the open and public manner of conducting the business, which, while it precludes all possibility of fraud or collusion, has also prevented the interests of individuals being in any way compromised; have sufficed to render the Bristol District a deserving example to the Road Trusts of the Empire.[55]

Also noteworthy, he added, was the daring of the commissioners of the Bristol Trust, who permitted him to inaugurate his new plan, when the populace was so greatly disturbed and distressed in the early months of 1816.

It was, therefore, of vital importance to the success of the measure, to shew from the first its decided superiority: and

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55 Pp. 11, 12.

the most zealous exertions and utmost resources of the original proposer were employed to second the laudable designs of the Commissioners.[56]

Personally honest, even scrupulously honest, McAdam was never seriously accused of corruption in turnpike administration. Indeed, it was his pride that he cleaned out favoritism, laxity, and dishonesty in administration. But McAdam's claims to great economy in expenditure and to the prevention of further increment in the debt, cannot be countenanced. Most of these assertions were made in 1823 under the pressure of parliamentary investigation, or in 1825, when he was undergoing serious criticism by the Bristol Trust. Generally, McAdam was convinced he was the victim of "persecution" for his honest and impartial administration and that his jealous colleagues and subordinates were "out to get him." Egotistical and self-righteous, McAdam could err, ever so slightly, when citing comparative statistics to prove a point. In his mind, however, there could be no question about the general superiority of his system of constructing, managing, and repairing roads.

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56 Ibid., p. 13. The "original proposer," of course, is McAdam.

From all available evidence -- parliamentary reports, newspaper accounts, and the various quarterly reports, charts, lists, and miscellaneous data printed by McAdam in his four publications -- it is possible to draw a balanced and accurate picture of his career as General Surveyor of the Bristol Trust. This post, easily the most significant he ever held, and one of the most important of the kind in England, saw him skyrocket from obscurity in 1816 to national fame by 1819.[57] Here he tested the "system" he had been developing for many years, altered it ever so slightly when compelled to do so, and changed his emphasis from engineering problems to concentration on administration and personnel.

During the summer of 1815 McAdam had made careful inspection of the affairs of the Bristol Trust, and the condition of the roads. In his report, presented 4 December the same year, he said he found the fifteen surveyors ignorant of their tasks, each following his own inclinations in regard to drainage, the quality and size of road metal used, and the use of manual labor. His report was approved, and at the very same meeting he was recommended by unanimous vote to be the

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57 See below, Chapter IX.

surveyor general. Upon confirmation of his appointment on 15 January following, McAdam set to work diligently to reform the trust, and to bring it into line with his personal views. As rapidly as was feasible, local meetings of trustees of the specific roads were held, and the surveyors notified of his appointment and supervisory capacity. As early as 20 February he issued a circular letter to all surveyors, and a questionnaire on the 25th of the same month.[58] The circular letter required each surveyor to submit to the general surveyor a fortnightly report, summarizing the work accomplished in his district.[59] From the completed questionnaires he drew up an abstract of the expenses attendant upon the upkeep of the four branches of the Bristol roads. In the March 1816 report McAdam noted that the roads were passable, although rough.

> For remedy of this evil, I propose to lift and relay the surface of the Road to the depth of three inches, breaking the stones, so as none of them shall exceed six ounces, and to lay the whole smooth and level.

This would cost, he estimated, 3d. per square yard, or 1s6d. per running yard -- £132 per mile. Approximately one-third

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58 "Report to the General Meeting of Commissioners," 3 March 1816, printed in Appendix No. 6, McAdam's Observations. See also text of Observations, pp. 15-19. See Appendix D for a copy of this questionnaire.

59 McAdam printed a copy of this letter in his Observations, pp. 17-19.

of the entire 149 miles of road required this treatment, at an expense of £6,600, plus £2,000 for additional stone.

In concluding his initial report, McAdam touched on the subject of finance. He wrote,

> ...yet there seems to be a natural connection between the executive operations and the Funds by which they are to be supported, which may induce this meeting to consider of some regulations, by which these may hereafter be brought under review at the same time.

Specifically, he was interested in the sum available to him for road repair after interest payment; he was concerned with the debt retirement program, and with how much statute labor could he count on for his repair plans.

In these early months McAdam's particular concern seemed to have been the surveyors. They no doubt considered him an interloper, and resented any changes he proposed. He said in 1825 that his purpose in designing the first questionnaire was to secure "a check upon the irregular conduct of the then Surveyors, some of whom were strongly suspected of practices very inconsistent with their duty."[60] And in an undated report, McAdam went so far as to allege that he found in 1816 "that the greater part of the evils were occasioned by the dishonesty and incapacity of the Surveyors."[61] Within

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60 McAdam's Observations, p. 14.
61 Written about 1820; see ibid., pp. 15-17.

eighteen months, however, he succeeded in establishing the identity of the guilty ones and in securing their removal. After thorough indoctrination with both his operating principles and a sense of loyalty to him, the surviving surveyors and those newly-hired proved satisfactory to McAdam for many years.

In 1823, when national fame had rewarded McAdam's reforming zeal, and a Select Committee of the House of Commons was investigating his petition for public reimbursement for his travel expenditures, there arose the question of his financial arrangements with the Bristol Trust. To a questioner on 28 May 1823 McAdam replied that it was his definite policy never to contract with a trust for a specific sum. "I never contracted for a road, nor ever took such a thing in my life; nor ever allowed any of my family," he alleged.[62] He did, however, agree to the Bristol Trust's offer of the position, and acquiesced in the establishment of the salary at £400 per annum. In 1817 the salary was raised to £500, and remained at that level until 1825. Compared with other surveyors of his day, McAdam was undoubtedly well paid, for roadmakers and turnpike administrators occupied an inferior,

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62 Parliamentary Papers, 1823 (476) v. 53.

non-professional status.[63] That fact, indeed, was a major complaint with him, for in all his writings and testimonies he pled for adequate recognition of highway engineering executives. Concerning his own salary, however, McAdam told the Select Committee on 28 May 1823 that his appointment to the Bristol Trust necessitated his keeping three horses and a carriage, with several servants, at an annual additional cost to him of about £200. There were other occasional expenses. The £400 (later £500) annually paid to him was not, he claimed, really a salary: the trustees understood it represented only an indemnification for bona fide expenses.[64] For efficiency of operation the trust maintained a downtown office at 15 Small Street, Bristol, with a clerk in charge, all under the direct control of the Surveyor General.

-8-

McAdam must have been a rather difficult and exacting employer. He demanded almost slavish obedience from both sub-

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63 Early nineteenth-century Great Britain treated engineers in a somewhat patronizing manner. One reason for the formation of the Institution of Civil Engineers in 1818 was to seek "status" and recognition for engineers.

64 He stated that from his home in Berkeley Square to the farthest point in the Bristol Trust, the distance was thirty miles, and that his travel expenses alone consumed most of the sum paid him by the Bristol Trust.

surveyors and laborers, and was content with nothing less. To satisfy his ever-sanguine views on economy, he employed labor on a piece-work basis. During the Napoleonic Wars laborers on the roads of the Bristol Trust received fifteen shillings per week. McAdam, however, profited by the general decline in wages after 1815, and was able to secure adult male labor at twelve shillings per week.[65] He found that he could profitably employ children over ten years of age, women, and old men as stone "breakers." This work was done in a sitting position, utilizing a small, short-handled hammer, with a one-pound head, "the face the size of a new shilling."[66] This type of labor, which he employed on a large scale to break road metal to the prescribed six-ounce size, was cheap, and whole families were brought on the road. Whereas the Bristol Commissioners formerly paid fifteen pence per ton for Durdham-Down limestone broken to twenty-ounce size, bragged McAdam, he now (1823) procured the same stone, broken to his six-ounce specification, for tenpence per ton. The saving was effected by utilizing family labor, which plan, claimed McAdam, won the applause of the workman whose

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65 Parliamentary Papers, 1823 (476) v. 53.
66 See Appendix A for other details.

wife and older children in this manner became co-breadwinners.[67]

Another interesting aspect of McAdam's labor policy deserves attention. The nineteen parishes of Bristol had recently been combined into one corporation for the maintenance of the poor, and all relief concentrated in St. Peter's Hospital. McAdam -- who undoubtedly was regularly assessed a poor rate -- arranged with the governor of St. Peter's to open a certain number of quarries near Bristol. All able-bodied men who applied as unemployed at St. Peter's were sent to McAdam's quarries.

> ...the consequence has been [narrated McAdam to the 1823 Select Committee] that whenever a man came to complain... that he must be maintained, they had hammers and tools, and sent him to our quarries, and we made a point of giving them work there, not by the day but by the piece. The consequence has been that, I believe for the last three years, the city of Bristol has not paid to any individual of that description one farthing; the great number of men who were sent to us we should not have been able to employ; but as soon as they found out they were to get work, seven-eighths of them ran away; I remember one particular day, 35 were sent up, and only five remained.

McAdam demanded the same zeal and industry of his employees that he was accustomed to give to his superiors! And his solution for Bristol's unemployment problem was as

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67 Ibid.

68 Parliamentary Papers, 1823 (476) v. 53. The honorable members of the Select Committee were quite impressed with this recital!

effective as it was novel.

-9-

The Bristol Trust met in general assembly on the first Friday of each quarter -- in March, June, September, and December. This practice was required by the Bristol Turnpike Act, and was generally followed except on those rare occasions when a quorum of nine trustees could not be mustered. Twenty-one trustees were required for alteration of any standing general order of the trust. Most meetings were rather dull, and little business was transacted outside routine "letting of the tolls," hearing the report of the surveyor general, and similar functions.

In his various writings McAdam has left posterity excerpts from the minutes of twelve general meetings of the Bristol Trust, and from the newspapers we are able to corroborate his transcripts of most of these, and learn of ten other general meetings held between 1816 and 1828.

McAdam's quarterly reports reveal the vigor and imagination, combined with ample self-confidence, with which he set about his work at Bristol. His initial activities have already been noted.[69] In the summer of 1816 he recommended a

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69 See above, pp. 216-230.

reduction in the number of surveyors, an increase in their individual responsibilities and salaries, and that a stipulation be inserted in their new contracts prohibiting their participation in other employment while engaged by the Bristol Trust.[70] The fifteen surveyors, whose total annual wage was a mere £672.14 per annum, were accordingly reduced to ten, who were paid £100 each per annum.[71] and their duties enlarged and rearranged. McAdam recommended more detailed contracts, with carefully-worded articles of agreement. Frequent comments were made about labor, road conditions, finance, statute labor, highway regulations, and a multitude of other problems.

By 3 March 1817 McAdam claimed that he had fully reformed 100 of the 149 miles of roads in the trust, and that while other trusts found the severe winter had ruined their roads, the Bristol Trust roads "have been gradually amended... /and/ are in better condition than at the commencement."[72] This proud statement must have been true, for the Earl of Chichester, one of the Postmasters-General, told a Select Committee of the

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70 "Report to a General Meeting," 3 June 1816, printed in McAdam's Observations, Appendix No. 6, pp. 105-108.

71 Parliamentary Papers, 1823 (476) v. 53.

72 "Report to a General Meeting," 3 March 1817, printed in McAdam's Observations, p. 112.

House of Commons that at this time there was a general public clamor for acceleration of the mails, and a concurrent complaint about the terrible condition of turnpike roads. A happy exception, he added, was the London-Bristol road, where acceleration was possible on the section committed to the care of the Bristol Turnpike Trust. Upon inquiry, the Bristol postmaster informed the General Post Office that McAdam was responsible for most of the improvements noted. In this manner McAdam was first brought to the attention of the postal authorities.[73] He was interviewed by Lord Chichester, and for many years was an official adviser of the General Post Office, although he received no salary from that agency.

General satisfaction existed with McAdam's conduct of his job. On 3 March 1817, after one year's service, the trust voted to increase his salary to £500 in token of his "highly satisfactory" work.[74] On 7 December 1818 the trust unanimously ordered that his triennial appointment be renewed at the same salary, and directed that the resolution to that effect be inserted in the newspapers, with the further commendation as follows:

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73 Parliamentary Papers, 1823 (476) v. 53, testimony given 3 June 1823.

74 McAdam, Observations, "Minute of a General Meeting held at the Guildhall, Bristol," 3 March 1817, p. 122.

Resolved unanimously, that the thanks of this Meeting be given to Mr. M'Adam, for the zeal and ability with which he has executed the very arduous duties of his Office, from which it appears to this Meeting, that the most important advantages have resulted to the Roads under his care.[75]

The newspapers joined the acclamation. Felix Farley's Bristol Journal, edited by McAdam's friend and printer, J. M. Gutch, noted the reappointment briefly but approvingly.[76] Even the Bristol Mirror, which was usually impartial when concerned with McAdam, editorialized in these laudatory phrases:

This gentleman will probably not thank us for calling him a Reformer, but he is one, in the best meaning of the term.... His plan, the superiority of which is now universally acknowledged, has been adopted in many other parts of the kingdom; and must ultimately produce an immense saving in this branch of the public expenditure.[77]

Perhaps the Mirror's use of the adverb "universally" was indiscriminate, for the article was written in December 1818, only thirty-five months after the "unpaid, amateur administrator" assumed the responsibilities of the post! But already McAdam had captured the imagination of the public.

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The Bristol Trust Act of 1797 (effective from 24 June 1799) was scheduled to expire in 1820. In 1818 and 1819,

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75 Ibid., 7 December 1818, p. 123.
76 12 December 1818.
77 12 December 1818.

therefore, much thought was given to the procurement of a new act for the Bristol Trust. In March 1819 a heavily-attended general meeting negatived the motion of a February called meeting, which would have divided the trust into autonomous Gloucester and Somerset units.[78] Further evidence of the presence of malcontents within the trust is given by a second motion, also defeated, on the same day, which would have sought a clause in the new bill prohibiting the appointment of a general surveyor by the trust. The friends of McAdam, present in large numbers, then moved "that the thanks of this meeting be given to Mr. M'Adam for his judicious conduct and ability in the discharge of his duties as General Surveyor...." This motion carried with only one dissenting vote.[79]

The new Bristol Turnpike Trust Act was passed in June 1819 and graced by the royal signature on 14 July. This long document (110 sections) is very similar to its predecessor. It enumerated the personnel of the trust: all justices of the peace and all knights of the shire, Bristol Members of Parliament, the Lord Mayor of Bristol, the aldermen and common

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78 McAdam, Observations, "Minute of a General Meeting held at the Guildhall, Bristol," 22 March 1819, persuant to adjournment, p. 125. Sixty-six commissioners were present. A large attendance was typical in periods of controversy.

79 Ibid., pp. 125-126. The name of the dissenter is not known.

councilmen, plus 256 persons cited by name in Section II. "John London [sic] M'Adam" was listed, but under the terms of Section VI all persons holding office in the trust were forbidden to serve as commissioners. Twenty-eight miles of new roads were added to the trust, and a description of each line was given in Section I. The tolls were prescribed in detail, and were unchanged except to require (Section XXVIII) of stage coaches, postchaises, and similar vehicles a toll at each passing of the gates, instead of one payment for each round trip. The royal family and certain other favored few were exempt from the tolls. The trustees were allowed to compound statute labor, a new concession. Otherwise, the Act of 1819 was almost identical with that of 1797.[80]

Although the details are not to be found, it may be assumed that there was "much ado" in Bristol and at Westminster in securing passage of this act. A tremendous amount of effort, and much expense, inevitably accompanied these periodic renewals until a partial remedy was found in 1831 in the passage of the "Turnpike Acts Continuance Acts."[81]

Only a few details about the particulars of the

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80 Act 59 George III, cap. 95.
81 See above, p. 177.

administration of the Bristol Trust from 1820 to 1823 are known. In 1822 a committee was appointed to inquire into the nature of the expenditures of the trust. This committee found the finances in a very favorable condition, but would not recommend reduction in the tolls until improvements then in progress were completed. It decreed "that the Roads are in general managed in a very judicious and economical manner;" and that it would be unwise to reduce managerial costs. A saving could be effected, however, by reducing the interest rate on its outstanding bonds from five per cent to four and one-half per cent.[82]

McAdam was busy much of the time in testifying before parliamentary select committees in 1819, 1820, and 1823. Throughout the period he was intermittently busy seeking a public grant for his "travel expenses."[83] He gave his time in advising the General Post Office, and in 1823 presented a select committee with a list of seventy trusts he claimed to have visited and advised.[84] He traveled extensively assisting his sons and offering advice to surveyors, trustees, and other

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82 McAdam, Observations, pp. 127-129; also McAdam, Narrative of Affairs, p. 27.

83 See below, Chapter X.

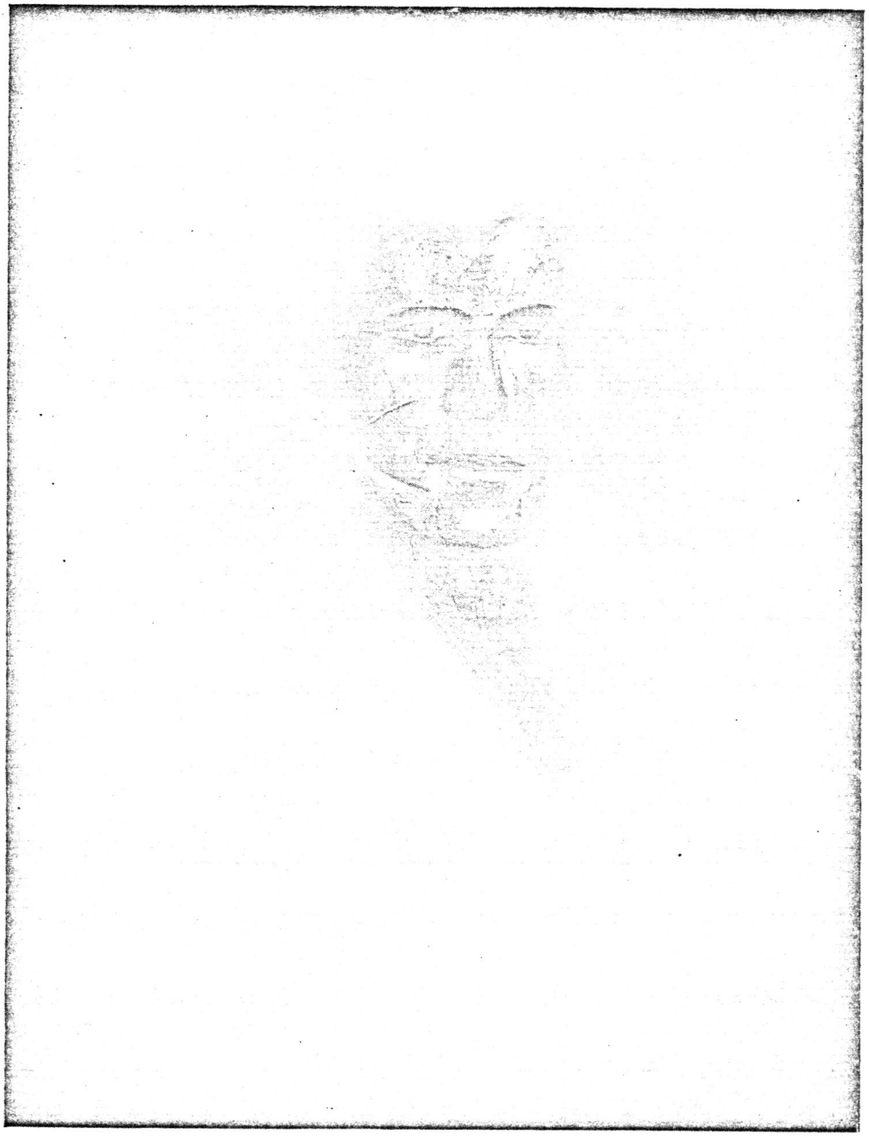
84 Parliamentary Papers, 1823 (476) v. 53, Appendix Q, 7 June 1823.

interested persons. It is little wonder, therefore, that we find both jealousy and genuine dissatisfaction arising in the Bristol Trust in 1824. McAdam and his son Loudon, who served as his assistant, had been "spreading themselves too thin," and it caused special resentment when the elder McAdam petitioned Parliament for a public grant. Several trustees, perhaps encouraged by enemies McAdam had made in the New Gaol controversy or by rival surveyors, commenced a whispering campaign that McAdam was seriously neglecting his position as General Surveyor in Bristol. By 1824 this agitation had progressed beyond the stage of a whisper. On 28 April, at a special general meeting of the trust attended by forty-one trustees, it was unanimously resolved "that Mr. Loudon M'Adam, son of the said John Loudon M'Adam, be appointed General Surveyor in conjunction with his said father... so long as the said John Loudon M'Adam shall continue General Surveyor of the Trust."[85] Both the Bristol Mercury (3 May) and Felix Farley's Bristol Journal (1 May) noted the new appointment, the latter commenting editorially,

> The manner in which this appointment terminated precludes us from the necessity of making those remarks upon the opposition to the measure, which we should otherwise have found it

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85 McAdam printed this resolution in his Observations, pp. 129, 130, and in his Narrative of Affairs, p. 28.



JOHN LOUDON McADAM, JUNIOR

our duty to do. Persecution is a punishment at which the feelings of the great majority of our countrymen ever recoil.

Discontent was not quelled by the appointment of young Loudon as Joint-General Surveyor in April. On 30 September of the same year at the conclusion of an adjourned quarterly meeting, a motion was made by John Savage, and seconded by Charles L. Walker (without prior notice or discussion), to dispense with the services of both the McAdams. Opposition immediately arose to the measure, and Alderman Thomas Daniel, a leading member of the trust, moved to amend the motion by requiring the appointment of a committee "to investigate the nature and extent of the absences of the General Surveyor." Vote on the amendment found the trustees evenly divided, nine to nine. This dilemma was solved by the affirmative vote of the chairman, and the committee was appointed.[86]

In his Narrative of Affairs of the Bristol District of Roads, which was printed shortly after this controversy and which is devoted entirely to his defence, McAdam printed the written evidence taken by the committee from eight sub-surveyors[87] and six district treasurers.[88] In general, the

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86 Felix Farley's Bristol Journal, 4 December 1824.

87 George Down (Aust Road), Stephen French (Horfield Road), George Godfrey (Bitton and Toghill Roads), James Stokes (Dundry Road, together with sections of the Winford Road and Ashton Road), Edward Whitting (section of Winford Road),

treasurers were more critical of McAdam than the sub-surveyors. Each witness was asked how often the McAdams visited his road, what was the longest period of their absence, something of the supervision given by them, and similar queries. The sub-surveyors were often complimentary in their remarks, rarely derogatory. They expressed the view that McAdam gave adequate attention to supervision of their particular portions of the trust, although all agreed that he was not as often "upon the roads" as in the earlier days of his tenure of office. Stephen French and Thomas James were especially laudatory. James, who testified on 21 October, went so far as to state,

> I can truly say I have received every assistance from the General Surveyor since I have been under his direction, which has materially benefitted the Trust, and do believe it his his [sic] desire for the work of the road to be done in the most economical and substantial manner. I have taken the liberty of stating this, as I disputed every part of it until convinced by experience that his system was best.[89]

The district treasurers sang to a different tune. Four of

Thomas James (Brislington and Whitchurch Roads), William Coleman (Stapleton and Mangotsfield Roads), and John Light (Ashton Road, etc.). None of these men worked for the trust prior to 1815.

88 Thomas Hassell (Winford and Dundry Roads), John Haythorne (Stapleton, Mangotsfield, Toghill, and Bitton Roads), Gabriel Goldney (Aust Road), Robert Phippen (Churchill and Compton Gates), Edward Rolle Clayfield (Brislington and Whitchurch Roads), and Joseph Metford, Jr. (Ashton Road).

89 McAdam, Narrative of Affairs, p. 35.

the six complained that "Mr. McAdam has not attended me as Treasurer as frequently as I think was his duty."[90] John Haythorne, former Lord Mayor of Bristol and treasurer of four roads, agreed that McAdam had been absent from the area about half the time. He joined three other treasurers in declaring that McAdam formerly asked permission to be absent from the area of the trust, but for several years had dispensed with that practice. Robert Phippen and Joseph Metford dissented from the majority opinion, claiming (in the words of Metford) that "During the last three or four years, up to April last [when young Loudon was made joint-surveyor general] I have had every attention from Mr. McAdam I could wish."[91]

John Gardiner, chairman of the committee investigating McAdam, submitted his report to the trust on 25 November 1824.[92] The views of the committee seem rather harsh, in view of the evidence given, which was conflicting, and as often commendatory as derogatory; but the report indicates that the committee gave more credence to the testimony of the four critical district treasurers (especially Haythorne) than to the

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90 Ibid., pp. 37-40.
91 Ibid., p. 39.
92 Ibid., p. "41*". It is assumed that McAdam printed all the testimony given. Apparently he did, for much he printed was critical of himself.

favorable evidence of the more humble sub-surveyors. The core of the report was as follows:

> ...as the result of such investigation, their opinion, that the Absences of the General Surveyor have been such as to be entirely inconsistent with the discharge of his duty to the Trust, and decidedly contrary to the Terms of his original engagement.93

The committee further reported that on 12 November a copy of the testimony taken had been forwarded to McAdam, and he was at the same time notified "that he was at liberty to adduce such evidence, and offer such explanations, as he might think proper;..." McAdam replied to their letter, the committee said, declining to answer the charges on the ground that he had been denied an opportunity of hearing the evidence when delivered. By way of rebuttal, the committee explained in its report that McAdam's presence would have prevented free examination of the witnesses, and might have been embarrassing and "improper" with regard to his feelings and the committee's. Every effort at fair play was made, alleged the committee, when a complete transcript of the proceedings was sent to McAdam and he was given the opportunity of defence with every facility made available to him.

The "showdown" -- a dramatic general meeting at the Bristol

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93 Ibid.

Guildhall -- took place on 3 December 1824. Seventy-one trustees were present to discuss and reach a decision on the general surveyor. The "Right Worshipful Mayor" was in the chair. Apparently the only business of the day pertained to the motion made on 30 September by Savage, that McAdam be dismissed from the service of the trust.[94] The report of the committee was read, together with all evidence. Despite the objections of Savage, a long letter from McAdam to the trust was also read.[95] McAdam, who had received the committee's letter in Penrith, Cumberland, on 14 November, had hurried back to Bristol, arriving in time to pen his plea to the trust on 2 December.

McAdam's letter reveals a touch of his ancient malady, the martyr-complex, but its tone is generally straightforward and convincing. His argument was the old one, that he took the trust in hand at a most difficult time,

> when the best exertions of all the commissioners seemed inadequate to meet the exigencies of the time; when the roads were in ruin, and some of them under notice of indictment, and the Finances in a state of Bankruptcy,...

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94 Felix Farley's Bristol Journal, 4 December, carried a detailed account of the proceedings. The Bristol Mirror, 4 December, and the Bristol Mercury reported the transactions more briefly. The above narrative is based on the three accounts.

95 This letter is printed in full in McAdam's Narrative of Affairs, pp. 41-44, and a precis is given in Felix Farley's Bristol Journal, 4 December.

But with the consistent support of the trustees, he wrote, "their Executive Officer" has been able successfully to oppose all the obstacles of prejudice, ignorance, and self-interest, and to bring the trust to a condition of unparalleled excellency. Surely, he reasoned, the gentlemen "who now desire to do away with the existing system," which is working so well, have a better system to propose. If this is the case,

> ...I am ready to qualify as a Trustee, and in that capacity, to give a sincere support to any system that shall afford a reasonable prospect of success in the affairs of the Trust, the prosperity of which will always be my principal object.

He claimed he was forced to write the letter to defend his reputation, which had been tarnished by the Savage motion of 30 September. His peroration reads,

> ...in accepting the charge of the Roads of this District, I could have had no view to profit, the expences attending the situation having very nearly absorbed the whole salary. I had other and more extended views, when I undertook the difficult task of bring order out of the confusion in which I found the affairs of the Trust. I expected and obtained a reward which was far above price, in the kind indulgence and confidence of the Trustees, by which I have been enabled to make this Trust an example that has been followed and imitated from one end of the kingdom to the other, and which has obtained the sanction of the Legislature, and the approbation of the whole Country.... /If another system is to be followed/ all that I have to request is, that they /the trustees/ will do me the justice to bear testimony to my zeal, exertions, and hitherto unquestioned success in their service. I ask this as a simple act of justice, and have a very confident hope that I shall not make the appeal in vain to a meeting composed of English Gentlemen.

This eloquent appeal by McAdam, combined with the

controversial nature of the accusations, resulted in debate that was both prolonged and acrimonious. The division finally came when Robert Bush, McAdam's cohort on the New Gaol Citizen's Committee, moved to amend Savage's motion as follows:

> That although Mr. McAdam's whole time may not have been appropriated to the Bristol Trust, as stated by the Report of the Committee, yet it does not appear it would be expedient at present to dispense with his services, but that he be informed, that in future this Meeting will expect that one of the General Surveyors shall be always in attendance on the Trust, to perform the duties of the original appointment.[96]

Seconded by the Rev. Mr. Turner, this amending motion carried forty-five to twenty-six. Eleven of those whose vote was negative were members of the Common Council of Bristol.[97] Perhaps McAdam was still reaping the results of his 1816 stand in the controversy over the jail.

Although the five to three vote of the general meeting officially ended the agitation with a censure for the aging McAdam, the issue remained a live one. The Bristol Mirror on 11 December printed a caustic editorial on the careers of the two John Loudon McAdams. After denying any hostile personal feelings, and reviewing the terms of the original engagement of McAdam (which stipulated that the general surveyor must "attend

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96 Felix Farley's Bristol Journal, 4 December 1824.

97 According to a letter to the editor of the Bristol Mirror, printed 1 January 1825. The letter was signed "Alpha."

the meetings... for the care of the several Roads... to attend all General Meetings... to visit each Road in its whole extent as frequently as time will permit"), the writer claimed that after several years of satisfactory service, McAdam undertook too many engagements and consequently neglected the Bristol Trust. Even now, he added, both father and son are so heavily committed that they cannot possibly be expected to abide by the terms of the resolution of the meeting on 3 December. McAdam, concluded the editorial, should resign.

One week later a letter from Henry Ball, McAdam's attorney, was published in the Mirror. The McAdams threatened legal action on the grounds of slander, but were determined first to give the paper the opportunity of investigating their conduct as General Surveyors before a public tribunal![98] Details were specified for this hearing. The editor of the Mirror denied that the editorial of the eleventh was "slanderous," and contended it was not written by the editor but by a road commissioner whose name he believed was known to McAdam.

On 25 December the Mirror printed a letter from "A. B."

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98 Today, of course, the term "slander" is usually limited to oral statements of a malicious, false, and defamatory nature; "libel" is more generally used to describe similar written remarks.

which was critical of McAdam, and a similar criticism by "ALPHA" on 1 January 1825. On 8 January, both the Journal and the Mirror printed a letter from Attorney Henry Ball enclosing a note from McAdam dated 5 January. Joseph Storrs Fry had informed McAdam that he was the author of the controversial editorial.

> This information /wrote McAdam/ has entirely satisfied me; and whenever Mr. Fry or the Proprietors of the Mirror feel disposed to write on the same subject, and will have the candour to do so under their real signature, it will be considered perfectly harmless and altogether indifferent to us.

Rather caustic editorial comment by the Mirror concluded the episode. Nothing further, at least, has been preserved for posterity.

That the bitterness engendered in this dispute was long-lived there can be little doubt. It was so far forgotten, however, by the following summer that at a Chamber of Commerce dinner in July several toasts were proposed to "the Gentlemen who formed the late Deputation from the Chamber of Commerce to watch the progress of the Town Dues Bill in Parliament." One of these toasts was made to John Loudon McAdam: "Toast to Mr. McAdam, whose excellent system has been so highly beneficial to the Commercial Interests of the City."[99]

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99 Felix Farley's Bristol Journal, 23 July 1825.

It is evident that his long residence in Bristol, together with his varied civic, business, and professional activities, had in spite of controversy and rivalries won for him a high place in the regard of his adopted city.

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The Bristol Mirror of 12 February 1825 carried a brief announcement that is all we know about the death of Glorianna Margaretta McAdam. The paper merely recorded in cursory form in its listing of "Deaths": "--Feb. 10 in Berkeley Square, Mrs. McAdam, wife of John Loudon McAdam, Esquire." It must have been with deep grief that McAdam laid to rest his American-born wife and companion of forty-seven years. She had departed her Long Island family and home to accompany her husband, who had been exiled from the newly-created United States of America. In Scotland she had been a partner in his prolonged controversy with the Muirkirk Iron Company; she had moved to Flushing with him, then on to Bristol, where she shared the fame which had finally come to him. She had borne him seven children, six of whom had grown to maturity. From a letter she wrote to her brother we know that her last years were infirm, and that her thoughts dwelled more and more on the

past, when youth and vigor had belonged to her.[100] She died in her sixty-sixth year, leaving her husband a widower at sixty-eight. Her death was no doubt a great blow, coinciding as it did with the unfortunate strife in the Bristol Turnpike Trust.

It is obvious, however, that even this great personal tragedy hardly slowed up the pace of McAdam's work. He was at the time engaged in surveying a line for the proposed London and Bristol Railroad, with an accompanying turnpike road designed to reduce the road mileage between the two cities by ten miles. He reported from London on 17 January 1825; two weeks later he addressed the annual meeting of the Bristol Chamber of Commerce on the subject, proposing also a reduction in port dues;[101] Mrs. McAdam died on 10 February; and that very same week McAdam was reported busily engaged in completing the survey of the proposed road from London to Bristol![102]

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Less than one month after the death of Glorianna McAdam, the struggle over McAdam's general surveyorship in Bristol

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100 Mrs. McAdam to B. J. Nicoll of Shelter Island, New York, 3 September 1821, MS. in the possession of Mrs. Flora Laye, London.

101 Felix Farley's Bristol Journal, 5 February 1825. McAdam estimated the new turnpike would cost £130,000.

102 Ibid., 19 February 1825.

flared up again. A man named Lucas submitted a report to the March general meeting. Lucas was a contractor who offered to repair the roads by contract for a specified sum. Closely following the Lucas offer, a letter from McAdam was read, in which the General Surveyor controverted several of Lucas' statements. After discussion a committee was appointed to investigate the matter, and a vote of thanks to Lucas carried by a slim margin of five votes.[103]

To the next meeting of the trust (3 June) McAdam submitted a letter of resignation, asking that all mutual obligations be ended by Lady-day next (25 March 1826), or earlier if desired by the trustees. Denying that he had contracted to give his whole time to the Bristol Trust, or that he was obligated to confine his interests to the one area, McAdam contended that the Bristol engagement had never been profitable to him. He was grateful, however, to give his "last exertions to that Trust which first confided in /him/." With a review of his grievances, McAdam submitted his resignation.[104]

The trustees deferred action on McAdam's letter, and called a special meeting for early July, at which time his

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103 Bristol Mirror, 5 March 1825.
104 Felix Farley's Bristol Journal, 11 June 1825.

resignation was accepted with a vote of thanks for the valuable services he had rendered to the trust, and for the zeal and integrity with which he had executed his "arduous" duties. This resolution was carried by the slim margin of one vote (23 to 22).[105] The schism of the trust was serious indeed! The Lucas report, again debated, received a rather cool reception from the trust, and was not adopted.

Even with the acceptance of McAdam's resignation the matter did not rest. At the September 1825 Quarterly Meeting a proposal was made to re-employ him, but it was resolved to defer the final decision until December.[106] With the Mayor in the chair on 2 December, the trust determined to reappoint John Loudon McAdam as its General Surveyor! The vote -- again indicating much opposition to the action -- was thirty-nine to twenty-five. The trust reported that it reasoned in this fashion: considering the great services rendered by McAdam in improving the roads of Bristol and the entire kingdom; considering the favorable report of a committee appointed 4 May last to report upon the conduct of McAdam as Surveyor General and superintendent; noting the need for the services of an upright and positioned gentleman; and in view of the early,

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105 Ibid., 16 July 1825; also, Bristol Mirror, 16 July 1825.

106 Felix Farley's Bristol Journal, 1 October 1825.

full-time services of McAdam, by whose planning there are now honest, able, and industrious sub-surveyors -- it is hereby resolved that it would be of benefit to the public if McAdam were appointed Surveyor General, to commence 25 March next (the date his resignation was to have been effective) at £250 per annum. McAdam was required to give at least one fortnight each quarter to the care of the roads. His other duties were merely to report on the roads at each quarterly meeting. His privileges were then outlined. He was not obligated to discuss his reports subsequent to their approval unless previously charged with dishonest or improper conduct. If any officer of the trust were charged with improper conduct, it was provided that prior to his "trial" he be given a copy of the charges preferred against him. In the absence of the general surveyor, the office clerk must keep the fortnightly reports. The sub-surveyors must attend all district meetings of their respective areas.[107]

With this decision, therefore, McAdam was vindicated by the trust that first appointed him, and whose approbation he most persistently sought. Little else is known of McAdam's

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107 Ibid., 3 December 1825; also, Bristol Mercury (5 December) and Bristol Mirror (3 December).

dealings with the Bristol Trust. But two further notes exist. At the Quarterly Meeting on 3 March 1826, an "office clerk" was appointed, in accordance with the resolution which re-employed McAdam. This clerk received the additional title of "deputy surveyor," and was assigned an annual salary of £250. During the absences of the general surveyor, the "deputy" was empowered to act in his stead.[108]

The final notation pertaining to McAdam and the Bristol Trust is found in the Journal of 13 December 1828, citing a report made by him to the trust on 5 December. Apparently vigorous and active at the age of seventy-two, McAdam reported that whereas in 1826 the trust expended for repairs £14,140; in 1828 that item amounted to only £12,182. Permanent improvements were made in 1825-1828 totalling £16,208.3.4 -- from savings (effected, to be sure, by the general surveyor!). The sum of £4,026.2.11 represented cash on hand. With a typical McAdam flourish, the report concluded that fourteen years had elapsed since the Bristol Turnpike Trust commenced to be an example to the nation. The trustees were complimented on the favorable state of their roads and funds, and "also upon the many advantages the kingdom at large has derived from their

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108 Bristol Mirror, 11 March 1826.

example."

The Bristol papers never again mention McAdam's name in connection with the Bristol Trust, and even in their final eulogies of him, they fail to refer to his connection with the trust in his last years. On the basis of two considerations, however, it is probable that McAdam gradually relaxed his hold on the trust between 1828 and 1836, giving his youngest son control of the reins of power. First, in late 1827 or in the early spring of 1828, McAdam moved to Hoddesdon, Hertfordshire, where he resided officially until his death. Second, his son Loudon, who was associated with his father in Bristol almost from the beginning, was made Joint-Surveyor General in 1824 and was acting as General Surveyor of the Bristol Trust in 1857 when he suffered a fatal stroke at his Sion Hill (Clifton, Gloucestershire) home.[109] Still, it seems hardly probable that this proud, grand-old-man of British coaching would ever have voluntarily relinquished his beloved Bristol post, despite his preoccupation with Perthshire roads during his last years.[110] It may have been that he held on, officially at least, until the very end.

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109 Bristol Times and Felix Farley's Bristol Journal, 28 March 1857.

110 See below, Chapter XIII.

CHAPTER IX

THE SYSTEM SPREADS.

A perennial problem confronting historians -- especially biographers -- is the proper assignment of talented and dominating figures to their respective places on the stage of history. Carlyle's interesting Great-Man Theory is still popular (perhaps more widely held than will be admitted!), but has of late been forced to give some ground, although our best historians give a great deal of attention to a Luther or a Leonardo, a Bonaparte or a Bismarck. While McAdam cannot make a comparable claim to fame, he was in his day an influential personality, and captivated the popular imagination as did few leaders of early nineteenth-century Great Britain. The problem remains, however, of relating him to his age, especially in regard to the Industrial Revolution which was rapidly transforming the United Kingdom into the industrial behemoth of the Victorian Age.

When McAdam was appointed General Surveyor of the Bristol Turnpike Trust (1816), Great Britain was casting about for better modes of transportation. Her need was both for speed and economy. Canals furnished economical transportation, but were painfully slow. Experimentation with horse-drawn rail traffic

was not promising great improvement, and steam had not yet been effectively harnessed for general rail or highway use. Smoother roads, constructed soundly to withstand wear and weather, with improved vehicles, promised slightly faster passenger service. For the shipment of freight, however, there was little immediate hope for greater speed. Everyone recognized that with horseflesh the only motive power, faster vehicular transportation could hardly be attained for any purpose.

The famous era of English coaching began at about the same time McAdam was given the Bristol post. It is not true that with the appointment of McAdam this colorful period was inaugurated. Rather his appointment signalized the growing concern for strenuous measures to cope with the increasing debts and the need for improved services. Throughout the United Kingdom the need for reform of turnpike trust administration was keenly felt. Improved engineering methods were likewise eagerly sought by the more progressive trustees and officials. The reasons, therefore, for McAdam's success -- extraordinary success -- between 1816 and 1825 are not difficult to find.

Prior to 1816 McAdam was a colorful but obscure Scot who had led an interesting life as an American Revolutionary Loyalist, pioneer chemical manufacturer, and one-time prize-master during the wars of the French Directorate and Consulate. In 1816 he was merely a respectable Bristol merchant, civic minded but unknown outside Bristol, Falmouth, and Ayrshire. The events of the succeeding ten years, catapulting this dour Scot of limited means and ability to national and international prominence, are indeed no less than phenomenal.

His first trust assignment, although the largest in either England or Wales, was limited to one area in two southwest counties. Twenty-five months later he was in charge of two trusts, Bristol and Cirencester, and his "system" had been embraced by eleven other road trusts responsible for more than seven hundred miles of turnpike roads in fifteen counties. By the same date (1 February 1818) his son William, who had just undertaken the profession, was employed by seven trusts controlling 108 miles also in the southwest. His second son James, also a newcomer to the profession, was directing the operations of seven other trusts, embracing 111½ miles in the London area.

Within seven years after taking his first assignment (by 1823), McAdam had personally visited and advised thirty-two trusts; a total of eighty-five, responsible for approximately two thousand miles of turnpike roads, were in the hands of his three sons (John Loudon, Jr., had meantime entered the profession); and another thirty-eight trusts were being administered by "strangers" according to his prescribed system![1] This year represented the high point in his endeavors as well as in his popularity, and thereafter his activity tapered off. His fame, somewhat tarnished by his demand for a public grant, likewise dimmed during his last years.

From the very beginning in Bristol, McAdam insisted his "system" was superior to all others, more economical and at the

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1 Each of the members of the family was asked by the "Select Committee on Mr. McAdam's Petition" during the summer of 1823 to submit a statement showing the extent of his professional contracts with turnpike trusts. James McAdam seemed busiest and most prosperous of all, administering thirty-nine trusts totaling 858 miles, and providing him £3,479 gross annual income. For these trusts he expended over £50,000 annually. Even young Loudon, age twenty-four, was accountable for the technical supervision of 405 miles comprising sixteen trusts in the Midlands and West Country bordering Wales. See Appendix E for detailed extracts for 1818, 1823, and 1825.

same time more effective. These claims -- especially the claim to economy -- appealed to the nobility and landed gentry who ran the trusts. He was cocky, vigorous, self-important, and obstinate. As a modern "prophet," he could bear no criticism, and was vain and imperious. In spite of these traits, he was usually affable and personally popular. These very characteristics, apparently contradictory and anomalous, when combined in an aggressive personality who presented a workable and timely program, resulted in a sensational ascent of the ladder of fame between 1816 and 1823.

The chief factor in his success was undoubtedly his work at Bristol. The renown of Bristol roads brought him national attention. Although the General Post Office, the Board of Agriculture, innkeepers, coach proprietors, travelers, and the sons and friends of McAdam testified to the excellence of his Bristol achievements, the chief vehicles of his exploits were his books. In his very first year as Bristol General Surveyor, he published a slim volume entitled Remarks on the Present System of Road Making; with Observations Deduced from Practice and Experience, With a View to a Revision of the Existing Laws, and the Introduction of Improvement in the Method of Making, Repairing, and Preserving Roads and Defending the Road Funds

from Misapplication.[2] Printed in Bristol by his friend J. M. Gutch, who was editor of Felix Farley's Bristol Journal, this volume is more of a pamphlet than a book, for it contains only thirty-two pages. It is dedicated to the officials of the Bristol Trust, "to whose firmness and patriotic zeal in the discharge of their duty, the kingdom is indebted for the first example of the practice of a new and effectual system of improvement in the repair of the roads, and in the administration of funds under their care...."

The extravagant claims of both the title of this book and the dedication must be considered in the light of the fact that McAdam only undertook the supervision of the Bristol Trust in January of the year of its publication. The book consisted of a few pages of poorly-written and badly-organized text embracing three topics: "The /Present/ Mode of Making Roads," "The Commissioners, and Officers Employed Under Them, For this Service," and "The Care of the Finances." As an appendix he included an extract from the Report of the Committee on Turnpikes (1811), and a further extract from his own "Observations"

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2 The month and day of publication is unknown. Only three copies of this first edition are known to exist today (April 1, 1950). One copy is in the British Museum; a second in the Library of the Institute of Civil Engineers; and a third is in the Municipal Library -- all in metropolitan London.

written for the 1811 Report. The Webbs very accurately note that McAdam was inept at literary expression, that "he adumbrated, in his confused and unliterary way..." an improved system of trust administration.[3]

Frequent references in the volume are made to the author's ability and success in Bristol. But amazing as it seems, Remarks on the Present System of Roadmaking, devoid not only of literary merit but also of more than meager road-engineering information, made a tremendous appeal to powerful road trustees and other interested persons. Within eleven years nine English editions were published, plus an American edition and a translation into German!

The second edition of McAdam's Remarks on the Present System of Roadmaking, although claiming to be "carefully revised, with considerable additions," is identical with the first except for the addition of the author's "Directions for the Repair of an Old Road...," dated 1 February 1819, and several extracts from reports to the Bristol Turnpike Trust. A third edition was published in 1821 by Longman, Hurst, Rees, Orme and Brown. It is similar to the second, although there are added portions of the "Report from the Select Committee on

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3 Sidney and Beatrice Webb, The Story of the King's Highway (London, 1920), English Local Government Series, pp. 172, 174.

the Highways of the Kingdom: together with the Minutes of Evidence Taken before them" (1819). Much of the testimony quoted consists of evidence supplied by McAdam and his son James, together with their friends. Both the evidence and the formal Report are complimentary to McAdam's work and general ability.[4]

The fourth,[5] fifth,[6] and sixth[7] editions, published in 1821, 1822, and (again) 1822 respectively, are merely reprints of the third edition, varying from it in no respect. The seventh edition (1823) adds a preface and the Report (together with extracts from the evidence) of the Select Committee of 1823.[8] An eighth edition (1824),[9] the fifth to be published

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4 Copies of the second edition are in the Edinburgh Public Library, the British Museum, and the New York Public Library. Copies of the third edition are in the Library of Congress, the New York Historical Society, the New York Public Library, the Library of the Institute of Civil Engineers, and the Institute of Highway Engineers (London).

5 Copies are in the National Library of Scotland, the British Museum, the New York Historical Society, and the New York Public Library.

6 Copies are in the Library of the Ministry of Transport (London), the Libraries of Glasgow, St. Andrew's, and Columbia Universities, the British Museum, and the New York Public Library.

7 Copies are in the Library of the Institute of Civil Engineers and the New York Public Library.

8 The present writer possesses a copy of this edition; copies are also in the Library of Congress, the British Museum, the Edinburgh Public Library, and the Library of Columbia University.

in a four-year period, duplicated the seventh, and a final edition was published in 1827,[10] omitting the dedicatory remarks so complimentary to the Bristol Trust! This omission is easily accounted for: between the publication of the eighth edition and the ninth occurred the beginnings of the acrimonious controversy between McAdam and a segment of the Bristol Trust, following which McAdam resigned his position. It is no wonder he was unable to bring himself to dedicate his ninth edition "most respectfully" to the commissioners so widely known for their "firmness and patriotic zeal...."

It is interesting also to note that not only were nine British editions printed between 1816 and 1827, but from the third an American edition was printed in Baltimore, Maryland, in 1821,[11] and a German translation was prepared from the seventh edition in 1825, and published in Darmstadt.[12]

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9 A copy is in the Bristol Public Library, and bears an inscription by McAdam dedicating his work to the Bristol Philosophical and Literary Institute (1826). Copies are also to be found in the New York State Library (Albany) and the New York Public Library.

10 Copies are in the British Museum, the Library of the University of Glasgow, and in the New York Public Library.

11 Copies are in the Library of Congress and the New York Public Library.

12 Published by F. Vogel.

Furthermore, almost every volume examined by the present writer (including at least one copy of each edition) has apparently been the property of a highway engineer or road trustee; e. g., the British Museum copy of the eighth edition was at one time the private possession of Henry W. Watson of the Bombay Engineers. This little handbook seems to have been the bible of highway engineers and turnpike officials for many years. Although his proposals and accomplishments captivated the popular imagination, evoking at first uncritical praise, the inevitable reaction set in about 1824 or 1825, and McAdam found himself the butt of many jokes and the object of numerous lampoons. Cartoonists, too, found him an intriguing subject.[13]

The German edition of Remarks on the Present System of Roadmaking made the name McAdam a by-word in the German states, provoking such works as S. Schele's Vorlesungen über J. L. Macadam's Chauseebaustystem.[14] In France, R. L. Edgeworth's Essay on the Construction of Roads and Carriages (1813, second edition 1817) was translated into the French as Essai sur la construction des routes et des voituires, augmenti d'une notice

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13 See D. Ballen, Bibliography of Roads (London, 1914), p. 207.
14 Stuttgart, 1827.

dire dans la compétition. Edouard Pontis.

LE CENTENAIRE DE MAC ADAM

C'est en septembre 1837 que les Parisiens inaugurèrent «le bitume»



Un projet de monument à Mac Adam, d'après un humoriste de l'époque.

(LIRE L'ARTICLE EN PAGE 7)

CARTOON IN UNIDENTIFIED FRENCH NEWSPAPER, 1937

sur le système de MacAdam in 1828.[15] France officially adopted the McAdam system two years later on the proposal of Poloncau.[16] In 1834 Claude Jean Baptiste Alexandre Berthault-Ducreux published in Paris De l'art d'entretenir: on, comparaison de trois systèmes d'entretien, savoir: (1) celui de MacAdam, (2) celui généralement usité en France; (3) celui de M. Berthault-Ducreux. As late as 1861 McAdam interested Auguste Jones sufficiently to elicit from him a volume about macadamized roads, including in his work replies by William McAdam (apparently a grandson of the founder of the roadbuilding dynasty), Baron Haussmann, and C. D. Versluys.[17]

It was in Great Britain, of course, that McAdam was the subject of the liveliest discussions, and much paper and ink was utilized in both favorable comment and violent denunciation.[18]

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15 Translated by M. Ballyet from the second edition (Paris, 1828).

16 "Empierrement," La Grande Encyclopédie (Paris, 1886-1902).

17 Observations sur les routes dites MacAdam... suivies d'une réponse de W. MacAdam... à M. Haussmann... et à M. C. D. Versluys (Brussels, 1861).

18 See below, pp. 462-467.

McAdam composed three other little volumes which, while enhancing his fame as a road administrator and engineer, and widening the circle of his influence, are as devoid of literary excellence as his Remarks on the Present System of Roadmaking.

The first of these publications, entitled A Practical Essay on the Scientific Repair and Preservation of Public Roads, was published in 1819. The title page indicates McAdam "presented" his work to the Board of Agriculture and Internal Improvement, whose printer was B. Macmillan. In identical form and in the same year, the text of this volume was included as Essay Number 15, "Communications on the Making and Repairing of Roads," in Prize Essays on the Husbandry and Internal Improvement of the Country: Being Communications to the late Board of Agriculture.[19]

Of the motives which prompted the publication of A Practical Essay nothing is known, although it would seem fair to assume that McAdam was always interested in an ever-wider dissemination of his views; that he most certainly desired the continued friendship and patronage of the Board of Agriculture,

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19 London: Sherwood, Gilbert, and Piper, pp. 270-285. The only known copy of this volume is in the British Museum.

even in its last days; and that this further publication would increase his stature in the eyes of the Treasury to whom he was submitting his first memorial asking for governmental compensation.[20] A Practical Essay was merely another poorly-organized presentation of the views McAdam had frequently expressed on previous occasions in both written and verbal form. Included also in the separately published edition were lists of trusts which had employed him and his sons, flattering excerpts from the minutes of the Bristol Trust, and complimentary quotations from letters addressed to him by trusts which he had advised. No further editions of this work are known, although the Quarterly Review of May 1820 called attention to the fact that this "memorial to the Board of Agriculture... was pretty widely circulated last summer."[21]

Although editions three to eight of his Remarks on the Present System of Roadmaking were issued in the meantime, McAdam published nothing further until 1825, when two works made their appearance. The first of these, Narrative of Affairs of the Bristol District of Roads, has already been noted, for it was published as a defense at the time of the Bristol

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20 See below, Chapter XI.
21 Vol. XXIII, p. 97.

controversy.[22] The second, dedicated to Sir Thomas Baring, M. P., was entitled Observations on the Management of Trusts for the Care of Turnpike Roads, As Regards the Repair of the Road, the Expenditure of the Revenue, and the Appointment and Quality of Executive Officers. And Upon the Nature and Effect of the Present Road Law of this Kingdom, Illustrated by Examples from a Practical Experience of Nine Years.[23] As suggested by the lengthy title, McAdam's chief concern in this book was turnpike trust administration in its various phases. In general his conclusions were identical with those he set forth in his testimony before various Select Committees of the House of Commons, in his several memorials, and in previous publications. In addition to the forty pages of text, there are 108 pages of appendixes, consisting of excerpts from the minutes and other records of the Bristol Trust (1815-1824). As in the case of the Narrative of Affairs, the tone of this volume is definitely apologetic, purporting to reveal the ingratitude of the Bristol Trust in seeking to discharge a faithful and self-sacrificing public servant.

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22 See above, pp. 250-260.

23 London: Longman, Hurst, Rees, Orme, Brown and Green. Copies are known to be in the Library of Congress, the National Library of Scotland, and in the libraries of the Universities of St. Andrew's and Glasgow.

According to McAdam, the first trust after Bristol that applied to him for advice was Bath, in neighboring Somersetshire.[24] Bath is located slightly less than fourteen miles from Bristol. The Burlington Road, one of McAdam's Bristol Trust turnpikes, extended nine miles from Bristol in the direction of Bath, and connects with the five-mile stretch of road into Bath which the Bath Turnpike Trust supervised. Doubtlessly familiar, therefore, with the improvements effected by the new Bristol General Surveyor, the trustees at Bath determined to solicit his aid.

A resolution was adopted by the Bath Trust on 7 December 1816 requesting the attendance of McAdam at their next meeting. Consequently, he met with the Bath Commissioners on 21 December 1816, and was officially asked to survey the roads of the trust, reporting thereon "as to the best means of effecting the future repair of the roads and general management of the funds and concerns of the Trust;..." McAdam related to the 1823 committee that he spent about twenty-five days at Bath, accompanied by one of his sons, a sub-surveyor from Bristol, and

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24 Parliamentary Papers, 1820 (301) II.301. McAdam made this statement to the Committee on 5 July.

several workmen.[25] Utilizing a phaeton, the party several times traveled over the forty-nine miles of turnpike road belonging to the trust. They "pitted"[26] the road at regular intervals, and inspected the rock quarries in the area. According to both McAdam and George, this inspection was performed gratuitously. The trustees did pay, however, fifty guineas to cover the expenses incurred by the three executives, and four pounds fourteen shillings for the workmen.

On 15 January 1817 McAdam submitted to the Bath Trust a written report, which was printed and formally considered at a meeting held on 15 February the same year. The trustees were pleased with his recommendations, and resolved "that the principles as stated in such report, and Mr. McAdam's system of road-repairing, be adopted and carried into practice on the several roads under this trust."[27] They further resolved to offer the post of surveyor to McAdam at their next meeting. When they met again on 15 March, however, a "dark-horse candidate" appeared in the person of a local roadbuilding enthusiast,

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25 The narrative at this point is based largely on the testimony of Philip George, the Clerk of the Bath Trust (7 June), and McAdam (7 July), both before the 1823 Select Committee, Parliamentary Papers, 1823 (476) V.53.

26 When a road is "pitted," samplings of its strata are obtained.

27 Testimony of Philip George, 7 June, op. cit.

Benjamin Wingrove. Wingrove, a trustee of the Bath Trust, had apparently been quietly enlisting support for his candidacy, for on a roll-call vote with more than one hundred trustees present he defeated McAdam by a margin of "one or two [votes]." Wingrove commenced his duties on 25 March at an annual salary of £350, and, strangely enough, was ordered to conform to the recommendations embodied in McAdam's report to the trust. Neither the aspirants for the post nor Philip George, the clerk, has left the solution to the puzzling problem of why McAdam, whose report was favorably received, was rejected by the trust he so earnestly desired to direct.

McAdam was too incensed to let the matter drop. He wrote a letter of protest to the Bath commissioners, rehearsing the events of the preceding three months.[28] He had learned, he wrote to the trust, that just after offering his services on 15 February, "another gentleman" (Wingrove) had asked for the job, inferring in his application that McAdam would be unable to fulfill his obligations to both Bristol and Bath. McAdam felt that having inspected and reported on the Bath Trust, and in view of the unanimous adoption of his report, he was

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28 This letter (15 March 1817) was printed as Appendix O in Parliamentary Papers, 1823 (476) V.53.

"identified with their future proceedings in a manner from which [he could not] extricate [himself]." He declared that his reputation was at stake, and asked that he either be given the post of general surveyor or that a reconsideration of the motion adopting his system be effected. The trust saw fit to take no action whatsoever, and thus McAdam was denied personal control of this large trust embracing the environs of the renowned city of Bath, "justly esteemed the most elegant town in England."

The Bath episode, which came early in his career as a surveyor, was a severe jolt for McAdam. Although checked temporarily, his restless ambition was by no means thwarted, as later developments amply reveal. This matter came up for discussion in 1823 because the members of the Select Committee desired to know the details of McAdam's career. In 1820 as well as in 1823 he called attention to the invitation by the Bath Trust as an indication of the rapid spread of his system. Wingrove was invited to appear personally before the committee in 1823, and when he gave testimony which cast aspersions on McAdam's work and influence, McAdam was compelled to defend himself. This he did by counterattacking. Wingrove, he asserted, was spending £193 per mile per annum on the Bath roads, whereas his (McAdam's) estimate in 1817 called for an

expenditure of only £112. He also revealed that a committee of the Bath Trust had in 1821 been empowered to inspect the accounts of the trust. These were found to have been so laxly maintained that a correct analysis was impossible. Many oversights and irregularities were noted, amounting in all to £495; and Wingrove personally was in arrears to the trust in the amount of £1,018. In May 1823 the trust resolved that the investigation had subjected Wingrove

> to our animadversion, but upon his explanations, we are inclined to attribute those irregularities partly to the great labour of his office, partly to domestic affliction, and principally to his trusting others /with/ what he himself ought to have performed, but certainly not to any dishonourable or interested motive....[29]

The Bath area roads finally were delivered to the superintendence of McAdam in 1826, when on 11 March the trustees appointed McAdam and his son Loudon as Joint-General Surveyors at a salary of £600 per annum. Their appointment was for a five-year period, with power to appoint deputies and sub-surveyors at discretion.[30] They replaced "Messrs. Wingrove" (father and son), and promised to keep the roads in repair for an annual expenditure not exceeding £7,500.[31] Thus it was that the

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29 Ibid., Appendix N.
30 Felix Farley's Bristol Journal, 18 March 1826.
31 Bristol Mirror, 18 March 1826.

seventy-year old McAdam persisted in returning to the arena where nine years previously he had been bested. He never forgot a battle; he never admitted a defeat -- indeed, he rarely suffered one!

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McAdam's methods, which so quickly spread to Bath in 1816-1817, were in far wider demand by 1818. As has been suggested, by February 1819 a total of eleven trusts had applied to him for advice and had followed his instructions, while by the same date each of his elder sons, in the capacity of disciples and proteges, directed the affairs of seven others.[32]

In 1817-1818 there occurred an interesting extension of his views into Sussex.[33] The Earl of Chichester, one of the Postmasters General, heard of McAdam's innovations in Bristol. His informant was Sir John Cox Hippisley. At the moment he was especially desirous of improving the wretched roads in the area of his estate in Sussex. Upon invitation McAdam visited him

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32 See above, Pp. 270-271.

33 There exists considerable information about McAdam's connection with this county. However, the Honorary Curator of Deeds, Sussex Archaeological Society, Lewes, writes that his society is in possession of very few turnpike trust records, and that there are only one or two insignificant references to McAdam (letter to the author, 14 June 1949).

several times in Sussex in 1816 or 1817 (the Earl was uncertain as to the exact date), whereupon McAdam propounded his views and inspected the roads of the surrounding countryside. Completely captivated by the enthusiastic general surveyor from Bristol, Chichester testified in 1823 that he and McAdam thereupon determined that the crying need was for expert management of trusts by "a man of science and a gentleman, in order to correct the sort of neglect and jobbing that was too frequent." The second great need they noted, said Chichester, was the lack of an efficient mode of "manufacturing the road." In several long conversations McAdam explained his work at Bristol, evidently with great success, for the testimony of this powerful Earl follows almost verbatim the pattern set forth by McAdam many years before.[34]

The Earl of Chichester immediately set about to secure the adoption of McAdam's system by the Lewes (Sussex) Trust, of which he was a leading member. This trust embraced five roads totaling more than ninety-seven miles, all within the bounds of Sussex. He proposed the administrative unification of all these roads under a competent general surveyor recommended by

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34 Testimony delivered before the Select Committee on McAdam's Petition on 3 June 1823. See Parliamentary Papers, 1823 (476) V.53.

McAdam. Although the Act of Parliament establishing the trust did not authorize such a union, the trustees agreed to employ a supervisory executive, and to meet annually to hear his report and to give him instructions. The finances, they decided, should be kept in independent accounts.

McAdam reported to the Lewes Trust in September 1817, submitting his views, and was requested to send a trained surveyor to take over the five districts. Later he sent a man named J. W. Campbell, who gave satisfactory service until the time of his death a number of years later.[35] Chichester related to the Select Committee of 1823 that by following the recommendations of McAdam, the trust was enabled to "lift" the worst parts of the Lewes area roads and rebuild them in a satisfactory manner. The country people of the county were much amused at the process, and laughed at the small "breaking hammers" and the other specialized tools used by McAdam. At first even the workmen were so prejudiced against the inauguration of his new methods that he was obliged to send a foreman from Bristol to give them instructions and to insist on compliance with his methods. The

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35 This particular information was culled from the papers of the Lewes-Eastbourne Turnpike Road, located in the archives of the Sussex Archaeological Society, mentioned above. Nothing further is known about Campbell, whose name identifies him as a Scotsman.

workmen demanded one shilling per yard for breaking stone, but were delighted with one-half crown per diem -- which averaged fourpence per yard! The lowest average figure for McAdam's "lifting" operation was three half-pence per yard.

Chichester told the Select Committee that from the very first the adoption of McAdam's methods proved beneficial. Former "Doubting Thomases" among the trustees were the first to advocate raising Campbell's salary from £150 to £300 per annum, a token of approbation which was ratified. Statute labor was reduced within a short period as annual maintenance expenses declined. The debt neither increased nor declined. Thrift among the three to four hundred workmen was encouraged by paying them a weekly subsistence wage, the balance being withheld until the end of the month. Six shillings each per week provided each laborer with necessities, while the balance due each (nine to twelve shillings) was paid the last of each month.

Asked to compare expenses prior to the institution of McAdam's system with costs under McAdam, Chichester pleaded inability on the grounds that no accounts were available for the pre-McAdam era. McAdam had inaugurated the first accounting procedures. In general, he added, one gentleman "provided for" (supervised) five miles, another for five miles of road, and so on. "And at the general meeting there was a sort of scramble

for a division of the tolls and road; now the account is settled quarterly by a committee of gentleman upon each road," and at the annual meeting the accounts were finally audited.

The available source material indicated that McAdam's views were heartily endorsed by the Lewes Trust. The enthusiastic support given him by the Earl of Chichester in 1823 strongly substantiates this fact. Typical of the approbation of the trustees is the series of resolutions unanimously passed by the Lewes Trust on 28 September 1818, congratulating Campbell for his work, and expressing appreciation to Chichester for turning attention to "Mr. McAdam's system, by which the Roads have been so much improved, and from which the country in general is likely to derive so much benefit."[36] In 1820 McAdam rather immodestly informed the Select Committee that nine Sussex trusts had adopted his recommendations and had thus "had their roads put into complete order."[37]

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36 These resolutions are printed in McAdam's A Practical Essay, p. 14.

37 5 July 1820, Parliamentary Papers, 1820 (301) II.301. It is not known what McAdam meant by claiming to have influenced nine Sussex trusts. All that is now known about his relation with the county pertains to the five roads whose supervision is described above.

Bath and Lewes were not by any means alone in demanding the services of McAdam. In 1817 or 1818 he was in correspondence with the Exeter Turnpike Trust, whose trustees he visited and advised.[38] Nearby Plymouth heard of the improvements at Exeter and called for McAdam's aid. Neither he nor his sons were available to serve as surveyor at Plymouth at the time, but upon request he trained a man for the position.[39] Simultaneously (January 1818) he inspected and reported on the roads of the Tavistock Trust (Devonshire). In both cases his recommendations were adhered to, although not even his expenses were fully paid.[40]

Later the same year McAdam was called to Wales for consultation with the trustees of the Cardiff Turnpike Trust. On 5 December 1818 Evan Thomas, chairman of that trust, wrote officially to McAdam, saying,

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38 Testimony of McAdam before the Select Committee on 5 June 1823, op. cit. A bomb gutted the City Library, Castle Street, Exeter, in 1942, and according to N. S. E. Pugsley, the Librarian, surviving records are few and contain no mention of McAdam, although a grandson (Christopher) was General Surveyor of the Exeter Trust between 1829 and 1838.

39 Testimony of McAdam before the Select Committee, 5 June 1823, op. cit.

40 Testimony of McAdam before the Select Committee, 5 July 1820, op. cit.

/I wish/ to convey to you their Thanks for the very handsome manner in which you have afforded them your valuable time and attention in coming to inspect their line of Road, and more particularly for the opportunity you have presented to them, of procuring practical instructions for a District Surveyor under your very able superintendence.

This letter was delivered by Edward Bevan, the newly-appointed surveyor of the trust who had been designated to receive instruction from McAdam. The trust hoped its surveyor would in due course obtain from McAdam "a certificate of competency."[41]

Also in 1818 McAdam counseled the Epsom and Ewell Trust (Surrey), receiving their vote of appreciation and commendation on 22 December of the same year.[42] The Earl of Chichester likewise praised McAdam for this work in Surrey.[43] James McAdam assumed responsibility for this trust on the recommendation of his father, and was apparently giving satisfactory service in 1820. He had lowered the tolls on agricultural wagons from two shillings eight pence to one shilling, and was levying no statute labor, an achievement which rendered him popular with the rural classes.[44]

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41 Printed in McAdam, A Practical Essay, p. 15.

42 Letter from John Everest, Clerk of the Trust, to McAdam. This letter is printed in McAdam, A Practical Essay, p. 14.

43 Testimony before the Select Committee, 3 June 1823, op. cit.

44 Testimony of James McAdam before the Select Committee, 29 May 1820, op. cit.

At this time McAdam was called back to Sussex, where the Staines Turnpike Trust, threatened with indictment by the General Post Office on account of its deplorable roads, was in desperate need of assistance. Mail coaches using these roads were required to add two additional hours to their schedule, and still ran ten to twenty minutes late. Lord Bamber and Francis Freemantle, leading members of the Staines Trust, promised to secure the services of McAdam if the postal authorities would stay legal action. The Earl of Chichester in recording the resulting improvement stated that "accordingly the road was put into perfect order, and I believe there has never been any complaint since...."[45] Superintendent of Mail Coaches Charles Johnson wrote subsequently that the mail which previously had been exasperatingly late was passing exactly on time from Staines to Bagshot.[46]

McAdam was back in Wales in late 1819 consulting the trustees of the Radnorshire Turnpike Trust, whose "grateful thanks" for his helpful recommendations were recorded in a minute of

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45 Testimony of the Earl of Chichester, 3 June 1823, op. cit.

46 Letter of 8 December 1819, printed in the Report of the Select Committee, 1823, op. cit. Johnson's position was in the Post Office.

20 April 1820. He suggested that the trust name D. A. Rutherford as surveyor. This was done forthwith, and Rutherford granted a salary of £150 per annum.[47]

The McAdam methods which spread with such rapidity in England and Wales by 1819 were in demand in Scotland. In June of that year the large and wealthy Edinburgh (County) Turnpike Trust invited him to inspect the 273 miles of turnpike road supervised by them. He reported formally to the trust in August, and on his recommendation his nephew, Colonel James Shaw, was appointed general superintendent, a post he held only two years.[48]

One year later Scotland again sought the advice of its famous native son. General Sir James Stewart of Coltness wrote to McAdam on 10 June about the roads of Lanarkshire. Thomas Telford, the distinguished and versatile engineer who was McAdam's only serious rival to absolute supremacy in the highway engineering field, was already engaged in surveying two lines of road in the area. One of these was the Lanarkshire portion

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47 In reply to the author's query which was printed in Notes and Queries, W. H. Howse of Presteigne replied that he had examined the Radnorshire Turnpike Trust Minutebook, and found there recorded the resolution to consult McAdam (6 November 1819) and the other facts cited in the text above (Notes and Queries, CXCIV, no. 6, p. 130).

48 For the full narrative, see Chapter X below.

of the important Carlisle to Glasgow road. Stewart did not wish to see the parliamentary appointment go to Telford, but did hope for a parliamentary grant-in-aid for the project. He wrote that he and his associates on the trust wished to avoid the expensive construction of a "bottoming" (foundation) of heavy, paved stones generally recommended by Telford.[49] McAdam's reply indicated he was very reluctant to interfere in the matter, although he and Telford were absolutely at odds on this point. A paved foundation, costing £850 per mile, is not only totally unnecessary, he averred, but it does not provide the necessary elasticity which makes a road durable.[50]

Although McAdam expressed to General Sir James Stewart the "delicacy of /his/ making even the slightest interference," he had suffered a change of mind within three days, for on 18 June he addressed himself on the subject to another Scot, the powerful Henry Dundas, Lord Viscount Melville, the political "boss" of Scotland and influential First Lord of the Admiralty.[51]

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49 A copy of this letter was enclosed in an original letter from McAdam to Lord Melville, 18 June 1820, both deposited in Collection "F," Bridges, Canals, Roads in Scotland, 1782-1841, VIII (Roads), Folder 6 (Lanarkshire Roads), Items 1 and 2, British Library of Political and Economic Science, London.

50 Ibid., Item 3. A copy of this letter was enclosed with McAdam's to Melville.

51 This is the original letter mentioned in footnote 49.

After the usual flattering introduction, McAdam advised Melville that unnecessary and expensive measures of construction operated both to deter investment in road bonds and as an excessive burden upon agriculture and commerce. Without mentioning Telford by name, he implied that he was the greatest offender in this matter, and ventured bold to intimate it would be better to utilize the money elsewhere than to bestow a government grant on the two Lanarkshire roads. Unfortunately, the sequel to this discussion is not known. It is interesting to note, however, that the Dumfriesshire section of the Glasgow-Carlisle road is constructed "with smaller foundation material more on the McAdam principles" -- except near the county boundary of Lanarkshire, where the usual Telford bottoming is in evidence.[52] Apparently, Telford got the Lanarkshire contract.

In his letter to Lord Melville, McAdam mentioned the enclosure of a copy of his most recent literary effort, a "Communication to the Board of Agriculture on the subject principally of making new Roads." Of the many "memorials" he is known to have composed, only this one has escaped positive

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52 This is the observation of James Robertson, County Road Surveyor of Dumfriesshire, expressed in a letter to the author on 22 December 1948.

identification. There exists, however, in the Library of the Institute of Civil Engineers (London) a printed copy of an undated document by McAdam entitled "Memorial on the Subject of Turnpike Roads." Internal evidence permits the date 1819 to be definitely established, and although it is possible that in his letter to Melville he was referring to his Practical Essay which was published the same year, it seems more reasonable to assume that the "Communication" to which he alluded was the "Memorial on the Subject of Turnpike Roads."[53]

This Memorial is unquestionably McAdam's finest literary effort. It is brief (eleven pages, approximately quarto size), and cohesive in organization. In style it is lucid and interesting, an unusual achievement for McAdam. Its chief topic is a recital of its author's prolonged efforts to ferret out scientific information concerning road construction. It laments the confinements to which public indifference and the apathy of turnpike commissioners limited inquiry into the subject. Again, it calls for the training and appointment of intelligent surveyors. From two causes,

> the want of all scientific principles in the construction of roads, and the want of education, rank, and character in the officers... have proceeded the proverbially bad state of the

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53 Tracts, 4vo., IV, no. 10. This is the only copy known to be extant.

roads of Great Britain; the enormous amount of the expenditure; and the consequent creation of a debt, which threatens in a few years to absorb the whole road funds for payment of interest.[54]

McAdam advised acceptance of his system to remedy the first evil; and to enforce both adherence to a scientific plan of construction and maintenance and the observation of efficient administrative procedures he strongly recommended general parliamentary supervision and control through a public ministry, perhaps the General Post Office.

-8-

During the Coaching Era (1815-1836) the name McAdam appealed not only to road trustees and the general public (both literate and otherwise), but to parliamentarians and to those public officials in Westminster who were interested in improved communications and transportation. Lords and Members of the House of Commons alike wished for smooth, rapid, and reliable transportation throughout the kingdom -- if for no reason other than to give them ready access to and egress from the capital! Irish Members of Parliament were especially vocal in demanding that the Holyhead Road be modernized. Scottish Members were insistent that the Great North Road and the

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54 Ibid.

Carlisle-Glasgow Road be improved. Thomas Telford, already well-known for his Highland Roads improvements as well as for his versatile achievements in other engineering endeavors, was called on for advice and surveys, and in the case of the Holyhead Road and the Glasgow-Carlisle Road, for actual supervisory work.[55] And although most of McAdam's work lay with the semi-autonomous turnpike trusts, his advice and assistance was constantly sought from 1819 onwards.

In 1819, 1820, and 1821, the House of Commons appointed Select Committees to investigate and report on the turnpike situation in England and Wales. McAdam did not testify before the committee in 1821, but in 1819 and again in 1820 he presented searching analyses of various aspects of the problem.[56] In 1820 his sons, William and James, presented their views, which were largely echoes of their father's known principles. The formal committee reports of both 1819 and 1820 show unmistakable traces of the influence of McAdam. In 1819, for example, a mere three years after McAdam was given his first professional appointment, the entire official report reflects the

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55 See Chapter XII below.

56 The reports and appendixes for these three years have been studied in detail. They are readily accessible in Parliamentary Papers, 1819 (509) V.339; 1820 (301) II.301; and 1821 (747) IV.343.

"system" propounded by him in Bristol and first published in the 1811 Memorial. Indeed, the Committee declared that the "considerations which influenced the appointment of the present Committee, [sic] avowedly sprung from the successful trial of an improved system of making roads [McAdam's system]...;" whereupon the committee proceeded to discuss that "system" in detail. The committee stated in part as follows:

> Mr. John Loudon M'Adam [sic] having for many years directed his attention, as a magistrate and a commissioner, to the improvement of roads, was induced to accept the situation of general surveyor of an extensive trust round the city of Bristol.
>
> The admirable state of repair into which the roads under his direction were brought, attracted very general attention; and induced the commissioners of various districts to apply for his assistance and advice.
>
> The general testimony borne to his complete success wherever he has been employed, and the proof that his improvements have been attended with an actual reduction of expense, while they have afforded the most useful employment to the poor, induce your Committee to attach a high degree of importance to that which he has already accomplished. The imitation of his plans is rendered easy by their simplicity, and by the candour with which he has explained them, though ability in the surveyor to judge of their application must be understood as an essential requisite.
>
> Your Committee have dwelt on this improved system of making roads, as a preliminary consideration to any alteration of the laws, being persuaded that it is of essential importance to adapt the law to new circumstances; that the first step requisite is to take effectual measures for ensuring the formation of good roads; and that their preservation afterwards, if proper principles for their repair be once adopted, will require fewer legislative regulations than former inquirers have deemed necessary.
>
> ...The concurrent testimony of all the witnesses examined by your Committee establishes the fact that the general state of the turnpike roads in England and Wales is extremely

defective, but at the same time proves that proper management is alone wanted to effect the most desirable reformation... the most improved system is demonstrated to be the most economical; that even the first effectual repair of a bad road may be accomplished with little, if any, increase of expenditure; and that its future preservation in good order will, under judicious management, be attended with a considerable annual saving to the public.

Each of McAdam's main principles was recommended, not as proceeding from him, but as emanating from the committee. These included the primary necessity of securing "superintending surveyors /of/ superior ability and experience," and the empowering of magistrates in quarter sessions "to appoint one or more surveyors general, who shall have the superintendence and management of the turnpike roads within the county, under the authority and direction of the Commissioners of the different trusts."

The 1823 Committee, "appointed to take into consideration the Petition of Mr. M'Adam, and to report to the House..." on his claim for further public compensation, was likewise favorably impressed by both the man and his achievements.[57] It commented on the improved condition of the roads which "in a great degree /may be/ ascribed to the ability, zeal, and indefatigable exertions of Mr. M'Adam,..." Furthermore, "Looking

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57 For a detailed discussion of the activities of this committee, see Chapter XI below. The outcome of McAdam's "Quest for Compensation" was three grants totaling £6,000.

to the result of these services as affecting the community at large; the increase of comfort, convenience and safety to the Public generally; the diminution of expense in the wear and tear of carriages of all descriptions; the reduction of horse-labour,... the relief /of/ the oppressive burthen of the poor rates...;" the reduction and in some cases the abolition of statute labor; the great benefit to all economic classes by more ready transportation and communication; and the free and rapid circulation of commercial capital -- these and other benefits derive from McAdam's innovations, grandly concluded the committee.

Further parliamentary recognition came to McAdam and his son James in regard to the annual statistical summaries which Parliament required of all turnpike trusts beginning in 1815.[58] The first general abstract embracing England and Wales was published in mid-1818.[59] Shortly thereafter McAdam was employed to complete the annual report, and to prepare it for submission to Parliament.[60] James McAdam served Parliament

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58 Act 55 George III, cap. 47. See also Act 1 George IV, cap. 95.

59 Ibid., "The County Totals extracted from the Abstract of Returns Relative to the Expense and Maintenance of Highways in England and Wales... presented 1 June 1818," Parliamentary Papers, 1818 (431), XVI.255.

60 McAdam stated this fact to the Select Committee on 28 May 1823. See Parliamentary Papers, 1823 (476) V.53.

in this capacity from 1827 until his death in 1852. During this period his office received all annual reports from the trusts, and served as a clearing house for instructions emanating from Parliament.

Although the evidence is not altogether conclusive, most commentaries on McAdam state that during Canning's short tenure as prime minister in 1827 McAdam was offered a baronetcy. He declined the honor, notes one writer, "possibly in consequence of his advanced age and on account of his small means."[61] It is established, however, that his son James was knighted by King William IV at Whitehall on 26 March 1834.[62]

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The General Post Office, to whom McAdam appealed for compensation during a five-year period (1819-1823), called on him for advice from time to time following his introduction to the Earl of Chichester in 1817. Rarely, however, did the postal authorities employ him in an official capacity. Their regard for his work was tangibly expressed by the endorsements they

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61 Thomas Salkield, "John Loudon McAdam, the Great Road-maker," East Hertfordshire Archaeological Society Transactions, Part III, 1901, pp. 312, 315.

62 Ibid.; also Gentleman's Magazine, VII (New Series), 1837, p. 101.

placed on his formal petitions for compensation for expenses he claimed to have incurred in the interest of improved highway transportation, and further by two warrants the department issued in 1820 -- each for £2,000 -- as partial reimbursement for these expenses.[63] Charles Johnson, Surveyor and Superintendent of Mail Coaches for the Post Office, wrote for him a letter of commendation on 8 December 1819, declaring that

> I feel myself well warranted in stating, that whenever I have found any thing done under Mr. M'Adam's immediate direction, or by his pupils, or even in imitation of his plan and principles, the improvement has been most decisive, and the superiority over the common method of repairing roads, most evident; and, as superintendent of mailcoaches, I have abundant reason to wish that Mr. M'Adam's principles were acted upon very generally.[64]

Although a consultant of the General Post Office after 1816 or 1817, it was not until 1822 that McAdam was actually employed for a specific task.[65] In that year he was sent to Lancashire to secure the satisfaction of a general desire in that area to accelerate the Liverpool Mail. He spent several

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63 For the narrative of this effort, see below Chapter XI.

64 Memorandum to Postmaster General, submitted as evidence to the Select Committee on McAdam's Petition, and printed as Appendix B, Parliamentary Papers, 1823 (476) V.53.

65 Testimony of Francis (later Sir Francis) Freeling, Secretary of the General Post Office, on 5 July 1820, before the Select Committee of 1820, loc. cit.

weeks there in May and June. The Post Office expected greatly improved roads as a result of his inspection and recommendations. One of the Postmasters-General stated in 1823 that McAdam's suggestions were followed, and that his organization planned to pay him for his services.[66]

McAdam's contacts with official and semi-official agencies were not limited to the numerous turnpike trusts and the General Post Office: he was frequently consulted by the Commissioners of New Street (London) and by many parishes throughout England. It is probable, furthermore, that his services were sought by the Trustees of Squares and the Trustees for Bridges (both in London), for in 1825 he told Parliament that neither of these agencies had ever paid him a penny.[67] It seems reasonable to assume that the list he presented to Parliament at that time included only those commissions and agencies he had actually advised, although this may not have been the case.

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66 Testimony of the Earl of Chichester before the Select Committee of 1823 on 3 June. See Report of the Select Committee of 1823, loc. cit.; also, letter from the Postmasters General to the Treasury, 6 February 1823, printed as Appendix K to the Report of the Select Committee of 1823.

67 Parliamentary Papers, 1825 (248) XX.149.

One of the most important pieces of work McAdam accomplished in spreading abroad his system relates to the consolidation of trusts in the area of metropolitan London.[68] Especially vociferous were those who complained about excessive tolls and gates; hardly less vocal were the grumblers about bad roads during the second decade of the nineteenth century. Barham has described the situation in graphic detail:

> An individual driving himself starts, say from Bishopsgate-street to Kilburn. The day is cold and rainy, his fingers are benumbed, his gloves soaked with wet, his two coats buttoned up and his money is in the pocket of his tight pantaloons, while he himself is late for dinner. He has to pull up in the middle of the street in Shoreditch and pay a toll: as he means to return he takes a ticket, Letter A. On reaching Shoreditch Church he turns into the Curtain-road, pulls up again, drags off his wet glove with his teeth -- his other hand being fully occupied with the reins and whip -- pays again, gets another ticket, no. 482, drags on his glove, buttons up his coats, and rattles away into Old-Street-road. Here he is stopped at another gate; more pulling and poking, unbuttoning and squeezing; eventually he pays and takes another ticket, Letter L. The operation of getting all to rights has to be gone through, and is not repeated until the driver reaches Goswell-street-road; here he performs all the ceremonies already described a fourth time, and gets a fourth ticket, no. 732, which is to clear him through the gates in the New-road as far as the bottom of Pentonville-hill. Arrived there he performs the same evolutions and procures a fifth ticket,

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68 The only satisfactory account of this development is found in William T. Jackman, The Development of Transportation in Modern England (Cambridge, 1916), I, pp. 279-283. Jackman's scholarly but plodding study is an accurate survey of the development.

> Letter X, which is to clear him to the Paddington Road... On reaching Paddington gate he pays afresh and obtains a ticket, no. 691, with which he proceeds swimmingly until stopped again at Kilburn to pay a toll which would clear him all the way to Stanmore if he were not going to dine at a house three doors beyond this very turnpike, where he pays for the seventh time and obtains a ticket, Letter G.[69]

Barham was by no means a voice in the wilderness. "X. Y.," writing in 1815, urged the consolidation of trust authorities near London into larger districts.[70] Furthermore, he persuasively argued against the excessive number of turnpikes located in the metropolitan area. While supporting the general principle that the road-users should bear the costs of road construction and maintenance, "X. Y." felt the system as practiced was wasteful in the extreme, as well as absurd and unjust. He claimed knowledge of twenty toll gates within six miles of London on the ten principal roads. Each required the attendance of two able-bodied attendants, whose average annual salary was £50. The sum of £3,000 was thus monopolized each year in nonproductive employment on roads crying for more expert attention. Repairs on these much-traveled roads required £100 per

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69 R. H. Barham, Life of Thomas Hook (London, 1849), I, p. 61.

70 This topic is the theme of Letter V, pp. 36-43, in the pamphlet by "X. Y." entitled Eight Letters Concerning the Pavement of the Metropolis and the Adjoining Turnpike Roads (London, 1817). The copy examined is in the Library of the Institute of Civil Engineers.

mile per annum. A total of £9,000 is thus required, he lamented, for the annual upkeep of a mere sixty miles of metropolis roads.[71] Letter VII in the same series proposed the consolidation of the numerous metropolitan trusts and the levying of additional rates on those inhabiting (not owning) land along the roads or renting lands having an "outlet" to the main roads. This novel plan, claimed "X. Y.," would result in the abolition of toll gates and the introduction of "intelligent and uniform administration of the Roads around the Metropolis." -- As far as is known, "X. Y.'s" advanced ideas on this subject are the earliest concrete proposals made in England.

Writing almost contemporaneously with "X. Y.," McAdam in his first edition of Remarks on the Present System of Road-making lamented the extravagance of the turnpike system and recommended the establishment of "some central control over the District Commissioners...."[72] A General Road Act, he thought, with countywide administration (like that already operative in Scotland) would be best. Parliament would be wise to control and regulate the expenditures of all trusts, requiring an annual accounting from each.[73]

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71 Ibid., Letter VI, pp. 44-50.
72 In the "Advertisement," pp. vi-vii.
73 Ibid., p. 26.

Later, as McAdam faced the stern realities of the situation throughout the kingdom, he urged stronger measures, especially in the region of the capital. Before the Select Committees of 1819, 1820, 1823, and 1825 he pressed the matter vigorously, not solely as a matter of public policy, but as a part of his general program of consolidation for the promotion of his personal and familial ambitions. In both 1819 and 1820, the Select Committees upon observing the "defective state and injudicious management of the roads round the Metropolis," strongly recommended that by special legislation Parliament unite all trusts within a ten-mile radius under one set of commissioners. This move, they decided, would not only result in better and more economical roads in the one locale, but would set an excellent example for the entire kingdom.

Perhaps the strongest and most specific recommendations McAdam made on the subject of the amalgamation of turnpike trusts are to be found in his 1819 "Memorial on the Subject of Turnpike Roads."[74] McAdam concluded that general satisfaction would never be attained until the inspection of the trusts was committed to a governmental department, most logically the General Post Office, which should be empowered to suspend

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74 Pp. 8, 9. A general discussion of this memorial is found on pp. 362-363 above.

corrupt and incompetent officials and to require strict financial accounting.

Of course this trend, voiced by "X. Y." and McAdam, was but a part of a general stirring of the public pulse. Thomas Telford and his Holyhead Road experiment had provided a fine example of the advantages of regional consolidation combined with efficient, professional management. Sir Henry Brooke Parnell in his testimony before the 1820 Select Committee declared that the great improvement in the Holyhead Road was due largely to the merger of trusts that had been effected and to the proficiency of his friend Telford. Because of this successful experiment he urged the committee to reiterate the proposals made in 1819 regarding consolidation in the region of the metropolis. A bill effecting this proposal (which McAdam had likewise suggested to the same committee) was proposed, but its opponents effectively tabled the measure.[75]

In 1821 the Select Committee again fathered a consolidating bill. In their report they disavowed any attempt to patronize McAdam in the matter -- a motive of which they must have been accused!

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75 See Hansard, Parliamentary Debates, N. S. II, 123 (30 June 1820). Sumner opposed the bill, while Gilbert and Ridley spoke in its favor.

By 1825, however, under steady pressure from McAdam and other reformers, disgruntled private citizens tired of paying tolls, and a growing number of Members of Parliament, Parliament took action. Lord Lowther spoke vigorously on behalf of the necessity for a select committee solely dedicated to the one subject, and reasoned that nothing short of consolidation could effectuate the desired economies and improvements. His arguments were for the most part paraphrases of views McAdam had long held. That McAdam's influence was suspected there can be no doubt, for Sir Edward Knatchbull, an untiring critic of McAdam, quickly took the floor when Lord Lowther concluded his speech. He professed to concur in the necessity for action, but declared his unequivocal opposition to any attempt to put the consolidated trust in the hands of the government or under the superintendency of McAdam. This latter course, he was convinced, could lead only to corruption and jobs, "which he always had opposed!"[76] Holme Sumner, who opposed the measure in 1820, reluctantly favored the motion, as did Joseph Hume, John Maberly, and Sir Thomas Baring. The motion carried.

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76 Ibid., XII, 529-531 (17 February 1825). It was this same member who two months later was in the van of opposition to the government-sponsored motion to make a final grant of £2,000 to McAdam; ibid., XIII, pp. 593-599 (13 May 1825). It is not known whether he opposed "corruption" or "jobs" -- perhaps both.

"The Select Committee on Metropolis Turnpike Trusts, etc." was chairmanned by Lord Lowther and directed to inquire into the finances and management of the several trusts within a ten-mile radius of London.[77] Upon examination the committee discovered that there were numerous evidences of extravagance and inefficiency in the Middlesex accounts. Study of other trusts revealed a sordid tale of confusion and gross mismanagement, although some improvement was apparent in the years since 1819. Telford's Holyhead Road Report of 1824 was cited to illustrate conditions in the metropolitan area, e. g., Highgate and Hampstead Trust.

To ascertain the actual physical state of the metropolitan roads the committee employed McAdam and Thomas H. Cook, who was Surveyor of Roads and Pavement for the Parish of Mary-le-bone. These two reported by letter on 28 March 1825 that they had carefully inspected the pertinent roads, and had found them soft and uneven, full of holes and ruts. Ignorance, negligence, and great inconsistency in management were blamed. During their survey, they noted, never once did they meet with a surveyor: none was on the roads.

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77 "Report from the Select Committee on Metropolis Turnpike Trusts, etc.," Parliamentary Papers, 1825 (355) V.167.

McAdam testified at length before the committee on 28 March and again on 18 April. James McAdam and one Stevenson appeared before the committee on 3 March, as did Cook on 28 March. Each of these men urged speedy consolidation of the trusts according to McAdam's principles. The senior McAdam's testimony constituted a charge that toll-collecting was very expensive, vexatious, and undesirable. He urged that one gate be placed at some distance from the City for every six currently installed.[78] He recommended that a stronger material be imported for use as road metal, and that inasmuch as pavement will not last even a twelvemonth in London, metaled roads be gradually substituted therefor. Finally, he would consolidate the metropolitan trusts, dividing them into two subdivisions, each of which would require five sub-surveyors over whom an inspector would be placed. Overall supervision would be vested in a general surveyor. He made detailed reference to the various experiments and practices in Bristol, Edinburgh County, Bath, and Exeter.

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78 McAdam deemed the inconvenience of the gates a greater evil than the expense. He urged "setting the gates round the town, in a circle several miles out." The only alternative improvement he could visualize was the abolition of all gates and the levying of small rates on roadside houses.

McAdam's testimony and report were clear and authoritative. A study of the transcript of the "Minutes of Evidence" makes it readily apparent that his counsel was heard with respect. Certainly the formal committee report embodied the views of McAdam in detail, even quoting from his survey at length with full approbation. With minor modifications the Report of the Select Committee was enacted into law, establishing the Metropolis Turnpike Trust which provided metropolitan London with its channels of highway communication from 1827 to 1872.[79]

It is concerning this period in McAdam's career that a curious and unfortunate historical error has been told and retold. It is not that other palpable errors concerning McAdam have not been made, for at least a dozen could be cited; but this misconception has been repeated so frequently that most "authorities" have carelessly recorded it as fact. The error, which may be detected so easily, is that upon the establishment of the Metropolis Turnpike Trust pursuant to the statute of 1826, John Loudon McAdam, Sr., was appointed General Surveyor. It is true that McAdam was perhaps the most influential personality engaged in the successful lobby for the

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79 Act 7 George IV, cap. 142.

consolidation bill; it is also evident that he was considered the most likely candidate for the position; but the fact remains that he never held this important post. The appointment went to his most capable son, James McAdam, very likely at the suggestion of the aging father.

None of the eight contemporary obituaries examined claim this distinction for McAdam.[80] His son was still holding the office at the death of his father, and his contemporaries knew of Sir James' colorful and popular career, culminating in his appointment as Deputy Lieutenant for Middlesex in 1848. But a later generation remembered the father and forgot the son, with the result that many of the biographical dictionaries compiled in the latter part of the nineteenth century claimed that McAdam served the Metropolis Trust as Surveyor-General.[81] Latimer in his Annals of Bristol in the Nineteenth Century,[82] and Tregelles in A History of Hoddesdon in the County of Hertfordshire[83] make the same assertion. More serious, however, is the inattention of the generally reliable Dictionary of National Biography. In the unsigned article on McAdam it is

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80 See below, Chapter XIV.

81 E. g., Beeton's Dictionary of Universal Biography (London, 2nd edition, 1870), p. 671.

82 Bristol, 1887, p. 64.

83 Hertford, 1908, p. 107.

categorically stated that "In 1827 McAdam was appointed general surveyor of roads."[84] This statement, which could only refer to metropolis roads, has misled all subsequent compilers and writers who have dealt with McAdam, for the scholarly world leans rather heavily on the convenient and readily accessible "D. N. B." Thus, The Encyclopaedia Britannica,[85] The Encyclopedia of the Social Sciences,[86] and other ponderous works have repeated the error. Thomas Salkield, the McAdam enthusiast, repeatedly claimed this distinction for his idol,[87] as did McAdam's only biographer, his devoted descendant "Roy Devereux."[88] Even the scholarly William T. Jackman notes that McAdam was placed in charge of the new Metropolis Trust in 1827, "and under his careful administration the work of reform was substantially begun, to be carried on by his son (afterwards Sir) James Macadam."[89]

The Metropolis Turnpike Trust commenced operations 1 January 1827, although for some months prior to the investing

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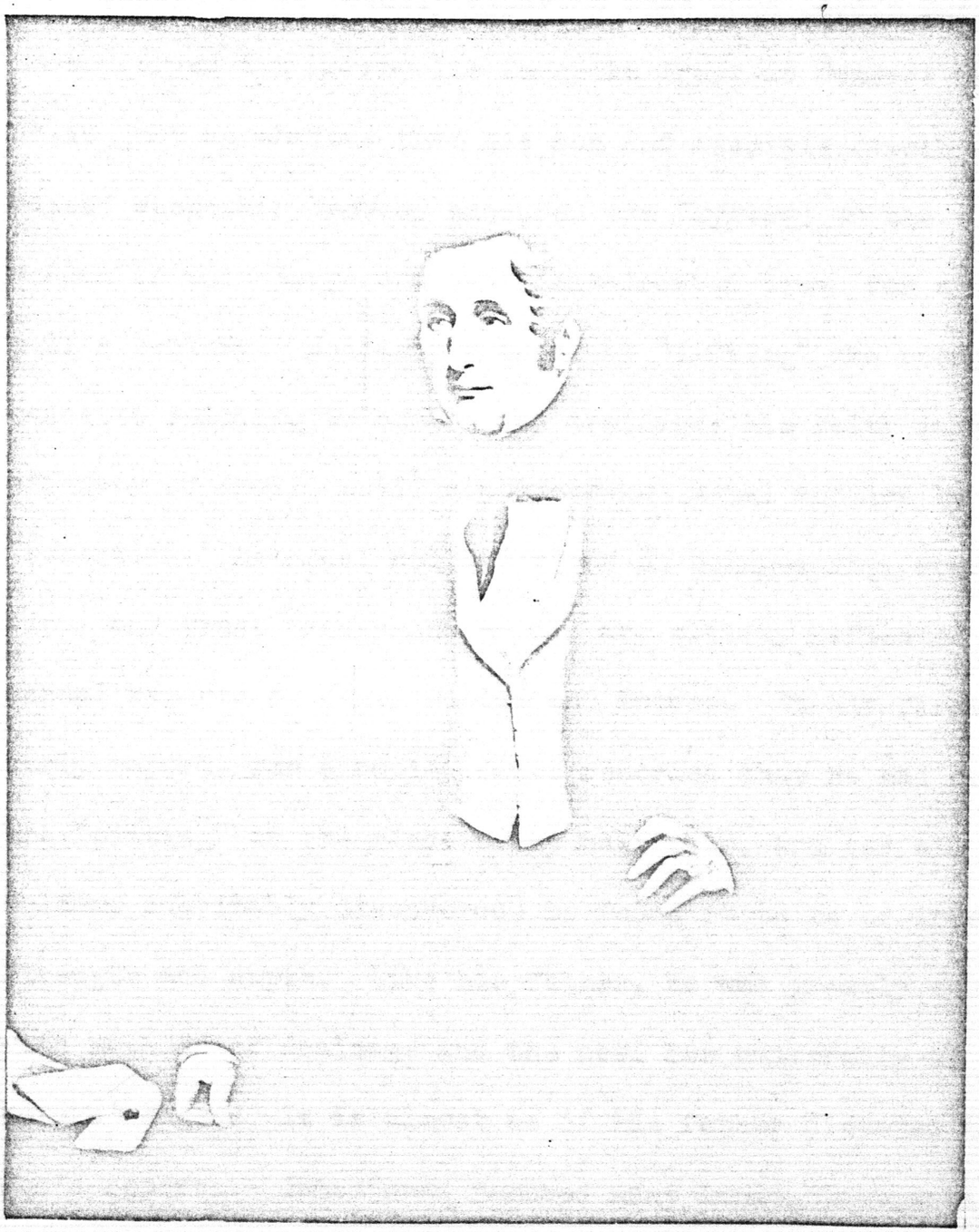
84 Vol. XII, p. 396.
85 1947 edition, XIV, p. 543.
86 Article by Solon DeLeon, 1933 edition, IX, p. 646.
87 E. g., Salkield, op. cit., p. 312.
88 Pseudonym for Mrs. Rose McAdam Devereux, author of John Loudon McAdam, Chapters in the History of Highways (London, 1936), p. 78.
89 Op. cit., I, p. 279.

date the new trustees held regular meetings to plan operations. Upon taking over the fourteen trusts the new agency found itself the richest turnpike trust in the kingdom -- and also the most heavily indebted (£120,000). An office was secured at 22 Whitehall (later moved to 40 Charing Cross), and officials were named. James McAdam was appointed General Surveyor.[90] The energetic Lord Lowther was named chairman of the trust, a post he held continuously until 1855 (as the Earl of Lonsdale after his elevation in 1843), and again from 1861 to 1864.

James McAdam proved to be an energetic and efficient General Surveyor of the Metropolis Turnpike Trust. His elevation to a baronetcy in 1834 was undoubtedly due in part to his success. Likewise, for many years he received and abstracted turnpike returns for England and Wales as parliamentary agent. Competent, affable, and blessed with a favorable "press," Sir James served the Metropolis Trust until his death in 1852, when his assistant H. Browse succeeded him, and held the post until

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90 "First Report of the Commissioners of the Metropolis Turnpike Roads North of the Thames;... dated April 9th 1827." The income of this trust for 1827 was estimated at £81,633. According to the Second Report, actual income for 1827 was £81,430. All forty-six Annual Reports of this trust have been examined. They are bound in one large octavo volume, and are available (among other places) in the County Record Office, Middlesex Guildhall.



SIR JAMES NICOLL McADAM

the dissolution of the trust in 1872.[91]

Though it is readily apparent that John Loudon McAdam never served the Metropolis Turnpike Trust as General Surveyor, it is just as obvious that his son and disciple James, and James' successor Browse, executed the "system" of the elder McAdam in this large and centrally-located trust for almost half a century. McAdam's methods of "lifting" the road; his concepts relating to camber and drainage; his faith in the efficacy of small, artificially-broken metal applied by "scientific" methods; and his views on bookkeeping, consolidation, and trust management -- all are clearly reflected in the annual reports of James McAdam and Browse. In his first quarterly report, for example, James recorded that he had completed the "pitting" of the roads every half mile, and (as all the McAdams inevitably discovered) he found it to be of irregular strength and depth. Like his father, he was greatly concerned with methods of drainage and the need for uniformity of laborers' wages. It is almost as if his father dictated the son's reports. James even removed many London pavements,

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91 Despite the statement by the Webbs (op. cit., p. 190) and by Devereux (op. cit., p. 136) that William McAdam succeeded his brother as General Surveyor in 1852, it is apparent that the successor was Browse.

replacing them with broken stone![92]

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Beginning in Bristol, therefore, trust after trust adopted the McAdam system of roadmaking. Rapidly the system spread to neighboring counties, to the southeast, the Midlands, the London area, the north of England, to Wales and Scotland. At last the Government itself was convinced of its efficacy, and in 1826 enacted legislation establishing a consolidated trust for fourteen counties in the area of the metropolis. As has been noted, France in 1830 made its adoption official. The German and American editions of McAdam's Remarks on the Present System of Roadmaking undoubtedly won adherents in those two countries. In 1832, for example, the American Railroad Journal offered to print McAdam's works in installments in its columns, and praised his system as one "so simple, certain, and perfect...." Simultaneously, readers of the New York American were debating in its columns the McAdam system, one writer lauding the "magnificent" work on Third Avenue as having been modeled after the methods of McAdam; and McAdam was corresponding with C. H.

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92 The 25th Report, Appendix 3, notes this fact with regard to the Kensington Gate entrance to Hyde Park.

Hammond of Bennington, Vermont, who had admired his system when on a visit to England in 1822, and who wished to know more about it.[93]

Thus it was that during the lifetime of its originator and propagandist, the McAdam system spread throughout Great Britain and a number of other areas of the world. Certainly, Shand did not overstate the case when he characterized McAdam as the "man who generalized what for a century remained the standard type of road, and gave his name to it in most languages."[94]

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93 In a letter to Sir Alexander H. MacKenzie, 16 December 1832, McAdam quoted from the Railroad Journal and the New York American, and forwarded a copy of the letter from Hammond. Both these letters are printed in Edinburgh University Pamphlets, 1151, no. 9.

94 P. Morton Shand, "John Loudon McAdam," Architectural Review, LXXX, 1936.

CHAPTER X

THE EDINBURGH TRUST

Although McAdam was never invited to extend his system of roadmaking into the county of his birth in Scotland (Ayrshire), he was consulted by the Edinburgh County Turnpike Trustees in 1819 and by Sir James Stewart of Coltness in regard to Lanarkshire roads in 1820,[1] while Perthshire employed him from 1825 to 1836.[2] In his native Scotland, however, McAdam was not nearly so successful as he was in England and Wales. His career adds emphasis to the Biblical apothegm, "A prophet is not without honor, but in his own country, and among his own kin, and in his own house." It was not that McAdam failed utterly in Scotland. That was by no means the case. But in Edinburgh his young nephew did not succeed during a two-year trial; in Lanarkshire his advice was not heeded; and after a stormy career in Perthshire following his first appointment to the Carse of Gowrie Trust in 1825, he was ignominiously discharged from an important post a few months before his death. It must be noted, however, that his Scottish clashes were personal rather than ideological. In Edinburgh County and in

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1 See above, Chapter IX.
2 See below, Chapter XIII.

Perthshire, and perhaps even in Lanarkshire, his methods were recognized as superior.

Ever since the Union Scotland has enjoyed a large measure of local autonomy, in form if frequently not in substance. Turnpike legislation is not an exception to this general rule. In Scotland each county was organized as a unit for turnpike administration. One Act of Parliament empowering one general set of trustees sufficed for each county. McAdam lauded this system as superior to all others -- including, by inference, the large, centralized Bristol Turnpike Trust of which he was so proud.[3]

The first Act of Parliament dealing with Edinburgh County turnpikes was passed in 1714 and was effective for thirty-seven years. Subsequent acts were passed in 1751, 1755, 1764, 1784, 1785, 1789, 1798, and 1803. Several of these acts dealt with all of Scotland, while others pertained only to one county or another. The Act of 1803 was the effective law during McAdam's personal association with Edinburgh County's roads.[4]

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3 See his book, Observations on the Management of Trusts... (London, 1825), pp. 38-40; also, see above, Chapter VIII.

4 A convenient summary of these acts may be found in The Acts of Parliament for Making and Repairing the Turnpike Roads and other High Roads within the County of Edinburgh from the Union to the Year 1803 with a copious index, printed in Edinburgh by Sir D. Hunter Blair and J. Bruce, 1803.

In the County of Edinburgh (as in all Scotland), the Justices of the Peace, the Commissioners of Supply, together with certain landowners and various other municipal and county officials, constituted the turnpike trustees for the entire county and had jurisdiction over all turnpike roads in the county. These trustees managed all the revenues derived from tolls, assessments (for which statute labor was compounded), and other sources. In the County of Edinburgh the general (county-wide) trust was divided into ten divisions, each responsible for a specified road or network of roads, and to each was assigned annually a sum of money for operating expenses. Each division chose a convener (chairman) who in practice doubled as amateur superintendent of his division. Although lacking a single, professional executive (a very serious defect, according to McAdam!), the system had the merit of providing a common fund, establishing uniform tolls, and requiring financial responsibility on the part of the divisional groups which were easily the equivalent in size of the average English trust.

The Edinburgh County Turnpike Trust was the third largest in Scotland, and embraced 273 miles of road.[5] While enjoying

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5 Ayrshire was largest (431 miles), and Lanarkshire second (371 miles). In all Scotland there were 3,611 miles of

an annual income in 1820 of £12,110, it ranked fourth (of twenty-three) -- behind Lanarkshire (£27,744), Linlithgowshire (£15,735), and Renfrewshire (£13,702); whereas in annual average income per mile, Edinburgh County stood sixth, behind Linlithgowshire, Lanarkshire, Roxburghshire, Stirlingshire, and Perthshire, respectively. With regard to debt, however, Edinburgh County with £28,552 (£104 per mile) happily ranked eleventh, behind Lanarkshire (£269,260 total debt, £725 per mile) and nine others. Only Ayrshire, Kirkcudbrightshire, and Wigtonshire possessed a smaller debt per mile. As a large and wealthy county, Edinburgh annually expended £16,070 on her turnpike system, a total expenditure second only to Lanarkshire's £25,579; Edinburgh County's average annual expenditure of £58 per mile was fifth among Scottish counties. With her 1820 income amounting only to £12,110, and her expenditures totaling £16,070, Edinburgh County found herself incurring a deficit of £3,960, in contrast to Lanarkshire's 1820 surplus of £2,115 and Renfrewshire's of £5,645. The one bright spot in the picture, however, was the fact that Edinburgh County's ledger showed no interest due -- a feature only four other counties could boast.

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turnpike road. Statistical summaries cited in this paragraph have been taken from Appendix 2, "Report of the Select Committee... 1820," Parliamentary Papers, 1821 (747) IV.343.

As representatives of the wealthy yet burdened Edinburgh County Turnpike Trust Robert Dundas, 2nd Viscount Melville, and several other trustees communicated with McAdam in London in the summer of 1819.[6] Lord Melville, a prominent Scottish Member of Parliament then serving as First Lord of the Admiralty in the Liverpool Ministry, had heard frequently about the effectiveness of the work of McAdam in the West Country and elsewhere. At a general meeting of the Edinburgh County Trust on 18 May 1819, Melville had broached the subject of consulting McAdam, and had been instructed to see him and solicit his assistance. When approached on the subject, McAdam "very handsomely signified his willingness to come to Edinburgh and give his advice for the improvement and management of the Roads in that county without any charge farther [sic] than his actual expenses;..."[7] This offer was accepted. At the first meeting of the Bristol Turnpike Trust under their new Act, McAdam

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6 Noted at a joint meeting of the Dalkieth and Lasswade Districts of the Edinburgh Trust (9 August 1819), and recorded in the Dalkieth District Minute Book, 1804-1850. All original Edinburgh County Turnpike Trust records cited hereinafter are deposited in the vaults of the County Buildings, George IV Bridge, Edinburgh, and [illegible] the care of the J. P. Clerk.

7 Ibid. In 1820 he was paid £147, and his assistant £23, all on expense account.

requested a brief leave-of-absence for the Edinburgh trip and wrote to Lord Melville that he would be able to journey north as soon as he had effectuated the major provisions of the new act -- possibly just after 9 July.[8]

Accordingly, leaving Bristol in either late July or early August, McAdam visited Edinburgh County, attended by Luke Pearson, an assistant. He was introduced to the trust and, after some discussion, was officially commissioned to survey the roads of the entire county and make a formal report. The convener of each district was directed to make available every facility, including access to the accounts.

McAdam's formal report, dated 27 August 1819, was neatly printed and distributed to all trustees prior to its consideration at a general meeting on 17 September. At the appointed hour, forty trustees, including such dignitaries as the Earl of Morton, the Earl of Roseberry, Viscount Melville, the Lord Advocate (Sir William Rae), and Lord Hermand, were present in the County Rooms. Andrew Wauchope of Niddry served as convener. The detailed and guardedly critical report of McAdam was read to the trustees and considered at length. On motion of John

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8 McAdam to Melville, 21 June 1819, Collection "F," Bridges, Canals, Roads in Scotland 1782-1841, VIII, Roads, Folder 3, Item 1 (British Library of Political and Economic Science, London).

Inglis of Redhall, seconded by James Dewar of Vogrie, it was unanimously determined

(1) that the warm thanks of the trust be expressed to McAdam for having journeyed to Edinburgh and made the inspection "while at the same time he had declined to accept of any pecuniary remuneration for so doing...;"

(2) that the plan of procedure recommended by McAdam possessed many admirable features which, "after a fair experiment," ought to be adopted;

(3) that a general surveyor must by all means be employed and paid a liberal stipend to be furnished by all districts according to their toll-gate "rentals;"

(4) that the new general surveyor be placed entirely under the direction of the general and district trustees, the districts to utilize his services as desired;

(5) that McAdam recommend some proper person for the position, his recommendation to be received by a committee consisting of the Lord Advocate and the conveners of the various districts, who would make arrangements and report to the general meeting prior to final appointment;

(6) and that the thanks of the meeting be extended to the Lord Advocate for his interest and trouble in all these

proceedings.[9]

McAdam's printed Report of 27 August 1819 amply reveals the man and his methods.[10] On 18 May 1819, his report notes, the Edinburgh County Turnpike Trustees decided to approach him with regard to their roads. Their chief purpose in calling on him stemmed from a strong desire to be relieved of eroded roads, maladministration, and increasing debt. With this in mind, the survey was made.

McAdam's program of action included permanent road reconstruction by "lifting and re-making" 121 miles of road the first year, while simultaneously "smoothing and leveling" the remaining 152 miles. He advised the subordination of all managerial functions to a qualified general surveyor, and recommended that thirty-seven per cent of the income of the trust be set aside to service the debt, that fifty-seven per cent be utilized for repairs and reconstruction, while the remaining funds be held for contingencies. These measures, he

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9 Edinburgh County Turnpike Trust General Meeting Minute Book, 1819-1823, and a detailed extract of the 17 September general meeting by Thomas Cranstoun, Clerk, in the Cramond Road Minute Book, 1814-1833. The extract is more detailed than the record in the General Meeting Minute Book.

10 A copy is deposited among the Morton Papers (Scottish Record Office, Edinburgh).

promised, if "scientifically" carried out, would bring prosperity and managerial efficiency, plus stronger and better roads.

But McAdam's report did not stop with lucid, constructive proposals. Edinburgh County's turnpike roads, he charged, had been constructed in violation of every scientific principle with which he was acquainted. They appeared to have been formed by the simple expedient of digging a trench into which were thrown large stones "collected at enormous expense." Over this faulty foundation, he continued with deliberate bluntness, "a road of ill-prepared and unskilfully laid materials" was devised. And all this had occurred in a part of the kingdom where nature has kindly scattered her best materials for road-making. He could not determine which was the greater evil: the excessive costs incurred in wasteful and unsatisfactory construction, or the harm suffered by a public deprived of good roads!

Not content with this indirect criticism of both trustees and surveyors, McAdam castigated the surveyors severely. The present surveyors, he pontificated, are "lamentably deficient in knowledge of their profession," and will require "to be thoroughly instructed by the General Surveyor before they can be capable of directing the workmen." -- McAdam's vitriolic pen, which had evidently been dipped in gall for the occasion,

produced caustic criticism scarcely calculated to endear him to his assistants should he, his sons, or his associates be employed to manage the affairs of this trust.

He repeated his well-known description of the ideal chief executive of a trust, on whom his entire program hinged:

> The General-Surveyor should be acquainted with the principles of Road-Making in all its various details so as to be able to instruct as well as to direct the Sub-Surveyors. He ought to be a gentleman of education and station in society, that may give weight and authority sufficient to suppress any improper prejudice or bias, contrary to the public interest. It will be his duty to attend all general and district meetings, to receive and execute the orders of the Commissioners, and he should have authority to suspend any Sub-Surveyor who may negligently or improperly conduct himself, and make report to the next meeting of the Trustees of the district to which such Sub-Surveyor belongs.
>
> ...Upon the zeal, the character, and the Ability of the officer to whom the trustees may be pleased to commit this important charge, will depend the ultimate success of this object of their commendable solicitude.[11]

McAdam's system envisioned a highly centralized managerial arrangement in which a powerful executive influenced and

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11 McAdam is known to have expressed these views in substantially the same language on numerous occasions -- e. g., in Remarks on the Present System of Roadmaking, 7th ed. (London, 1823), pp. 17-22; Observations on the Management of Trusts (London, 1825), pp. 9, 12, 13, 19, 35-38; speech to the Bristol Turnpike Trust at the time of his appointment as General Surveyor, 15 January 1816, as reported in Felix Farley's Bristol Journal, 20 January 1816; testimony of McAdam before the Select Committee on Highways, 4 March 1819, Parliamentary Papers, 1819 (509) V.339; letter to C. H. Hammond, 14 November 1832, enclosed in a letter to Sir A. M. M'Kenzie, 12 December 1832, both printed in Edinburgh University Pamphlets, 1151, no. 9.

enforced the policies laid down by the trustees. Sub-surveyors (one for each district), "gang men" (foremen), and laborers were not to think, but to carry out orders as directed, in a spirit almost military. He admitted in the Report that his system of administration would entail an increased budget for management (in this case, between six and seven hundred pounds); but he claimed the many advantages flowing from this arrangement -- strict accountability, increased efficiency, elimination of waste, and skilled supervision of labor -- made the initial investment a wise one. There was no reason, he concluded, why Edinburgh County should not have good roads, even excellent roads, and within present financial limitations. Her annual income, in fact, was sufficient to provide good roads and simultaneously to reduce the debt.

In an appendix to his Report, McAdam included a detailed financial analysis of each of the nine districts in the county. He omitted Leith Walk, most of which was paved.[12]

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12 See Table 1, p. 335.

TABLE 1

RECAPITULATION OF THE FINANCIAL STATUS OF THE DISTRICTS OF THE EDINBURGH COUNTY TURNPIKE TRUST AS DETAILED IN McADAM'S REPORT, 1819

Roads	Miles	Debt*	Income*	Deductions*	Disposable Sums*	Repairs for a Year*	Remaining for Contingencies*	May Be Repaired Permanently**	Must Be Repaired by Smoothing**
Lasswade	66	40,037	8,660	3,734	4,926	4,400	526	22	44
Dalkeith	35	13,600	6,925	2,065	4,860	4,520	340	25	10
Post Road	21	24,031	6,835	4,268	2,567	2,220	347	12	9
Cramond	33	6,454	6,186	1,560	4,626	4,332	294	24	9
Slate-ford	19	900	1,520	349	1,171	1,048	123	5	14
Wrights-houses	24	1,000	1,525	355	1,170	1,108	62	5	19
Middle District	13	1,000	1,890	428	1,462	1,304	158	7	6
Calder	48	6,200	3,510	1,012	2,498	2,216	282	10	38
Corstor-phine	14	11,565	3,620	1,302	2,318	1,972	346	11	3
	273	104,787	40,671	15,073	25,598	23,120	2,478	121	152

*Figures in pounds Scots
**Figures in miles

Although adopted in its entirety by unanimous vote of the forty trustees present on 17 September 1819, McAdam's Report, especially its criticism, was responsible for most of the opposition which rapidly developed in the district meetings and among the surveyors.

However, in accordance with the favorable action of the September meeting, McAdam cast about for a suitable person to recommend as general surveyor. Apparently not able to spare any of his Bristol assistants, and almost daily receiving inquiries for advice and aid, he found his attention drawn to a nephew, Lieutenant Colonel James Shaw, who had very recently been placed on regimental half pay after an active army career.

Shaw was the son of McAdam's older sister, Wilhelmina Hannah, and Captain John Shaw, who had been in active service under the British flag during the American Revolutionary War. James Shaw had seen much fighting during the Napoleonic Wars, having participated in the Peninsular Campaign and elsewhere. He had particularly distinguished himself at Waterloo under the very eye of the Duke of Wellington, for which he received a brevet majority (July 1815). Wellington made him English Commandant and Military Agent at Calais, a position he held with credit until the final withdrawal of the Allied forces in

November 1819. Although he had suffered intermittent attacks of fever since his participation in the fighting in the Iberian Peninsula in 1808, and had been retired for reasons of health, Shaw was not an invalid when approached by his uncle and offered the Edinburgh post.[13]

Surrounded by sons, grandsons, and other relatives in executive positions with many turnpike trusts (including the Bristol Trust), McAdam apparently could see no objection to securing a lucrative and prominent position for his capable thirty-one-year-old nephew.[14] Shaw was able to meet most of McAdam's prescribed qualifications: he was "a gentleman of education and station in society;" he possessed the requisite "zeal, character and ability;" and he was intelligent, and not without executive experience. But he did seriously lack a

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13 Later in life James Shaw received numerous military promotions and honors. Upon succeeding to the estates and barony of Kirkmichael, Ayrshire, through his wife, he added the name Kennedy to his own. He was created C. B. in 1838, and K. C. B. in 1863, the year after he was promoted to the rank of full general. He died at Bath in 1865. -- Biographical material for Shaw is drawn largely from the family manuscript collection now in the possession of Mr. H. Shaw Kennedy of London, the various autobiographical works of General Sir James Shaw Kennedy, and the article on him in the Dictionary of National Biography, X, pp. 1311-1313.

14 As has been noted, numerous members of the family were in the profession, several before 1820. These included the three sons of McAdam, several grandsons, cousins, and nephews. He was frequently criticized for this practice.

thorough knowledge of the profession of road surveying. His uncle, however, in a letter to the trust, suggested the name of young Shaw, promising to give him adequate instruction in the profession. He hinted that such a large and important trust should never offer less than £700 per annum for a general surveyor. He added that at no extra expense to the trust he was sending with Shaw a young gentleman to assist him during the winter. And as previously promised, he was detailing two sub-surveyors of ability, integrity, and station "to settle prices, and instruct the laborers." Nothing is so important, he repeated, as good executive ability.[15]

Baron Clerk Rattray, in the absence of the Lord Advocate, presented the report of the Committee of Conveners to a general meeting on 16 November 1819, and recommended approval of the appointment of Shaw. The general meeting concurred, and on motion of Sir Patrick Walker authorized the Lord Advocate to engage the services of Shaw for a period not exceeding two years. The contract with him, however, stipulating a salary of

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15 This letter was written from Bristol on 2 November 1819, and incorporated in a minute of the Committee of Conveners appointed 17 September. It was extracted from a minute and included under entry for 25 November 1819 in the Calder District Minute Book, 1815-1830. The original letter and the original minute are not available.

Roup of Tolls.

TO BE LET by PUBLIC ROUP, in MID-FORTH INN, on SATURDAY the 16th of APRIL, 1836, at Twelve o'clock Noon,

THE following TOLL BARS on the WILSONTOWN and LANARK ROAD, for one Year, from and after the 26th of May next, viz.

1. WILSONTOWN.
2. MIDFORTH and NETHERTON, with Side-Bars.
3. CLEGHORN, and Side-Bar, with Side-Bar at STOBIELEE.

The Tacksmen preferred will be required to subscribe their obligations, along with sufficient Cautioners, immediately after the Roup.

N.B.—Offers for providing METALS for the ROAD to be lodged with MICHAEL CALDER, Road Overseer, Throughburn, on or before Friday the 15th.

5th April 1836.

W. Burness, Printer, Edinburgh.

BROADSHEET ADVERTISING PUBLIC ROUP OF TOLLS, 1836

£700, was to become effective only upon formal certification by McAdam that Shaw was qualified in every respect. This last qualification, declared the trust, was added to protect Shaw and McAdam, for the smallest misfortune might result in a loss of confidence in both Shaw and the system he represented. The training of Shaw, therefore, must not be hurried unduly.

The general meeting also approved the appointment of the two sub-surveyors at two pounds each per week, although "at a loss to see the necessity of appointing in addition to the General Surveyor two Sub-Surveyors for the County" who as "strangers to this Country" could hardly be qualified to fix Edinburgh prices "of which they must be completely ignorant!"[16]

True to his promise, McAdam instructed Shaw and made provision for him to observe various surveyors engaged in their work. This period of indoctrination covered about three months. First, according to McAdam, Shaw "diligently attended" repairs on a road from Bath to Salisbury.[17] With James McAdam he

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16 McAdam had suggested price-fixing as one of their functions. See General Meeting Minute Book, 1819-1823, entry for 16 November 1819; also, Calder District Minute Book and others. Also consulted were the Edinburgh Scotsman (27 November 1819); Edinburgh Evening Courant (20 November 1819); and a letter from Shaw to his father, London, 26 November 1819, quoting from McAdam's letter to James Shaw, 24 November 1819, Shaw Kennedy MSS.

17 McAdam to Edinburgh County Turnpike Trust, 2 November 1819, copy in Calder District Minute Book, 1815-1830, entry for 25 November 1819.

traveled extensively in Surrey, Hampshire, and Sussex, and a short while later traveled to Hoddesdon, Hertfordshire, on the Great North Road.[18] Still later he went to Lewes, Sussex, as the guest of Lord Chichester, from whence he wrote that he was observing the work of "a young man, Mr. Campbell, /who/ has charge of an extensive district of roads, who was taught the business at Bristol, & who my uncle thinks is the best road maker in Europe /sic/ I went to Lewes to see how this man works...."[19] Unfortunately, Shaw seemed to treat this all-too-brief instruction lightly. On the basis of the general tone of his letters and in view of what happened subsequently, it seems doubtful that he ever learned a great deal about highway engineering.

In any event, accompanied by George Pearson, an Ayrshire cousin (the "young Gentleman" whom McAdam had promised to send to Edinburgh with Shaw),[20] Shaw arrived in Edinburgh early in February 1820. On the twenty-ninth of the same month he was presented to the trust, which forthwith passed three resolutions designed to implement his appointment by forming the

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18 Shaw to his sister, Helen Ramsay, 23 November 1819, Shaw Kennedy MSS.

19 Ibid.

20 Apparently James Sanders, another cousin (a grandson of McAdam), could not make the journey as originally scheduled.

basis of relations between the new general surveyor and the trust. It was resolved:

(1) that the general surveyor be responsible only to the district conveners for repairing roads;

(2) that orders for work be given by each convener to the general surveyor, who shall see that all work is executed in the best and most economical manner, and who shall certify all accounts prior to payment; and,

(3) that the general surveyor shall make reports of work accomplished and expenses involved as required by the conveners. Copies of these resolutions were directed to be sent to each district.[21]

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The available minute books of the various Edinburgh County Turnpike Districts reveal the private viewpoints of the trustees, who, although in the general meeting unanimously endorsed McAdam's plan and the appointment of Shaw, were in many cases either cool or bitterly opposed to the entire program. Most of

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21 The Minute Book of the General Meeting, 1819-1823, does not contain any reference to the transactions of 29 February, but the Calder District Minute Book, 1815-1830, gives a complete transcript of the proceedings.

the controversy pertained to Shaw and his two sub-surveyors; there was very little opposition to McAdam's system.

On 1 May 1820 the conveners of the districts of Dalkieth, Post Road, Lasswade, and the Middle District informed the general meeting that they had utilized the services of Shaw, and wished to commit their roads entirely to him.[22] Available data indicates that the other six districts never submitted to the jurisdiction of Shaw, and that by the end of 1821, when Shaw's reappointment became a subject for discussion, only Post Road, Lasswade, and the Middle District wished to retain his services, and even they expressed misgivings about the efficacy of his work.

The Dalkeith District, of which McAdam's friend Lord Melville was the Preses, included in its membership Sir John Hope, Sir Robert Keith Dick, "Mr. Wauchope of Edmonston," and James Dewar of Vogrie. On 17 September 1819 this district unanimously decided to adhere to McAdam's system, and to recommend its adoption by the general meeting. This was done on 25 November. Shaw was introduced to the district trustees on 17 March 1820,

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22 General Meeting Minute Book, 1819-1823, entry for 1 May 1821. Shaw's appointment had become effective at Candlemas 1820; he had arrived ca. 5 February, however, and having been given an office in Edinburgh, he set immediately to work.

and again by unanimous vote of the trustees he was authorized to take charge of the roads of the district.[23]

An entirely different attitude prevailed within the Calder District Meeting held at Midcalder on 4 September 1819. Present were the Earl of Morton (who served as Preses), the Honorable Lord Hermand, Dr. James Hare of Calderhall, and John [illegible]ray of Harwood. Several members were eager to adopt McAdam's views, while others were dubious about the wisdom of expending £700 per annum for general superintendence. The convener suggested the district pursue a middle course by requesting McAdam to send a qualified general surveyor without definitely committing the trust to the utilization of his services. This point of view, of course, prevailed in the general meeting of 16 November. Although hesitant, this district was obviously open-minded in regard to McAdam and Shaw, for in their minute of 6 November they recorded with regret the death of their own surveyor, James Bauchop, and decided to leave the position vacant until a final decision was reached on McAdam's report.[24]

On 25 November the Calder District expressed strong dissatisfaction with the proposal to spend two hundred guineas for

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23 Dalkeith District Minute Book, 1804-1850.

24 The information concerning the Calder District is culled from various entries in their Minute Book, 1815-1830.

the services of "ignorant strangers" (McAdam's sub-surveyors) and asked the Lord Advocate to consider the matter with care before employing them. On 1 April 1820 these same trustees were operating without professional assistance and were dealing directly with their contractors (William Murdock and John Samuel), demanding that the road metal be reduced from an eight-ounce size to a four-ounce size. On consideration of the three resolutions of the general meeting of 29 February detailing Shaw's work in the county, the Calder District took a course diametrically opposed to that of the Dalkeith District. It unanimously rejected all the proposed resolutions. Thomas Bauchop, son of their late surveyor, was named the new surveyor for the district, the convener (James Hare, who obviously had been seriously alienated by McAdam or Shaw) declaring he saw no reason why the former successful mode of utilizing a "committee of superintendency" be abandoned for an expensive and untried innovation. He agreed with McAdam about the value of small, artificially-broken metal, but said he could not consent to the grant of such power as McAdam asked for a general surveyor. In any event, he added, the road between Whitehouse Old Toll Bar and Tynecastle had been recently repaired without the assistance of the general surveyor -- and it would surely stand

comparison with any made by McAdam![25]

Later that same year (4 November) the Calder District reluctantly consented to bear its proportionate burden of Shaw's £700 annual salary, "a burden unavoidable during that [two-year] period." The trustees then bitterly added, "In addition to the above unprecedented salary, two English Sub-Surveyors have been sent down at Salaries of 100 Guineas each, but with whom this district has no concern." Even when someone suggested that inasmuch as the district was required to pay a part of Shaw's salary, it should have him make a survey, the vote was a decided "no," the majority emphatically expressing the opinion "that it would be more prudent to refrain from employing the General Surveyor in any respect for the present."

The attitude of a third district, Cramond, invites attention.[26] The observations of a "Mr. Bennet," an Edinburgh official who had accompanied McAdam on his tour of inspection in Edinburgh County, were laid before the district meeting on

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25 Present also and voting unanimously with Hare were Lord Harmand, Alexander Young of Harburn, William Young of Harburn, John Bonar of Ratho, and Roger Aytoun of Murieston. -- This narrative is based on the Calder District Minute Book, 1815-1830, entries from 4 September 1819 to 4 November 1820.

26 Cramond Road Minute Book, 1814-1833. Present at the 15 September 1819 meeting were Mr. Sheriff Duff, Sir Patrick Walker of Coats, Major Weir of Tollcross, and Rocheid of Inverleith.

15 September 1819. While not altogether in agreement with McAdam, Bennet suggested McAdam's plan be given a trial. He concluded, however, "Yet I have the presumption to think that by taking some sensible decent people in the District his example may be followed without much difficulty." Rocheid of Inverleith, Convener and Preses, put the question to the trustees in the form of two resolutions:

(1) that some of McAdam's recommendations might with propriety be followed, and a fair trial of "these parts" of his plan should be given; but inasmuch as they were decidedly of the opinion that their roads were in excellent condition, they could only incur needless debts by "lifting and Relaying" them as recommended by McAdam;

(2) that the majority are also "decidedly of opinion" that the appointment of a general surveyor would be unwise and unnecessary, giving rise to jealousies and disagreements among the districts; and furthermore, notwithstanding McAdam's disparaging remarks about the quality of the surveyors of Edinburgh County, the Cramond District was quite well satisfied with their surveyor (a man named James), and felt they were fully capable of introducing such feasible reforms as suggested by McAdam without the aid of any person delegated by him.

Very little is known of the details and quality of the work of Shaw in Edinburgh County. His earlier as well as his later career indicate he did not lack in administrative ability. That he was eager to enter the profession of highway engineering there can be no doubt. Before assuming any responsibilities in Edinburgh he wrote to his father of his plans, and asked him to keep in mind his need for intelligent young men "of good family" who could enter the profession as sub-surveyors:

> ...if we succeed at Edinburgh eleven Sub Surveyors [Shaw must have thought there were eleven districts in the county, instead of the actual ten] for Mid Lothian alone will be wanted -- and no doubt if the system takes in Scotland as it has in England, a great many would soon be wanted.... Indeed, the demand is so great for them in England that once they are instructed their getting situations appears to me certain. My uncle could I think imploy [sic] twenty and each at this moment -- indeed they are run to an extremity from the want of them, so much is the system extending.[27]

Perhaps the chief difficulty Shaw encountered was his inexperience and ignorance of road surveying, factors which easily could have resulted in his embarrassment. Further claim was made upon his time and interest by his marriage in Ayrshire during the Christmas season (1820) to Mary Primrose Kennedy.

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27 James Shaw to John Shaw, 22 December 1819, Shaw Kennedy MSS.

The couple resided for some months with Shaw's sister at 44 Hanover Street, Edinburgh.[28]

For various causes, therefore, Shaw did not win the approbation of the Edinburgh County Turnpike Trust. Before twenty-five trustees at a general meeting on 20 November 1821 the question of renewing his contract was considered. On motion of James Dewar it was decided that each district should meet separately and by 11 December report in writing the answers to three questions:

(1) Have maintenance expenses increased or decreased? -- What is the outlook for the future in this regard?

(2) What is the present condition of roads in the district? -- Has the system of McAdam proved beneficial?

(3) Basing judgment on the answers to questions (1) and (2), should McAdam's system be followed henceforth? -- Are the services of Lieutenant Colonel Shaw so efficient as to merit his continued employment?[29]

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28 An interesting account of Shaw's work in Edinburgh and his marriage is presented in an unpublished typescript by David S. Ramsay, his nephew. This work, entitled "Biographical Sketches of some Ayrshire People of the Last and Present Centuries," 1893, is in the Carnegie Public Library, Ayr.

29 General Meeting Minute Book, 1819-1823. A rather full account is here given concerning both the 20 November meeting and the special meeting held 11 December.

The answers to these blunt but pertinent questions were submitted to the general clerk prior to the 11 December special meeting, and were openly discussed and entered into the official minutes. (1) Lasswade commended McAdam's system in general, noted expenses were higher, and cautiously requested the further services of Shaw, "at least for another year." (2) Dalkeith reported their roads showed no material improvement, although on a small "stretch" his plan had given satisfaction; expenses had increased; while approving McAdam's system in a general way, this district did not look with favor upon the mode of its execution by Shaw. (3) Post Road noted improved roads but greater expenses, and asked that Shaw's services be continued if its proportionate share of his salary (eleven and one-half per cent) remain the same. (4) Cramond stated that "The System recommended by Mr. McAdam, at least to its full extent, has never been acted upon within this district;" their method of roadmaking cost £3.1s.1d in contrast to £4.12s.9d. for McAdam's; they preferred their own system, had never called upon Shaw, and consequently saw no need to retain him. (5) Corstorphine, while executing McAdam's system only in part, had greatly improved its roads since 1819; the cost had been heavy; never having had occasion to seek the services of Shaw, this district recommended the abolition of his post.

(6) Calder complained bitterly it had not wished initially to conform with majority wishes in hiring Shaw; it had been forced to contribute to the salary of a general surveyor who had never served its interests; and in the future it would make no contribution to his salary: by all means the office should be abolished. (7) Slateford, anxious to give McAdam's system a fair trial, had adopted his recommendations and benefited considerably, although at great expense; the helpful portions of McAdam's system can be copied without the special advice of a general surveyor. (8) Wrighthouses had experimented with McAdam's system and had found that a road constructed with a five-inch foundation of stones weighing two to three pounds each, covered with four inches of the small "macadam," lasted much longer than a road constructed only of a nine-inch layer of "macadam;" expenses had lately increased; the district preferred McAdam's method of repairing roads with small stones, and they agreed with his advice in urging frequent repair; but they saw no need for a general surveyor. (9) The Middle District found its expenses greater, but its roads better; McAdam's plan should in all fairness be given a longer trial; Shaw's services should be continued, but only if their proportionate share (£30) remain the same. (10) Leith Walk had adopted McAdam's plan on Easter Road; this proved beneficial,

and may not have been more expensive, although this was not definitely known; McAdam's system should be continued, they urged, but Shaw, who had never been employed by the district, should not be retained.[30]

Upon consideration of these reports -- all commending, at least in part, McAdam's system, while only three urged the retention of Shaw -- the Lord Advocate moved that the system of McAdam, wherein beneficial, be followed. Seconded by Sir John Hope and James Dewar, the motion passed unanimously. Next, John Inglis of Redhall moved that it would be inexpedient to reemploy Shaw. The Lord Advocate moved to amend the motion to read that Shaw be retained for one year. Seconded by Sir John

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30 Although McAdam's methods of repair often may have been more expensive than those of other surveyors, such a conclusion is not warranted solely because of the testimony of these ten districts. Lasswade, for example, shows steadily increasing expenditures for repair from 1814 to 1823 (Account Book, 1814-1840):

Year	Costs(£)	Variation(£)	Year	Costs(£)	Variation(£)
1814-15	1,668		1820-21	3,950	+965
1815-16	1,845	+177	1821-22	4,038	+ 88
1816-17	1,838	- 7	1822-23	5,035	+997
1817-18	2,268	+430	1823-24	4,795	- 240
1818-19	2,503	+235	1824-25	4,528	- 267
1819-20	2,985	+482	1825-26	4,780	+ 252

It is rather difficult to analyze these figures, because it is not known how good (or bad) the roads of the district were in February 1820, when Shaw commenced operations. Large increases in expenditures occurred when he assumed control, but the trust

Hope, this amendment was long debated, but lost on vote. The original motion was passed by a majority of one. In this fashion Shaw's two-year appointment by the Edinburgh County Turnpike Trust was terminated, and the experiment with a county-wide general turnpike superintendent abandoned. It appears that while McAdam's system set the standard in the chief county of southeast Scotland, his representative there was unceremoniously discharged.

-6-

There is an interesting sequel to the preceding narrative. Just a few months prior to McAdam's death, John McConnell, his disciple and associate in various operations in the north of England and in Perthshire,[31] was invited to confer with Lord Viscount Melville. At the resultant conference with that nobleman McConnell was requested to make an inspection of the roads of Edinburgh County. Later in a letter Melville clarified his wishes and asked that the survey embrace the entire superintendence of the roads, there being the bright prospect

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in 1822 was one of the three which wished to retain his services. Evidently they thought their increased costs were worthwhile. Again, while costs rose precipitously when Shaw took charge, they remained high after his departure.

31 See below, Chapter XIII.

of a consolidation of all road districts in the County.[32] He felt that ultimately consolidation would come, and that it was time to begin pressing for it. Previous laws had provided organic unity, but local autonomy had rendered the laws a fiction.

McConnell reported to the trust in April 1836, and apparently served as consulting surveyor that year. A special committee was appointed by the general meeting on 15 November 1836, and directed "to communicate with Messrs. Macadam and M'Connell as to the number and Salaries of Assistant Surveyors, and the places at which they should reside."[33] McAdam was at that time in his eightieth year, and although still active, his assistants did most of his work. He was, in fact, at the time of his second appointment by the Edinburgh County Trust en route from his home in Hertfordshire to Scotland, where he passed away on 26 November of that same year.

McConnell, nevertheless, dispatched a report from Penrith on 17 December 1836. He recommended division of the county into two trusts (a major step toward consolidation), with a

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32 12 March 1836. McConnell had written to Melville from Penrith, 10 March 1836. These letters are in the British Library of Political and Economic Science, London, Collection "F," Bridges, Canals, Roads in Scotland, 1782-1841.

33 See the various pertinent documents printed in the Edinburgh University Pamphlets, XII, 32.

hierarchy of administration centering in a general surveyor, who should be established in Edinburgh with an assistant. In detail he outlined his proposals, even urging fortnightly accounts and other measures in the long-approved McAdam fashion. In principle and in detail, it was as if the hand of McAdam had penned the report.

There was one major departure, however. On the same day he posted his report to the Edinburgh County trustees, McConnell wrote a letter to John Inglis of Redhall, a leading member of that trust. Referring to the differences of opinion that had arisen with the committee on 9 December in Edinburgh, he assured Inglis that

> far from anticipating any difficulty from that cause, I look forward to deriving the greatest assistance from the experience and suggestions of those gentlemen who have hitherto directed the affairs of the trusts; and as I should always consider the advice of any individual trustee of the greatest importance, so would I consider the expression of their opinions collectively, as a rule to conform to.[34]

-- That mild and deferential paragraph could never have been written by John Loudon McAdam, the great "Colossus of Roads!"

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34 Ibid.

CHAPTER XI

BEFORE PARLIAMENT

Great Britain shared in the general European reaction after Waterloo. She was weary and disillusioned. "Peace had not brought plenty." Both continental and colonial markets waned with the making of the peace. A peaceful Europe became once more a productive Europe, with a consequent depression in English industry. Treveleyan graphically relates that

> it was now that Speenhamland had its full effect, and a vast proportion of the rural labourers became paupers. Meanwhile, the landlords passed the Corn Law, in defiance both of middle-class anger and working-class agony.[1]

Habeas Corpus was suspended as the Radical movement was launched. In 1819, when recession swallowed up a temporary economic recovery, there occurred the Peterloo fiasco followed shortly by the notoricus "Six Acts." The year 1820 saw the coronation of George IV, the disgraceful Queen's Trial, and the Cato Street Conspiracy.

It was during these turbulent years between Waterlco and Peterloo that McAdam catapulted to engineering fame in England. In eventful 1819 the House of Commons diverted its attention from social and economic unrest long enough to appoint a Select

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1 George M. Treveleyan, British History in the Nineteenth Century and After (London, New Edition, 1937), p. 188.

←——Committee on Highways and Turnpike Roads in England and Wales. This committee -- "which confessedly originated in the improvements effected by Mr. McAdam"[2] -- heard testimony in early March from eighteen experts, including McAdam, his son James, and the eminent civil engineer Thomas Telford. McAdam was asked to give lengthier and more frequent testimony than anyone else. He appeared before the committee on 4, 9, and 11 March and fully outlined his views on road construction, repair, and administration. Edward Protheroe, a friendly Member of Parliament from Bristol, was in the chair at each hearing.[3]

That the detailed suggestions made by McAdam carried great weight with the Select Committee is readily apparent from their report, issued 25 June 1819.[4] His work was lauded without restraint and was described as a model to which the entire kingdom could aspire. The chief recommendation of the committee was that a county-wide turnpike administration be established throughout England and Wales. This system could best be administered by the magistrates in quarter sessions, who would place all professional direction in the hands of one or more general surveyors. Further impetus to the turnpike improvement program

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2 Quarterly Review, XXIII, p. 99.
3 See Parliamentary Papers, 1819 (509) V.339.
4 Ibid.

would be given, claimed the committee, by the radical reform of the roads around the metropolis, which all the counties could see and emulate. A special board of commissioners, headed by "some persons of eminent station and character" would insure the "independence and respectability" of the undertaking. These and similar McAdam-inspired recommendations comprised the 1819 Select Committee's "Report on Roads."

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In the early years of the nineteenth century there were no formally trained civil engineers, and the profession enjoyed very little status. Indeed, unlike the medical sciences which were taught in highly developed faculties by 1800, engineering studies were for the most part considered unworthy of such an exalted position, although higher mathematics had long been offered in the universities. Innate ability mixed liberally with long apprenticeship and much good fortune (as in the cases of Sir Thomas Telford and Sir John Rennie) was the sole guarantee of success for the aspiring young engineer. Engineering fees were very small, especially for turnpike trust surveyors who, as McAdam so frequently complained, were often ignoramuses with neither intelligence nor social prestige. Even the great Telford, whose long and busy career was unrivaled, and who was a

bachelor of austere habits, left an estate on his death of only £30,000. Furthermore, there were few lucrative public appointments for engineers; surely Telford's commissions were the rare exception. And only occasionally, as with Michael Faraday, was a government pension granted a needy genius whose achievements were of demonstrable value to the entire kingdom.

For a zealous reforming engineer like McAdam, therefore, who had exhausted his resources in far-flung researches and wide travels dispensing his findings, the outlook was not bright. In lieu of government fees or a pension he turned to the possibility of a government or parliamentary grant. The practice of petitioning, or "memorializing," public authority when one was desirous of either reform or compensation was not unknown and had sometimes resulted in surprising success. Reference has previously been made to McAdam's four earlier known memorials -- to General Sir William Howe in 1778, to the Treasury in 1784, to Parliament in 1811, and to the Board of Agriculture in 1819. He submitted at least four other memorials between 1819 and 1823, in each case seeking a public grant to cover expenses he claimed to have incurred in researches since 1794 and in giving aid and advice to turnpike trusts since 1816.

In November 1819 he inaugurated a six-year struggle for

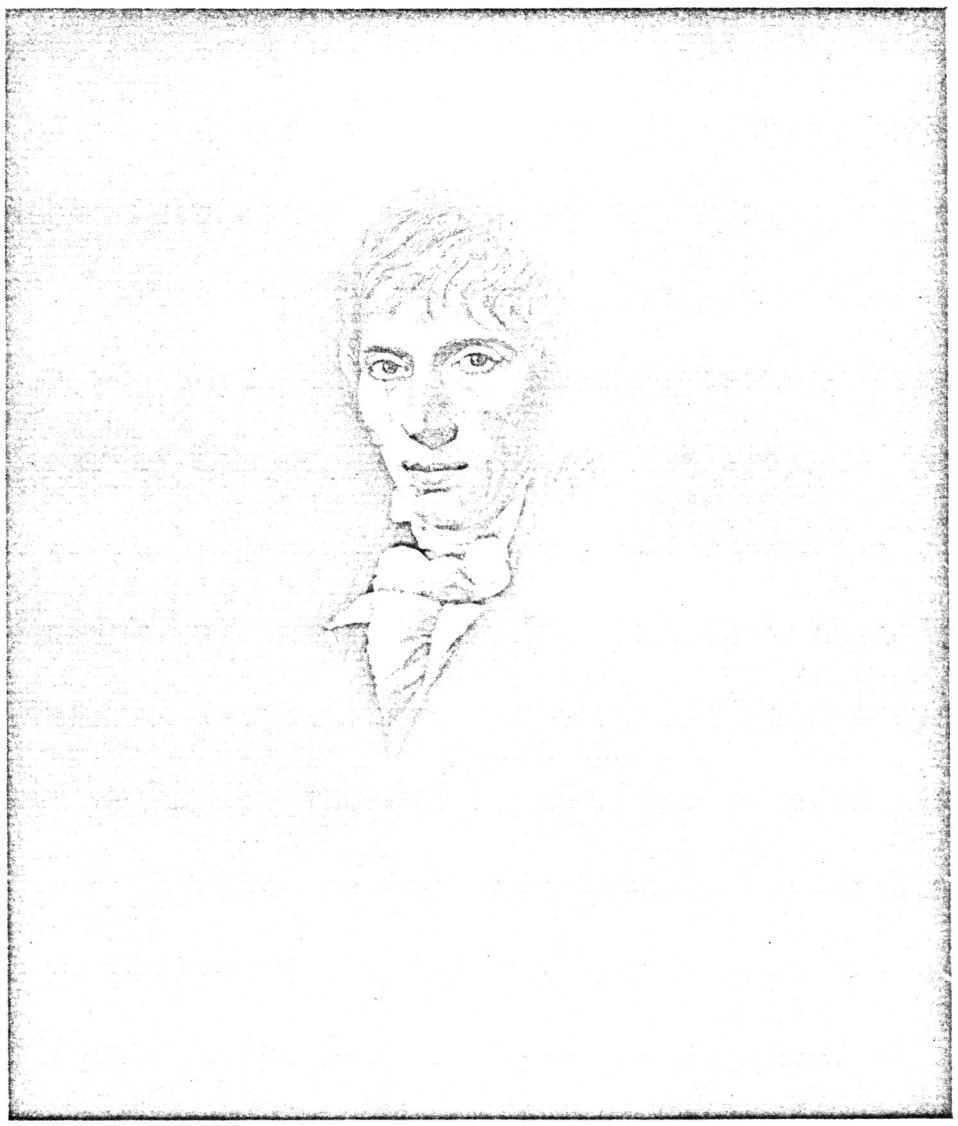
reimbursement and compensation by petitioning the Treasury. His plan to seek a public grant apparently originated in 1817, when, according to the Earl of Chichester, he declined remuneration by the Lewes Trusts.[5] He said he preferred to wait. If his system were productive of public good he would be satisfied to leave the matter of compensation to the honor of his country. To this the Earl agreed, adding that to accept a salary or any fees might impede the dissemination of the system.

This idea of compensation, vague and visionary in 1817, seemed capable of attainment by late 1819. In March of the latter year he claimed that he had been consulted by thirty-four sets of turnpike trust commissioners representing thirty-four trusts in thirteen countries.[6] And on 25 June 1819 the Select Committee on Highways issued its report enthusiastically lauding McAdam and his work. This phenomenal success after only three brief years of professional endeavor undoubtedly persuaded McAdam that the hour was propitious for initiating a petition for a public grant.

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5 Evidence given to the "Select Committee on Mr. McAdam's Petition," 3 June 1823, Parliamentary Papers, 1823 (476) V.53. See above, pp. 288-292.

6 Evidence given to the "Select Committee on the Highways of the Kingdom," 4 March 1819, Parliamentary Papers, 1819 (509) V.339.



JOHN LOUDON McADAM

From an Engraving by C. Turner

Accordingly, in November 1819 McAdam formally memorialized the Right Honorable Nicholas Vansittart, the Chancellor of the Exchequer. He claimed to have traveled untiringly throughout the island for some twenty-five years while investigating and comparing methods of road construction. There then followed four years of practical experience at Bristol and Bath, he related, "from thence /the system/ spread into almost every county in the south of England, and is rapidly advancing in other parts of the kingdom." His three sons, he added, to the neglect of their personal fortunes had dedicated themselves to the same task, all the family devoting themselves unstintingly to the task of establishing the superior McAdam system throughout Great Britain. Therefore, he wrote in conclusion, in view of the great service he had gratuitously rendered his country, he felt no hesitation in calling upon a grateful nation for a partial compensation for his time and expense.

This was not the first that Vansittart had heard of McAdam. In July that same year the Earl of Chichester had written to him in behalf of McAdam, supplementing, he said, the recommendation of a "Mr. Gladstone."[7] At great length Chichester

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7 7 July 1817. A certified copy of this letter was enclosed in a letter from James McAdam to Lord Viscount Melville, 11 July 1819, Collection "F," Bridges, Canals, Roads, in

reviewed McAdam's professional career, and, while recognizing his services to the Post Office, urged his compensation.

The rather daring and presumptuous November memorial was on 26 November referred to the Postmasters General, Chichester and Salisbury, who reported back highly favorably on 20 December, enclosing a strong endorsement by Charles Johnson, Superintendent of Mail Coaches, which set forth McAdam's effectiveness.[8] McAdam wrote a supplementary letter on 31 January 1820, noting his financial distress and requesting that the processing of his claim be expedited. On 22 February the Treasury again asked for the advice of the General Post Office.[9] Much impressed by a strong "Certificate and Recommendation by several peers and Members of Parliament... respecting Mr. McAdam's claim for remuneration," signed by twenty-six persons,[10] the Treasury suggested an advance of £2,000.

In glowing terms the Postmasters General gave McAdam their unequivocal support:

Scotland, 1782-1841, III, A, Letters Concerning London-Edinburgh Road, Folder 3, Items V and VI (British Library of Political and Economic Science). James was soliciting the aid of Melville in his father's behalf.

8 These letters are printed in extenso as Appendixes C and B, respectively, to the 1823 Report. Johnson's letter was dated 8 December 1820.

9 1823 Report, Appendix E. This letter was written by George Harrison.

10 Ibid., Appendix D.

> We beg leave to reply, that we consider Mr. McAdam's system of making and repairing roads as deserving of every encouragement, that its beneficial results are acknowledged in every part of the various districts of the country where the trustees of roads have availed themselves of his assistance and suggestions, that he has in the most disinterested manner given every facility to other persons, with the same general object, and that the observations of our surveyor of mail coaches... have acquired additional force from the experience of the last two months past, in which the mail coaches have had to contend with unusual difficulties; for it has been evident, that on such parts of the roads where Mr. McAdam's system has been pursued, the public mails have experienced less interruption than where the old system was pursued in.

McAdam's reforms, continued the Postmasters General, in providing the nation with good roads, expedited the mails and otherwise promoted the "general convenience." Since the advantages of his system were so obviously connected with the public interests of the General Post Office, they said, they were willing to advance him the suggested amount from postal funds.[11] Accordingly, on 29 February McAdam was presented with a draft in the amount of £2,000.[12]

But McAdam was by no means satisfied with the grant of £2,000. His work was given further favorable publicity on

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11 This letter (23 February 1820) was delivered to the 1820 Select Committee on Turnpike Roads and Highways by Francis Freeling, the Chief Secretary of the General Post Office; he testified before the committee on 5 July. See Parliamentary Papers, 1820 (301) II.301.

28 June 1820, when the Select Committee on the Holyhead Road made public its annual report. Quoting extensively from McAdam's testimony in 1819 before the Select Committee on Highways, the Holyhead Road Committee urged each turnpike trust along the route of the Holyhead Road to follow the suggestions made by McAdam, especially in the exclusive use of small, clean, artificially-broken stone. He was handsomely lauded as follows:

> As the St. Albans' Trust have very wisely placed the care of their Road under Mr. McAdam, the other Trusts will soon be able to see how much more economical and effectual his method is than that which now prevails,...[13]

The practices of Thomas Telford, the engineer in charge of the committee's work on the Holyhead Road, was likewise commended as exemplary, and no differences in the methods or ability of the two engineers were noted.

Earlier the same year the House of Commons had appointed a Select Committee on Turnpike Roads with explicit instructions to consider not only all legislation and methods relevant to turnpikes and highways, but to receive McAdam's petition (made in the spring) and make a recommendation. Taking evidence from

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12 "An Account of the Sum or Sums of Money Given to Mr. McAdam...," Parliamentary Papers, 1821 (424) XXI.255.

13 "Second Report from the Select Committee on the Road from London, by Coventry, to Holyhead," Parliamentary Papers, 1820 (224) III.

late in May until mid-July, the committee sought information of the different aspects of its assignment. For example, on 29 May McAdam testified at length about the various types and availability of road metals, and in regard to his extensive professional activities.[14] James McAdam and other officials likewise presented their views, and when mentioning John Loudon McAdam, they were unanimous in praising his work. Of greatest significance was the generous praise of the illustrious Sir Henry Parnell, who as chairman of the Select Committee on the Holyhead Road was well-informed as to current conditions. In urging consolidation of many trusts, especially in the metropolitan area, he emphasized the methods of separating and breaking stones "recommended and acted upon with so much advantage by Mr. McAdam and Mr. Telford."

It was at this point that Francis Freeling, Chief Secretary to the Post Office, reviewed for the committee the history of McAdam's relationship with the General Post Office. Without qualification he put his department squarely behind McAdam's claim, alleging that the Post Office considered McAdam's merit

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14 "Report from the Select Committee on the Turnpike Roads and Highways in England and Wales," Parliamentary Papers, 1820 (301) II.301, Appendixes C and D.

entitled him to additional compensation.[15] Charles Johnson supported Freeling's contentions.

McAdam followed Freeling and Johnson to the stand the same day. He presented to the committee a detailed expense account, claiming to have traveled some 30,000 miles, expending 1,920 days, in research journeys prior to August 1814. By General Post Office travel allowance schedules (considered a fair and convenient guide) this would have entitled him to a reimbursement in the amount of £5,019, "Which sum [he declared] I may fairly state to have been expended by me on this service...." He was prepared, further, to submit substantiating memoranda, and to take oath.[16] He then painted a glowing and detailed picture of his professional service at Bristol and elsewhere in 1815 and the years following. To clinch his case he claimed that

> ...in no instance have I consented to receive any remuneration for my labour, my sole object having been to promote and extend a better and more economical system of road-management, in the pursuit of which, success has succeeded my most sanguine expectation.

In his peroration perhaps he exaggerated:

> In the prosecution of this most laborious work, no personal inconvenience, or severity of fatigue, no inclemency of season,

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15 5 July. See above, pp. 305-307.
16 He did this formally on 8 March 1821.

or difficulty of approach, has deterred me from the sole object I had in view.

Wherever the roads were worst, and the season most severe, there and then I considered it my duty to be posted; for it was only by accurate observation at that time of the year, that the most useful part of my inquiries could avail, as showing, at the breaking up of the frosts, the effect produced on the various materials and differently formed roads, of Great Britain.[17]

The Committee of 1820 in its report professed to be "clearly of opinion" that McAdam's laborious researches and the wide dissemination of his findings at great personal sacrifice of time and money entitled him to a reward at the hands of the public. The committee, therefore, in view of the special efficacy of McAdam's achievements, referred his petition back to the General Post Office with a very favorable recommendation, suggesting that from their revenues the General Post Office make him a further grant. Thus did Parliament neatly toss McAdam's memorial back into the laps of the Postmasters General with so impressive an endorsement that McAdam's success seemed assured.

In September the Treasury forwarded to the General Post Office a copy of the Report of the 1820 Select Committee together with McAdam's application for expenses and remuneration. On 18 November the Postmasters General replied,

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17 Report of the 1820 Select Committee, loc. cit.

recommending a final grant to him of £2,000-£2,500. They related that McAdam had in the meantime applied for his expenses since 1814 (totaling more than £2,700), raising his claim from £5,019 to more than £7,000. They considered that he would be satisfied with £2,000-£2,500,[18] and on 14 November gave him a second draft for £2,000.[19]

Four thousand pounds, however, did not satisfy this doughty old Scot. He immediately demanded the balance he felt due him. Again the Treasury addressed the General Post Office, this time asking if the journeys undertaken by McAdam were authorized by that department. Chichester and Salisbury personally replied that McAdam had never been officially employed by the Post Office, but that as previously outlined, his advice had proved of great value to them, and his "charges" (claims) were not unreasonable.[20] On 6 June 1821 McAdam again besought the early attention of the Postmasters General, but was informed by Harrison that "they did not feel justified in directing the issue of any further sums to him unless under the

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18 Report of 1823, Appendix H.

19 "An Account of the Sum or Sums of Money given to Mr. McAdam...," Parliamentary Papers, 1821 (424) XXI.255.

20 Cited by McAdam in his Memorial of 1823 to the Postmasters General. A photostat of this memorial is in the Library of the General Post Office, London.

express sanction of Parliament."[21]

The matter apparently rested there until mid-1822. Whether McAdam decided to drop the issue, or thought it wiser to await a more propitious day, is not known. In any event, he did not appear before the 1821 Select Committee on Turnpike and Highway Acts, nor was any reference made to him or his work in the report of that committee.[22]

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From David Ramsay, the young Edinburgh lawyer who was the husband of McAdam's niece Helen Shaw, we learn when McAdam's struggle for public compensation was again renewed. In June 1820 Ramsay reported seeing McAdam alone in London, his daughters having remained in Bristol with Mrs. McAdam, who was ill. Again in London in 1822, Ramsay wrote to his wife on 22 February, "Your uncle is expected here every day." On 3 May the same year he reported from London, "Your uncle is here -- in the Salopian [Coffee House]. He came two days ago to endeavor to get a final settlement with Government, in which he hopes to

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21 Report of 1823, Appendix I. These letters are dated 18 December 1820 and 8 February, respectively.

22 Parliamentary Papers, 1821 (747) IV.343.

succeed. What he has got already does not cover his expenses...."[23] McAdam's specific achievements on this occasion are not known.

Subsequent developments indicate McAdam must have "pulled many wires" and accomplished much spadework between May and January; for on the eleventh of the latter month he memorialized the Postmasters General reviewing both the history of his service to his country and his efforts to secure compensation, claiming that £2,857 was still due him. Recognizing that constitutional forms precluded his directly addressing Parliament without the consent of the crown, he hoped the Postmasters General would take cognizance of "the hardship of his situation, /he/ having expended a large sum of his private fortune and the most valuable years of his life in a service from which the public" was deriving "extensive advantage."[24]

In a memorandum to his superiors three days after McAdam's urgent plea arrived at the General Post Office, Secretary Freeling outlined his views of the entire situation. This last

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23 Ramsay to his wife, 15 and 24 June 1820, 18 February and 3 May 1822, Shaw Kennedy MSS. (Mr. H. Shaw Kennedy, London).

24 A photostat of this memorial, accompanied by Freeling's notes, is in the library of the General Post Office, London. McAdam had scaled down his post-1814 claims from more than £2,000 to £1,837.17s.6d.

memorial seemed almost impertinent, he declared, and he could not recommend any further grants now that McAdam had already secured £4,000 from the postal revenues. Chichester and Salisbury scribbled their comments on the bottom of the note, expressing favorable opinions of McAdam, and suggesting (directing) the forwarding of his request to the Treasury with a mildly favorable recommendation for attention. One week later Freeling again submitted his views to the Postmasters General, and again he was overruled, Chichester commenting, "we incur no responsibility by so doing /forwarding McAdam's memorandum to the Treasury/ and we may injure the Individual by refusing...." Thus it was that McAdam's request was officially forwarded again to the Treasury by letter endorsement on 6 February:[25] the ancient political game of "passing the buck" seemed to be in vogue in 1822! McAdam's original request, in one form or another, had traveled between the Treasury and the General Post Office no less than seven times in thirty-nine months!

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McAdam's persistence (or was it temerity?) finally induced Parliament in 1823 to appoint a "Select Committee on Mr.

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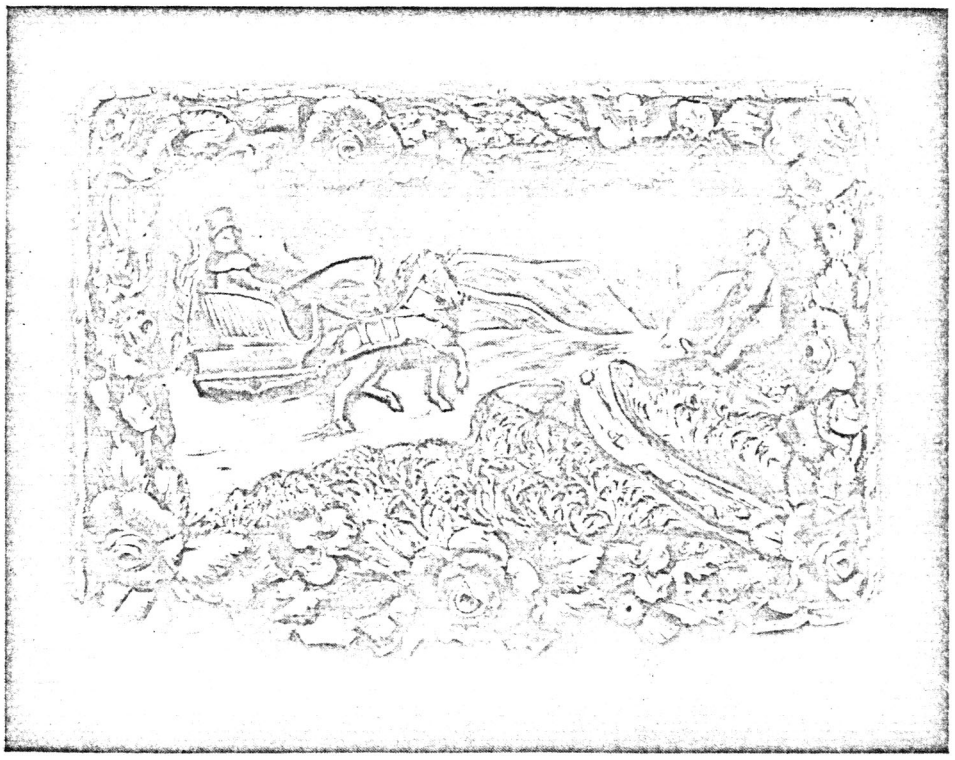
25 Report of the 1823 Committee, Appendix K.

McAdam's petition, Relating to his Improved System of Constructing and Repairing the Public Roads of the Kingdom."[26] This committee, under the chairmanship of Sir Thomas Baring, Bart., evidenced a very strong predilection to McAdam's cause. It conceived its proper function to be the complete review of all the steps taken by McAdam to secure compensation, and of the resulting action by government agencies. All pertinent memorials and correspondence were reviewed and collated. McAdam was interviewed at length on three occasions, the questions asked him pertaining to the biographical details of his life as well as his professional interests and career. He presented a strong case, summarizing in detail his achievements, with emphasis on the fact that he had advised scores of trusts and disseminated his methods through his sons and proteges. He also spoke of his writings. All this effort -- most of it gratuitous, he claimed -- had dissipated his fortune. On 7 June his testimony reached a climax:

> I would therefore argue, that my family are worse paid for their services than other persons in the same situation, who are profiting by the system that I have laid down, and that the country is very willing to pay other persons larger, or fully as large, sums as they pay to my sons, whenever they can find the same ability, skill and industry; that my sons have started only in competition with every other person in the country in this business; that I conceive that the money my sons have is

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26 Parliamentary Papers, 1823 (476) V.53.



SNUFF-BOX PRESENTED WITH GOLD WATCH AND SEALS BY COMMERCIAL TRAVELLERS TO JOHN LOUDON McADAM

their own. I never even inquire about it, nor ever knew, before I came before this Committee, what my sons had, I did not know even the names of the Trusts that they have in their charge, so far did I conceive myself not entitled to interfere in their private affairs. If my sons have succeeded in this line, or any other line better than other people, I must attribute it to their own exertions and industry, and [sic] ought to receive the whole remuneration themselves. I am exceedingly happy that my sons are able to be useful members of the community, and it is certainly a great gratification to me that it is so; but I can by no means admit that it is payment to me by the general Public for any services I have performed, that I have been enabled to rear up three useful members of society.... Perhaps I am a little vain of this system of road-making that I have introduced into the country, and perhaps gentleman will not think that it is very criminal vanity. Certainly I should have been very sorry that it should have been lost, and for that reason I induced my sons to give up their business, and come and assist me in it. It did not strike me at that time that it would have come into the imagination of any person to impute to me that as a fault for which I was to incur the forfeiture of any claim I had on the Public; and I consider myself now in the hands of this Honourable Committee to do me justice in whatever they may think I deserve.[27]

Nor did McAdam lack verification. Each of his sons gave evidence on his behalf; various friends and acquaintances -- turnpike trust officials, coach and postmasters, carriers, innkeepers, and others (including Lord Viscount Ebrington, M. P., and James O'Calleghan, M. P.) -- lauded the man and his work; but his "star witness," who clinched his case, was his friend and constant patron, the Earl of Chichester. Speaking both as one of the Postmasters General and as a trustee of the Lewes

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27 Ibid.

Trust, Chichester detailed his relationship with McAdam and gave him his unqualified endorsement. Visiting him in Sussex "as a gentleman and as a brother surveyor," McAdam received no fees for his survey and recommendation, not even his expenses.

> ...As far as my observation has gone /he declared/, the introduction of the system has been attended with the greatest possible benefit to the country, not merely in making the roads, but in introducing a system of management and employing the poor, which I do not think any other system could do.[28]

There was opposition, however, despite overwhelming evidence in McAdam's favor. William Lester, an unemployed surveyor who claimed to have been in the service of a parish in Northamptonshire about 1787, accused McAdam of infringement "upon his literary property," alleging he had published in detail in 1803 and 1804 the system capitalized upon by McAdam after 1816. He could prove nothing, however, being unable even to produce a copy of his "book." The committee in its report scarcely mentioned his name, and totally discounted his testimony.

More serious, however, was the attack by McAdam's old Bath rival, Benjamin Wingrove, who appeared before the committee on 9 and 11 June. Disclaiming any hostility to McAdam, he said he had developed an engineering methodology superior to McAdam's,

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28 Ibid.

and considered that any grant bestowed by Parliament should be his. When finally compelled to state categorically wherein his plan was superior, he weakly muttered, "I think I give my roads a little more convexity." Throughout he revealed himself to be a highly contentious and unattractive personality. The committee dismissed his derogatory evidence with a word.

In its formal report, the Select Committee reviewed the entire history of McAdam's "quest for compensation." After noting the £4,000 already given him, it rendered an opinion as follows:

> ...that the sum of 2,000 l. or 2,500 l., in addition to his expenses, to be calculated after the same rate of allowance as is granted by that office /Department of the Post Office/ to the Surveyor or Superintendent of Mailcoaches, will be but a moderate compensation to Mr. M'Adam for his great exertions and very valuable services.[29]

And further, the committee urged the House of Commons to take the entire subject of roadmaking and trust management under careful and even urgent consideration, especially as pertaining to the macadamization of paved city streets. This practice, they commented, was about to receive a fair trial, for James McAdam had already been engaged to convert the pavement of St.

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29 Ibid.

James Square and "over Westminster Bridge and its boundary," two widely separated areas in the metropolis, to macadamized roads.

-6-

Despite such a glowingly favorable report, and in addition a complimentary reception by the public press,[30] Parliament apparently did not even debate the proposed grant that year.[31] Presumably, both the Chancellor of the Exchequer and McAdam were awaiting the creation of a consolidated metropolitan trust, to which McAdam could be appointed general surveyor. This possibility had been aired in the 7 June 1823 questioning of McAdam by the Select Committee, and McAdam had admitted he had deferred petitioning Parliament until that year because of a tacit agreement with the Chancellor in regard to the prospective appointment. But the consolidation had not materialized -- thus he had written his January 1823 Memorial. It is possible that there was no immediate grant made him in the autumn of 1823 because of a similar understanding with parliamentary leaders.

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30 The Times, 12 August 1823, p. 3, col. 2.

31 Hansard has been carefully checked in the hope of discovering what transpired on the floor of the Commons and Lords regarding McAdam. No mention of him is apparent until 15 April 1825.

In any event, consolidation being delayed through 1824 and into 1825, the proposal for a grant of £2,000 to McAdam was placed on the calendar of the House of Commons in early 1825. Hansard records that Henry Brougham on Friday, 15 April of that same year, requested the Chancellor to delay debate on the issue.[32] Holme Summer likewise urged delay on the grounds that his motion to require a report from the McAdam family on all grants they had received had not been complied with; but John Maberly urged immediate action. To foster good will, however, the Chancellor, who was impatient to proceed with the subject, agreed to delay the vote a fortnight.

In the meantime (26 April) McAdam and his sons submitted the required affidavits. The father affirmed that he had received only two grants from the government, both in 1820, totaling £4,000; in addition he had been paid his annual salary of £500 by the Bristol Trust. His son William and grandson William, reporting together, stated they had been paid a gross sum of £14,222 during seven years (1818-1825); James' gross annual income was said to be more than £3,400; while young Loudon said he was receiving only about £630 per annum.[33]

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32 Hansard, Parliamentary Debates, N. S. XII, 1352-1354.

33 "Mr. M'Adam; Salaries and Gratuities received by, or due to, from Turnpike Trusts, etc., Return to an Order of the

It was not until 13 May that the Commons finally dealt with the proposed grant. In introducing the subject, the Chancellor admitted his earlier reluctance to sponsor such a resolution; but he conceded that as the realization of McAdam's unselfish contribution to the national weal dawned on him, he grew disposed to sanction his petition. The present government-sponsored motion, he added, was the direct result of the favorable report of the Select Committee on McAdam's Petition in 1823.[34]

Joseph Hume immediately took the floor, asserting the greater genius and prior claims of William Lester and James Paterson. Why had not McAdam been remunerated by the trusts he had advised, he demanded; and was not McAdam, while making his researches, otherwise generally employed? And again, why did such a proposal come from the government, a factor which stifled free debate?

Nicholson Calvert supported the government in view of the great improvements made by McAdam. But Sir M. Cholmely considered the £4,000 already granted adequate compensation. Sir

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Honorable House of Commons, dated 22d April 1825," Parliamentary Papers, 1825 (248) XX.149.

[34] Hansard, op. cit., N. S., XIII, 593-599. The succeeding summary of the debate is taken from this same source.

Thomas Baring noted that twenty such grants had been made in the last twenty years to meritorious public benefactors -- why should not McAdam receive this modest grant? Holme Sumner acknowledged the great public debt due McAdam, but claimed that the roads in his home locale had been made for fifty years on the principles popularized by McAdam only recently; that the McAdam family had received an income of £41,000 from the various trusts in the past five years, while living in a style not befitting "the economical role of a surveyor of the road...;" and that this raid on the public purse was a dangerous precedent. Sir Edward Knatchbull, who in the preceding February had led the opposition to the consolidation measure that would have created a single Metropolis Turnpike Trust, again opposed what he felt to be the cupidity of McAdam, and was supported by T. G. Estcourt.

Fysche Palmer, Hart Davis, Sir Robert Wilson, and Sir Thomas Acland, however, staunchly defended both the character and ability of McAdam. On vote the government motion carried, eighty-three to twenty-seven, a majority for McAdam of slightly more than three to one. Shortly thereafter he was paid the authorized sum of £2,000.[35] Thus was a final grant given to

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35 Hansard, op. cit., N. S., XV, 20 March -- 31 May 1826, p. xxii, "Appropriation-Finance Accounts, Class VI, Disposition

him, making in all a total remuneration of £6,000 from the national treasury.

-7-

Many commentators declare that McAdam was given £10,000 as a consequence of his various petitions, e. g., Cates,[36] Gregory,[37] Latimer,[38] the Webbs,[39] and Clear.[40] Salkield[41] says he was granted only £2,000; the Dumfries and Galloway Courier obituary (7 December 1836) states the grants totaled £4,000; DeLeon[42] lists the sums at £5,000; and Smiles[43] writes that he received all his expenses plus £2,000! A close

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of Grants."

36 William L. R. Cates, A Dictionary of General Biography, 4th edition (London, 1885), p. 797.

37 J. W. Gregory, The Story of the Road (London, 1931), p. 235.

38 John Latimer, Annals of Bristol in the Nineteenth Century (Bristol, 1887), pp. 63-65.

39 Sidney and Beatrice Webb, The Story of the King's Highway (London, 1920), English Local Government Series, p. 175.

40 C. R. Clear, "McAdam and the Post Office," a paper read to the Postal History Society on 24 October 1936. A typescript copy was examined in the Headquarters Library of the General Post Office, London. Clear claimed that the 1823 Committee recommended -- and McAdam received -- the payment of nearly £8,000 to cover his expenses, and a "reward" of £2,000. Except for this and one other lapse (he writes that McAdam was named the first General Surveyor of the Metropolis Turnpike Trust in 1827), his paper is an excellent one.

41 Thomas Salkield, "John Loudon McAdam, the Great Road-builder," East Hertfordshire Archaeological Society Transactions, Pt. III, 1901, p. 312.

scrutiny of the primary sources, however, makes it clear that McAdam was given three grants only: two "advances" by the Treasury in 1820, and a direct grant on vote of Parliament in 1825, in all £6,000.

Both in his own day and later, McAdam's quest for compensation brought down on his head a rain of criticism. Sir Alexander Gibb in his otherwise excellent biography of Sir Thomas Telford quotes Holme Sumner's derogatory remarks (see above), while omitting any reference to the plaudits of Calvert, Baring, Palmer, Davis, Wilson, and Acland, uttered on the same occasion.

> ...but it must be admitted [writes Gibb] that his business methods laid him open to criticism.... He associated with himself a number of his sons and relations, and together they scoured the country, disregarding all existing connection of engineers with the various road authorities. He was a past master in the art of submitting petitions and pleas to Government and Parliament, and as a result obtained several grants as well as receiving very large sums from the numerous counties and trusts that employed him....[44]

But this quest has by no means always been construed to his discredit. Most writers have seen in the three grants the

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42 Solon DeLeon, "John Loudon McAdam," Encyclopedia of the Social Sciences (New York, 1933), IX, p. 645.

43 Samuel Smiles, Lives of the Engineers (London, 1861), II, p. 430, note.

44 The Story of Telford (London, 1935), p. 178.

admission of "Government and Parliament" that McAdam's innovations and professional services were meritorious, and constituted a valid public service for which the public merely recompensed the benefactor. In the eighteen-twenties the sum of £6,000 was by no means negligible in real value. All the public authorities who have left a record of their opinions seem to have held McAdam in high esteem. The three-to-one decision of the House of Commons in 1825 left little to be desired; the general approbation of coachmen, innkeepers, and turnpike trustees, as well as the public press of the day, is indicative of intelligent appreciation of the man and his work. All these, and the unanimous laudation by the three Select Committees of the House of Commons dealing with him (1819, 1820, and 1823), reveal the degree to which the "Colossus of Roads" had captured the imagination of the nation, and dominated the coaching era. Truly has Treveleyan written that not only was macadamization "a practical work of great public utility; /but/ it became the symbol of all progress" to the generation that followed Waterloo.[45]

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45 Treveleyan, op. cit., p. 166.

CHAPTER XII

TELFORD AND PATERSON

That McAdam attained such general notoriety without arousing at least a measure of opposition could hardly be expected. Had his humility exceeded even his ability, at least a mild professional jealousy would have developed. But the character of McAdam, while possessing many admirable qualities, was wanting both in modesty and discretion. Consequently, some surveyors resented the parliamentary recognition given him in the grant of £6,000, and his numerous claims to originality and superiority seem to have angered a number of others. But the opposition of a few jealous rivals neither diminished the fame of McAdam nor deterred him from the aggressive pursuit of new adherents to his system and a share of the public funds. Only Thomas Telford, known as the Pontifex Maximus of civil engineering in Great Britain, was a serious rival to the absolute supremacy of the Colossus of Roads.

Telford was in his generation easily the most versatile civil engineer in Great Britain, if indeed not in all Europe. The mere listing of his principal projects, with only a phrase devoted to each one, requires thirty-one pages in an appendix

to Sir Alexander Gibb's definitive biography.[1] His varied achievements embrace the construction of twenty-nine canals, one hundred forty bridges (including among the first of iron and the greatest suspension bridge of his era), and numerous aqueducts and docks; he planned, built, or enlarged most of the harbors of England, Scotland, and Ireland, including the ports of London, Peterhead, Aberdeen, Portpatrick, Glasgow, Leith, Plymouth, Liverpool, Belfast, and Dover; he was consulted about fen drainage and public waterworks; he made plans for the improvement of the navigation of the Mersey, Severn, Clyde, Weaver, Dee, Thames, Tay, Forth, and Avon Rivers, and he completed many of these projects; furthermore, he was frequently engaged to recommend and effect the improvement of various lines of road in the kingdom.

Like McAdam who was one year his senior, Telford was by birth a Scot. The son of a poor Dumfriesshire shepherd, he was required to secure most of his general and professional knowledge without formal training. Nevertheless, this tireless genius held engineering posts of great responsibility from his thirtieth year (1786) until his death in his seventy-seventh.

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1 The Story of Telford: The Rise of Civil Engineering (London, 1935), Appendix A.

Certainly after the decease of Rennie in 1821 Telford had no peer in all the kingdom.

Within the more limited scope of highway engineering, however, McAdam was much more widely known than Telford, and was equally respected by Parliamentarians and engineers. Though brilliant and versatile, Telford was quiet, stolid, and colorless. McAdam was by contrast impetuous and vocal, an unmitigated extrovert with a missionary zeal to convert all the island to his system of road construction, repair, and administration. It was undoubtedly this spirit of enthusiasm which made the name "McAdam" and its derivatives synonymous with almost all that was considered excellent in the roads of the nineteenth century. His prestige even today is such that derivatives like "tarmac" are coined to designate new surfaces of which McAdam never dreamed.

Although James Paterson and several other critics of McAdam were outspoken in their opposition to his claims before Parliament,[2] there seems to be no record of any criticism uttered by Telford about McAdam. Mild and unobtrusive, the great Telford seemed always to prefer to remain silent when he could not praise. Once when pressed by Paterson to express an

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2 See below, pp. 402-408.

opinion concerning what Paterson called "all that noise" created by McAdam, Telford quietly replied that McAdam "certainly had not the merit of anything new, in the way of discovery or invention, for he was only acting on principles generally acknowledged and long ago partially practiced;..." But he went on to say that McAdam had greatly improved the roads in the west of England, where his system was in a measure novel, and that McAdam had performed a very great service "by turning people's attention to the improvement of their roads...."[3]

Most writers who comment on McAdam include in their praise for him an endorsement of Telford. The Westminister Review, for example, lauds "the almost Roman genius of Telford and M'Adam" in improving the turnpike system.[4] Geoffrey Boumphrey in British Roads writes of the pair as "Britain's two greatest roadmakers,"[5] while Penfold,[6] Eldridge,[7] Curtler,[8] Jackman,[9]

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3 James Paterson to Sir Thomas Baring, M. P. (printed letter), 30 November 1824, Tracts, 8vo., vol. 4, no. 6, p. 9 (Library of Institute of Civil Engineers).

4 Vol. LXIX, 1848, Article VII, p. 131, in a review of the book Road Reform (Edinburgh, 1845), by William Pagan.

5 (London, 1939), p. 106.

6 Charles Penfold, A Practical Treatise on the Best Mode of Repairing Roads, in the Library of Useful Knowledge (n. p., 1834-1840), p. 2.

7 Maurice O. Eldridge, "Mending Our Ways," Outing, XLVII, 1905-1906, p. 12.

8 W. H. R. Curtler, A Short History of English Agriculture (Oxford, 1909), pp. 222-223.

the Webbs,[10] Gregory,[11] Shand,[12] Salkield,[13] and Gibson[14] concur in praising the great revolution in highway transportation wrought by McAdam and Telford. Likewise, the Encyclopaedia Britannica[15] and the Encyclopedia of the Social Sciences[16] group the two men together and characterize the Coaching Era by reference to them, and to them alone.

It would serve no good purpose to seek to determine whether McAdam or Telford was the greater highway engineer. Both men were extremely capable, and together created the smooth, durable roads over which graceful post chaises and lumbering freight wagons traveled at maximum speed and minimum discomfort. Telford's biographer claims for him undisputed superiority, although admitting that McAdam became far more widely known

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9 William T. Jackman, The Development of Transportation in Modern England (Cambridge, 1916), I, pp. 268-269.

10 Sidney and Beatrice Webb, Story of the King's Highway (London, 1920), p. 176.

11 J. W. Gregory, The Story of the Road (London, 1931), p. 233.

12 P. Morton Shand, "John Loudon McAdam," Architectural Review, LXXX, July 1936.

13 Thomas Salkield, "Roads -- Rigid and Resilient," The King's Highway, VIII, No. 1, January 1937.

14 George McLean Gibson, "Some Thoughts on the History of British Highways," The Structural Engineer, XXII, June 1944, p. 280.

15 (Chicago, 1947), XIV, p. 547, Unsigned article entitled "John Loudon McAdam."

16 (New York, 1933), XIII, pp. 403-404.

because of methods which were "simpler, quicker, cheaper, and /better/ answered the immediate purpose."[17] DeLeon, however, declares that "McAdam did more than any other man of his time to make highway traffic quick, comfortable, and safe from accidents as well as less destructive to draft animals."[18] Jackman thinks Telford the greater roadbuilder,[19] yet the Webbs and Gregory[20] praise McAdam more highly, the Webbs in particular asserting, "And it is thus to McAdam rather than to Telford that we owe such modicum of reform as was effected in the general law and administration of roads between 1810 and 1935."[21]

There was really little difference in the methods of McAdam and Telford. Both men clearly emphasized the necessity of proper drainage and moderate camber. Each saw the advantages of using artificially-broken small metal unmixed with earth or other binding material. Both urged that constant care be given road surfaces by trained "roadmen," and advised Parliament to consolidate turnpike administration. Each man considered the lack of trained surveyors a chief impediment to reform.

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17 Gibb, op. cit., pp. 175-176.
18 Solon DeLeon, "John Loudon McAdam," Encyclopedia of the Social Sciences, IX, p. 645.
19 Jackman, loc. cit.
20 Gregory, loc. cit.
21 Webb, loc. cit.

Yet these two engineers were poles apart in one important particular. Telford's roads were invariably constructed with a heavy foundation of closely-set stone blocks. This sturdy foundation, about seven inches thick, was formed by placing large stones with the narrow sides uppermost, and with stone chips hammered or packed in between. Over this Telford laid six inches of smaller metal, and topped the road with about two and one-half inches of still smaller metal or gravel. McAdam, on the other hand, steadfastly asserted (as in his letter in 1820 to General Sir James Stewart of Coltness[22]) that no foundation other than the dry earth was required, or even desired; and his roads were consistently constructed of merely a ten or twelve-inch layer of clean hard road metal which, he insisted, would solidify into an eminently satisfactory road.

Until the era of rapid modern highway transportation with the concurrent development of pneumatic tires and new types of highway surfacing, McAdam's methods seemed satisfactory. Certainly they were less expensive than the Telford system. Major Thomas Salkield in discussing modern aspects of rigidity and resiliency states that neither McAdam nor Telford argued in favor of rigidity. McAdam, he continues, probably placed too much

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22 See above, pp. 296-298.

confidence in the stability of every type of subsoil. His simple and less expensive method was probably adequate for his day, but Telford's "bottoming" was undoubtedly superior during the transition to the modern era. The twentieth century, however, requires a road resilient but reinforced in a manner which neither McAdam nor Telford in their day saw fit to provide.[23]

George S. Barry, F. S. I., M. Inst. M. & Cy. E., who has been County Surveyor of Ayrshire for many years, wrote in 1936 that although a road constructed according to McAdam's system could not possibly stand up to present-day traffic, "it was sufficient for the needs of his time." Indeed, it was only toward the end of the nineteenth century that Telford's foundation was adopted for the more heavily-traveled roads, "but the bottoming of roads did not become a general practice until the early years of the 20th Century." His general conclusion is that Telford's system provided stronger, more durable, yet costlier roads which could have been generally adopted only after long delay. McAdam, on the other hand, "gave to the country a system which produced rapid results without increasing the normal cost of maintenance, and that was exactly what was

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23 Salkield, loc. cit.

needed at the time."[24]

Another expert, Maurice O. Eldridge of the United States Office of Public Roads, has more confidence in McAdam's "foundation of native soil," at least for roads at the turn of the present century. After detailing the methods of Tresaguet, Telford, and McAdam, he concluded that McAdam's engineering principles, especially his reliance on the adequacy of a dry earthen foundation to sustain the traffic of his day, were superior.

> Opinions differ /he wrote/ as to the relative importance of the services of Tresauguet /sic/, Telford, and McAdam in the working out of the great problem of a road construction. Tresauguet and Telford, especially the former, deserve the highest credit for the work which they did in modifying the old Roman method so as to make a practical method of construction for modern roads. McAdam, however, deserves to stand alone as the inventive genius, because his method was an original one, and because this method practically revolutionized the science of road building.[25]

Likewise of interest in comparing the two roadmakers is the matter of fees. McAdam, it has been noted, received £500 per annum from the Bristol Turnpike Trust for managing 177 miles of turnpike roads. Although advising scores of trusts from one end of the kingdom to the other during a period of

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24 George S. Barry, John Loudon McAdam, 1756-1836, Journal of the Institution of Municipal and County Engineers (London), LXIII, No. 10, 1936, pp. 39, 48.

25 Eldridge, "Mending Our Ways," loc. cit.

twenty years, he rarely (except in Perthshire[26]) received even the payment of his expenses. This he proved conclusively in his successful quest for parliamentary compensation.[27] For spending twenty-four or twenty-five days in inspecting and reporting on the Bath Trust in 1816-1817, for example, he and his son received fifty guineas -- a sum within tenpence of their minimum expense.[28] Again, in 1819 while traveling all the way from Bristol to examine the 273 miles of roads comprising the Edinburgh County Turnpike Trust, McAdam refused to accept any compensation other than his expenses, which amounted to £147.[29]

Telford, on the other hand, seems always to have been remunerated rather handsomely for his services. The Exchequer Papers in the Scottish Record Office (Edinburgh) contain numerous itemized receipts made out in Telford's own hand. A typical expense account covering a portion of his work on the Glasgow-Carlisle Road totaled £636. For his services on this

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26 See below, Chapter XIII.

27 See above, Chapter XI.

28 McAdam revealed this in testimony before the Select Committee on 7 June 1823; Philip George, Clerk of the Bath Trust, substantiated McAdam's statement before the committee the same day; see Parliamentary Papers, 1823 (476) V.53.

29 Edinburgh County Turnpike Trust General Meeting Minute Book, 1819-1823, entry for 1 May 1820 (County Buildings, George IV. Bridge, Edinburgh).

road he received three guineas per diem, a travel allowance of two shillings per mile, and in addition necessary sums for stationery, postage, and clerical and other assistance. He included in his expense vouchers an occasional item for "Refreshments in the course of the day... 5s."[30] By twentieth-century standards such fees and allowances seem almost penurious; but in a day when fifteen shillings per week were considered a living wage for a workman, Telford's per diem allowance and travel compensation must have seemed indeed generous. McAdam would undoubtedly have fared better had he demanded fees and a standard expense allowance. However, he considered that such a course would impede his usefulness and prevent the rapid spread of his ideas. Probably he was correct in that decision. But certainly the £6,000 he had received from the Treasury by 1825 in no wise paid even the expenses he incurred during the preceding twenty-eight years' intensive study and work on the roads of Great Britain.[31]

The services of both McAdam and Telford were utilized

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30 Repertory of Exchequer Records, Box 11, "Roads and Bridges," bundle "b."

31 As has been explained in Chapter XI, McAdam under oath declared that between 1798 and 1814 he traveled 30,000 miles in his researches, and computed that at standard rates his total expenses by 1823 amounted to £6,857. He contended that this sum represented nothing but bona fide expenses.

extensively in making and improving highways. Telford devoted most his time to civil engineering projects other than the construction of highways, and it is thus no wonder McAdam's operations on the roads of the kingdom were much more extensive.[32] Telford's work was by no means negligible, however. From 1801 to 1820 he was intermittently occupied with Highland roads and bridges, constructing or rebuilding in all some 920 miles of roads and 1,117 bridges -- truly an amazing example of early "regional planning," for he envisioned the economic and social rehabilitation of the entire Highlands through improved communication and transportation. In 1811 he made his first report on the road from London to Holyhead; in 1815 he was commissioned by Parliament to supervise the 153 miles of roads from London to Shrewsbury (under seventeen separate trusts), and was at the same time given complete control of the 107 miles from Shrewsbury to Holyhead. This project, together with the Menai Suspension Bridge, was completed by 1830, to the great delight of the Irish Members of Parliament, who had agitated for the improvement. Two-thirds (sixty-nine miles) of the Glasgow-Carlisle Road was placed by Parliament under his supervision (1816), and his achievement in effecting his commission there is considered

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32 See above, Chapter IX.

by Smiles to have resulted in a road which had probably no equal in any part of the kingdom.[33] Telford also on two occasions surveyed the Great North Road from London to Edinburgh, but just before commencing its construction (which included shortening the road by rerouting it from Morpeth by Wooler and Coldstream to Edinburgh) the railroad mania diverted attention from roads and the project was not undertaken at that time.[34]

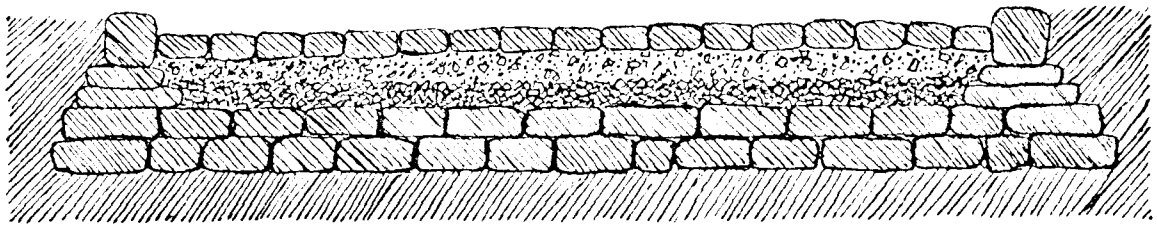
Thus did both McAdam and Telford contribute greatly to the improvement of transportation and communication in Great Britain. Born in the lowlands of Scotland in 1756 and 1757 respectively, McAdam and Telford lived long and busy lives and died within two years of each other. Telford was knighted by a grateful government, and McAdam refused the knighthood which was later given to his son James.[35] Both men were ambitious and highly successful, each contributing in his own way to the amazing development of early nineteenth-century Great Britain. Each is comparatively unknown today, for Watt and Stephenson have captured the popular imagination of the mechanically-minded twentieth century.

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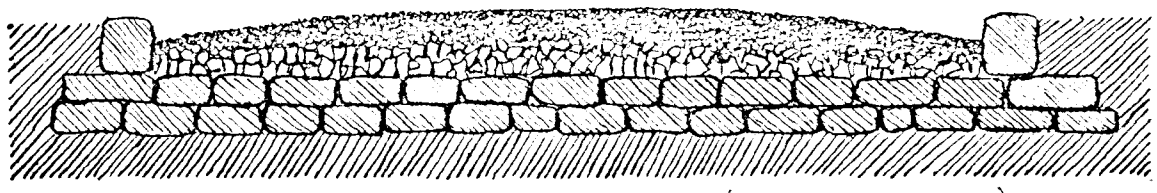
33 Samuel Smiles, "Life of Thomas Telford," in Lives of the Engineers (London, 1861), II, p. 429.

34 Ibid., pp. 432-433, and Jackman, op. cit., I, p. 271.

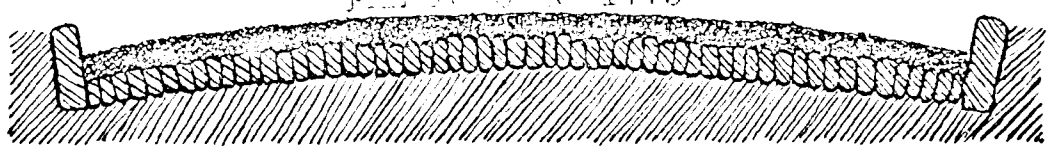
35 See below, p. 305.



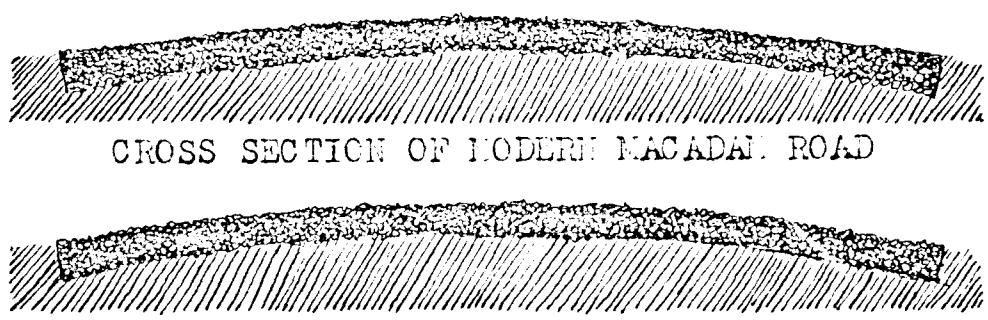
CROSS SECTION OF ROMAN ROAD



CROSS SECTION OF FRENCH ROAD (ROMAN METHOD)
PREVIOUS TO 1775

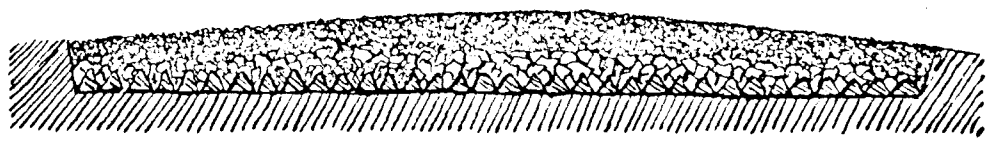


CROSS SECTION OF TRESAGUET ROAD, 1775



CROSS SECTION OF MODERN MACADAM ROAD

CROSS SECTION OF ORIGINAL MACADAM ROAD, 1816



CROSS SECTION OF TELFORD ROAD, 1820

Who was the greater, McAdam or Telford? -- It matters little, for while the one bequeathed his name to his mother tongue and became the symbol of progress in his generation, the other made numerous contributions to the welfare of his country and was granted a final resting place in the national shrine.

Other than McAdam and Telford, there seem to have been few surveyors or highway engineers of note in Great Britain during the first half of the nineteenth century. There were, however, a few writers who offered suggestions for various improvements in highway transportation. James Paterson, a Montrose surveyor, published a little volume on roadbuilding and the efficacy of broad wheels as a means of preserving highway surfaces.[36] Thomas Fall, a disciple and friend of McAdam, in 1827 published a handbook for surveyors, which in almost every detail represented the views of McAdam. Organized and written in a style better than ever attained by McAdam, this work was designed to popularize a slightly revised and improved McAdam system.[37]

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36 A Practical Treatise on the Making and Upholding of Public Roads... (Montrose, 1819).

37 The Surveyor's Guide; or Every Man His Own Roadmaker... (Retford, 1827).

Sir Henry Brooke Parnell (later Lord Congleton), the Irish Member of Parliament who sponsored Telford's work on the Holyhead Road and who was an ardent advocate of turnpike administrative reform, in 1833 presented to the public a splendid little volume of observations and recommendations about turnpike roads.[38] Like Parnell, William Pagan was an interested amateur who wrote on roads. His suggestion was that tolls and statute labor assessments could be eliminated by levying an annual rate on horses.[39]

Of interest also are several of the pamphlets published by other contemporaries of McAdam. A. H. Chambers in 1820 set forth his views on road construction, including a novel plan for the use of "vitrified clay" in forming road surfaces and drains when cheaper materials were unavailable.[40] In 1824 the same author in an eight-page booklet described a new patented mode of cementing paving stones after placing them with the larger sides "downward."[41] William Deykes in 1824 likewise

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38 Treatise on Roads (London, 1833).

39 Road Reform (Edinburgh, 1845). Pagan's principle has been adopted widely in the twentieth century. All road-using vehicles in the western world are required to pay an annual licensing fee -- in Great Britain it is even levied according to rated horsepower.

40 Observations on the Formation, State and Condition of the Turnpike Roads and other highways... (London, 1820), Tracts, 8vo., IV, No. 8 (Library of Institute of Civil Engineers).

41 Description of Mr. Chamber's New Patent System of

briefly described a new principle of paving streets,[42] and ten years later Alexander Gordon opposed the "edge rail-way," while expressing great optimism concerning the use of steam carriages on turnpike roads.[43] A "Mr. Stevenson, Civil Engineer" of Scotland, urged the construction of "stone tracks" on macadamized roads of a steep or much-frequented nature; by this means, he reasoned, horses can secure traction on the metaled surface between the tracks, yet the smoother paved surface reduces wheel traction and proves more durable.[44]

Most of these writers referred frequently to McAdam, as if by so doing to secure his imprimatur. Several professed to favor his system for the open highways, but said a pavement was less dusty (and muddy) and more durable (yet noisier) in the cities. As late as 1849 one J. Pigott Smith, a Birmingham city

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Constructing New and Repairing the Old Carriageways (London, 1824), ibid., No. 4.

42 Considerations on the Defective State of the Pavement of the Metropolis (London, 1824), ibid., no. 9.

43 The Fitness of Turnpike Roads and Highways..., ibid., no. 5. James McAdam was likewise seriously hopeful that steam could successfully be applied to road-carriages. Many efforts had been made in this direction, of course, by ingenious men like William Murdoch, Trevithick and Vivian, Goldsworthy Gurney, and Walter Hancock. On this subject the best summary is found in Jackman, op. cit., I, pp. 328-335.

44 Plan for a Smooth and Durable City Road, n. d., Tracts, 4to., IV, no. 11 (Library of Institute of Civil Engineers).

surveyor, told the Mechanical Section of the British Association that his long experience conclusively demonstrated that a macadamized city street, if "properly constructed and managed, and well water-cleansed and watered," was most satisfactory.[45]

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Other than Telford, however, of McAdam's friends and rivals in the profession only James Paterson merits special attention here. Paterson was surveyor to several trusts in the neighborhood of Montrose, Forfarshire, having moved to that city from Edinburgh in 1816. Apparently he had also served for a time under Telford in various projects connected with the Parliamentary Committee for Highland Roads and Bridges. In 1819 he published his views on roads, their construction and management, together with an essay on the utility of broad wheels.[46]

From his first acquaintance with McAdam, Paterson resented the claims his fellow Scot made to originality and achievement, and indeed, seemed jealous of his prominence. Most of what is

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45 On the Superiority of Macadamized Roads for the Streets of a Large Town (Birmingham, 1849), ibid., LXXXVIII.

46 A Practical Treatise on the Making and Upholding of Public Roads with a few Remarks on Forming Approaches to Gentlemen's Houses: and a Dissertation on the Utility of Broad Wheels and Other Improvements (Montrose, 1819).

known about this man, and all that is known of his lonely crusade against McAdam, is derived from four lengthy letters which he printed and presumably circulated among the addressees and the general public in 1822, 1824, 1825, and 1827. There seems to be no record of any reply McAdam may have made to Paterson's unrestrained charges, nor is there any indication that he ever defended himself, even before his personal friends. His books, his parliamentary testimony, his surviving letters, all are strangely silent on the subject. This quiet submission to such violent abuse is so incongruous with the character of McAdam that one wonders not if he replied in kind, but why none of his replies seem to be extant.

Paterson's first letter, with addenda, comprises eighty-seven printed, octavo pages, and was published by seven of the leading printers in Great Britain, including Constable of Edinburgh and Longman of London.[47] The second letter, an open letter to Sir Thomas Baring, was an attack upon Baring and his Select Committee of 1823 for reporting favorably on McAdam's

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47 "A Series of Letters and Communications Addressed to the Select Committee of the House of Commons, On the Highways of the Kingdom, containing an Inquiry into the Nature and Excellencies of what is called 'Mr. McAdam's System of Road-making;'..," Montrose, 1822. This is actually only one long letter, written in July 1822, with numerous addenda (British Museum 1475.a.14).

petition for compensation.[48] The third was directed to the Members of Parliament who in April 1825 were debating the government-sponsored proposal to give McAdam a final grant of £2,000.[49] And the fourth and final letter is labeled a "(Circular) for Distribution Amongst the Honourable Commissioners of the Metropolis Roads."[50]

Each of these amazing letters, addressed to Parliamentarians and printed for general distribution, pertained directly to some particular project about to be undertaken by McAdam or to some honor about to be bestowed on him. In 1822 Paterson wrote bitterly concerning the two grants totaling £4,000 which had been made to McAdam, and sought to discourage the prospects for a third sum; in 1824 Paterson lamented the favorable recommendation of the 1823 Select Committee regarding another grant to McAdam; in 1825 he sought to dissuade the

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48 "To Sir Thomas Baring, M. P., and late Chairman of the Select Committee of the House of Commons, to Inquire into the Claims of Mr. M'Adam," Montrose, 30 November 1824. A copy of this letter, which is inscribed "To Thomas Telford by his most obedt Servt -- The Author," is in the Library of the Institute of Civil Engineers, London (Tracts, 8vo., IV, no. 6). This letter, together with copies of those of 1825 and 1827, were undoubtedly included in Telford's private library, which he presented to the Institute before his death.

49 Tracts, 4to., IV, no. 9 (Library of the Institute of Civil Engineers, London).

50 Ibid., 8vo., IV, no. 12.

Commons from voting McAdam further compensation; and in February 1827 he accused the House of Commons Committee on Metropolis Turnpike Roads, which had just organized and appointed James McAdam their first general surveyor, of failing to give adequate attention to his application for the position.

More amazing than Paterson's accusations, however, is the intemperance of his language, even when addressing Parliamentarians. Without inhibition he railed at McAdam in violent terms, and by insinuation charged Sir Thomas Baring and various elements in Parliament with partiality and shameless favoritism. He accused McAdam of unashamedly plagiarizing the methodologies of William Lester, Benjamin Wingrove, and others, including (of course) his own. McAdam's claims to have discovered principles "hitherto never made known," he fumed, are no less than "humbug" and "quackery." In 1822 he expressed astonishment that McAdam's book had gone through three editions in one year (1820), and dismissed it contemptuously as juvenile in approach and illogical in method. His own work, in any event (he argued), had been published in 1819, and thus possessed priority as well as superiority. Yet in the very same letter, as he drew near the conclusion (page 74), he was forced to apologize for making a claim to prior publication, for he had since learned that the first edition of McAdam's Remarks on the Present System of

Roadmaking had been issued in 1816. This admission, grudgingly made in a footnote, was accompanied by the reassertion that he had never heard of McAdam before 1820.

In 1824 Paterson claimed he had observed most of McAdam's system -- although not associated with the name McAdam -- for twenty-five years. In his letter of 1825 he was especially eloquent on this point: "Is it in breaking the materials smaller than has been too generally practiced?" -- No! "Is it in lifting an old road, and breaking and relaying the materials?" -- No! "Is it in lifting street causeway, and substituting in lieu thereof, small broken materials?" -- No! "Is it in draining a road...?" -- No! "But in short, -- is it invention of any description whatever, that can be named, for which he claims remuneration?" And again he thundered "No!"

Paterson also scoffed at McAdam's claims to superiority in achievement and method. Yet he admitted that McAdam had done "some good" by his perseverance in advocating these "plagiarized" procedures, and in the initiation of good management. McAdam's views, however, on forming, draining, and preparing roads are most defective, contended Paterson; the six-ounce maximum road metal McAdam recommends is too large -- the two and one-half inch ring is much more suitable for determining

maximum size; and McAdam's methods of drainage are inadequate. Thus did Paterson fume. But as early as 1822 he proudly declared,

> Hitherto I have kept my temper, while my animadversions were chiefly confined to his arrogance and assuming behaviour; but on this subject [broad wheels, whose use Paterson advocated and McAdam deprecated] I confess I would feel difficulty in restraining my indignation against the man.[51]

By 1824 Paterson was declaring that to reward McAdam by a further grant of public funds "would be rewarding quackery, to the reproach of science." And how McAdam utilizes the press, he continued: "What do you think, Sir [Thomas Baring], of all this puffing [of McAdam]?... Puffs, artificially contrived, were, and still continue to be inserted in the London and Provincial Journals,..." Yet this amazing man concluded this letter against McAdam's "bombast" and "glaring falsehood" with these words:

> I bear no ill-will against Mr. M'Adam. I neither grudge him the money, if he deserves it, nor have I any expectations for myself in thus opposing the grant to him. Neither can I charge myself with prejudice in forming the unfavourable opinion that I entertain of him. On the contrary it will be seen, from my publication, with what pains and anxiety I endeavoured to profit by his advice and instructions. And, finally, it has only been after a long and fruitless endeavour to obtain the knowledge of his said 'scientific principles which have hitherto never been thought of,' that I am forced at last to pronounce him a quack.[52]

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51 A Series of Letters and Communications, 1822, p. 51.
52 Letter to Sir Thomas Baring, 1824, pp. 18-19.

Such was the attack of James Paterson, Surveyor of Montrose. How much damage he did to McAdam can hardly be determined conclusively with the evidence at hand; but it seems to have been negligible. Each of the Parliamentary Committees reported favorably on his work and merit; Parliament by a three-to-one margin in 1825 voted him £2,000; his son James received the appointment to the new Metropolis Turnpike Trust in 1826-1827 -- the highest road engineering position in the kingdom; and the father was offered a knighthood shortly thereafter. This evidence, while negative, appears conclusive.

Paterson's status as a great engineer is altogether questionable, and his jealous attacks on McAdam render his character quite unattractive. Had Telford or Rennie attacked McAdam half so bitterly, McAdam's reputation surely would have suffered. But Paterson's venom seems to have been employed in vain.

Thus McAdam and Telford stand without peers as creators of the great Coaching Era in Great Britain.

CHAPTER XIII

PERTHSHIRE TRUSTS

The last decade of McAdam's life, although embracing the years seventy to eighty, seem to have passed at as rapid a pace as the preceding ten. Like Franklin and Gladstone, whose life spans he overlapped, he seemed determined to defy the laws of nature and escape senility. It has been noted that as he approached seventy he engaged in a prolonged controversy with the Bristol Trust, from which he emerged victorious in December 1825 when he secured a new appointment. Simultaneously, while in the midst of the Bristol struggle he surveyed a line for the London and Bristol Railroad, planned an accompanying turnpike, testified before a parliamentary select committee urging the consolidation of metropolitan roads, and worked with other leading members of the Bristol Chamber of Commerce to secure parliamentary approval of a Town Dues Bill. Early the same year (February 1825) he suffered the loss of his wife.

Later in his seventieth year McAdam was once more busy with Bristol and other trusts, and yet found time to serve in the Midlands providing public works for the relief of the unemployed. He was active again with the Chamber of Commerce. And undoubtedly he was occupied with other projects which are

unknown today.

Early in 1827 (or possibly late in 1826), McAdam began to think about remarriage. The first intimation evident today is found in a letter David Ramsay wrote to his wife. Helen on 27 March 1827. In a postscript he hurriedly confirmed a rumor his wife had undoubtedly heard: "It is quite true that your uncle is going to be married."[1] Two days later Ramsay noted, "The Lady your uncle is going to marry is a Miss Delancey, with a considerable fortune. Her age is thirty-eight.[2] The chief cause of delay is making suitable provision for the children. Her fortune is in funds." In his next report (10 April) Ramsay said McAdam's family was much annoyed by this courtship. "James," related he, "seems to think he /his father/ is in his dotage. He says his disposition is changed, and instead of being conscious /sic/ as he used to be, he is quite the reverse." Twelve days later he reported that attempts were being made to prevent a marriage, that "The old gentleman I understand would now consent to its not taking place, but the Lady may not consent." Ramsay was consulted by a London solicitor as to the

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1 27 March 1827, Shaw Kennedy MSS. (Mr. H. Shaw Kennedy, London).

2 Her epitaph in the Broxbourne Parish Church, Hertfordshire, gives her date of birth as 17 September 1786. This would have made her forty -- not thirty-eight! -- in the spring of 1827.

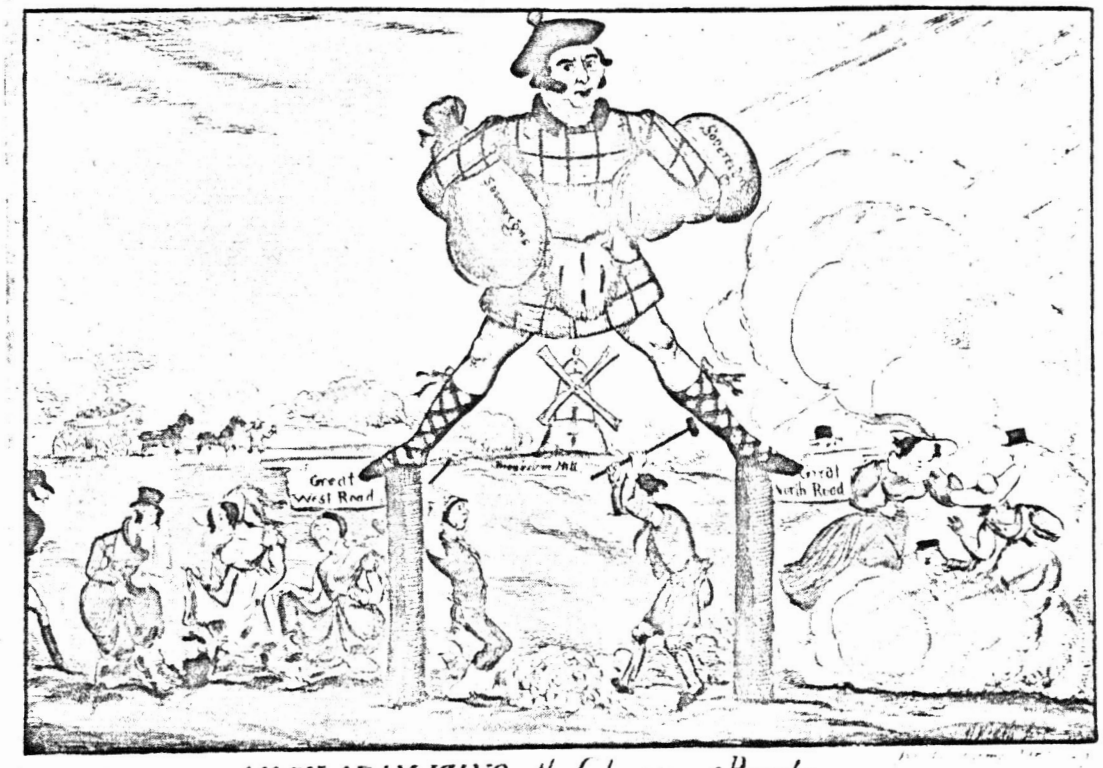
the settlements to be made on McAdam's daughters, who anticipated, he commented, being thrown out of doors. Throughout May the Ramsays and doubtlessly the other members of the family were kept in suspense, but finally on 7 June Ramsay wrote with apparent relief, "Your uncles [sic] marriage is all off."[3]

But McAdam's marriage was by no means "all off," for in the Marriage Register of the Parish of Broxbourne it is recorded that on 10 December John Loudon McAdam and Anne Charlotte DeLancey were married.[4] The bride was forty-one, the groom seventy-one. Interestingly enough, the new Mrs. McAdam was of American origin, a relative of the wealthy and powerful American Loyalists, James and Oliver De Lancey. When but a young man in his twenties in New York, McAdam, it has been said, served in Oliver De Lancey's Brigade; and he had returned to Great Britain in the same general exodus with the DeLanceys. Consequently, Anne Charlotte DeLancey had been born in England. She was the eldest daughter of John Peter DeLancey. One of her brothers was the Rt. Rev. Dr. John Peter DeLancey, and a sister

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3 All these letters, David Ramsay to Helen Ramsay, are in the Shaw Kennedy MSS. They are dated 29 March, 10, 22, and 25 April, 3, 4, and 29 May, and 1 and 7 June. Subsequent surviving letters in this collection (written in September the same year) do not mention McAdam.

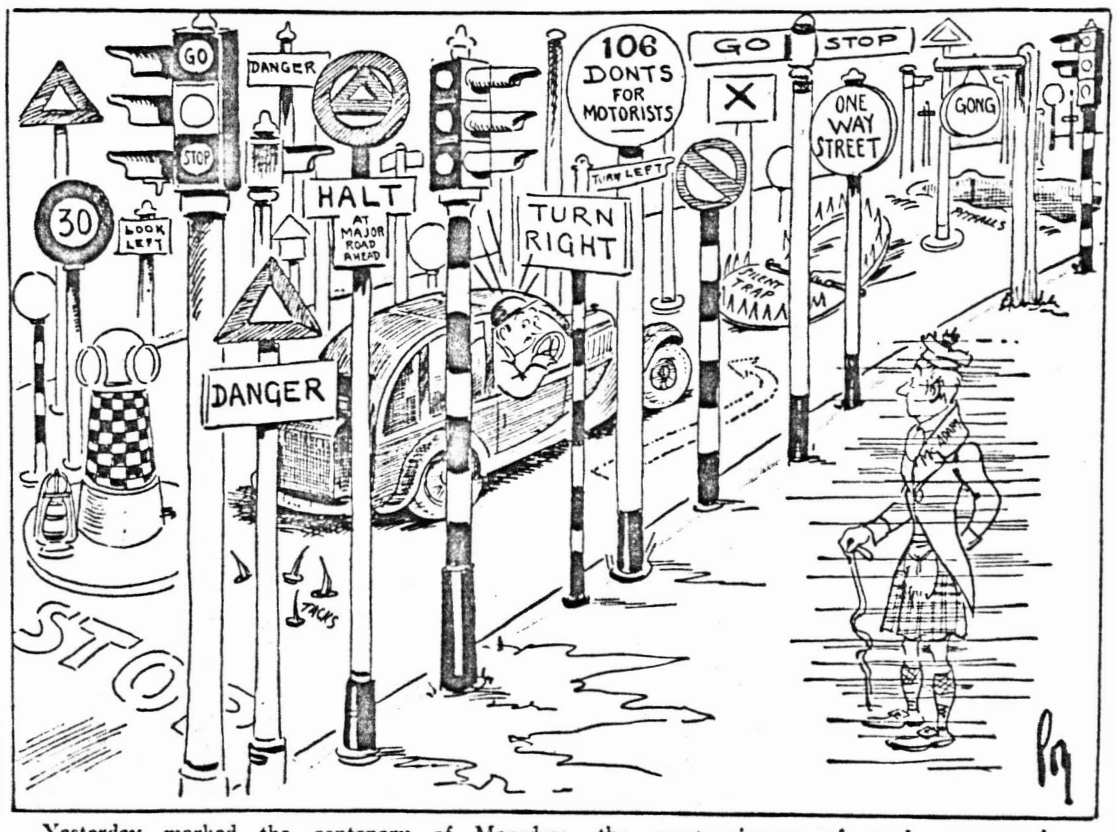
4 Marriage Register, 1813-1837, County Archives, Hertford.



MOCK-ADAM-IZING.—the Colossus of Roads.

CARICATURE FROM A COLOURED PRINT IN THE BRITISH MUSEUM, 1827

A HUNDRED YEARS OF PROGRESS— *By POY*



Yesterday marked the centenary of Macadam, the great pioneer of road construction

married James Fenimore Cooper.[5]

Intermittently since 1817 McAdam's attention had been directed to the British Tar Company and his lease of the Kaimes' coal. Though little is known about his Ayrshire activities during this interim (1818-1827), it is apparent that he was occasionally concerned with this attachment. In 1822, for example, David Ramsay recorded that he "found Pearson from Muirkirk in the /Salopian?/ Coffeeroom" with McAdam, and added, "I fancy Pearson is here making some arrangements abt /sic/ the Muirkirk business."[6]

In 1826 or 1827, as McAdam's thirty-eight-year lease of the Kaimes' coal expired, he terminated a relationship of forty-five years in abandoning the manufacture of tar at Muirkirk. After sparring again with James Ewing and the other Muirkirk Iron Company partners (who, having been unable to sell their interest, still managed the iron works), McAdam won the right to dissolve the tar company and, at the same time, secure a sixty-one-year extension to his Kaimes' lease. John Pearson, acting for McAdam, obtained a favorable arrangement with the

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5 New York Daily Times, 24 June 1852, obituary notice; also see McAdam's obituary notice, Dumfries and Galloway Courier, 7 December 1836.

6 Ramsay to his wife Helen, 10 May 1822, Shaw Kennedy MSS. It is not known to which of the Pearsons he referred -- Luke, George, or John. All three were working for McAdam at the time.

iron company, including a coal royalty of threepence per ton mined in the Kaimes' property, with the right to dictate the proper mining operations. For his part, McAdam was obligated only to pay Mackenzie an annual rent of fifty pounds.[7] In 1830 Ewing was again seeking to sell the iron works, this time at a price of £25,000. His best prospective customers, it appeared (17 March), were the Duke of Portland and John Loudon McAdam. Despite Ewing's claim that his profits had averaged £6,532 since 1818, neither McAdam nor Portland would buy.[8] The Muirkirk Iron Company, in fact, did not sell until 1863.[9]

Good roads in Scotland can definitely be dated with the early years of the nineteenth century when Telford and McAdam

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7 See various papers in the Muirkirk Iron Company MSS. (Bairds and Dalmellington, Ltd., Glasgow); e. g., "Answers for Charles Selkrig as trustee for James A. Stewart Mackenzie to the Requisition of John Loudon McAdam, Esq., 30 January 1827; "Schedule of Requisn and Intim [sic] -- John L. MacAdam Esquire to the Muirkirk Iron Co., 30 April 1829;" (copy) "Summons of Removing -- Charles Selkrig accountant in Edinburgh and James Stewart Mackenzie Esquire Apt. [sic] John Loudon MacAdam" (1827); and "Extract from the Scroll of Renewal of Mr. Macadams Lease of Kaims Coal etc, copied 21 November 1827."

8 (Copy) James Ewing to an advisor of the Duke of Portland, 17 March 1830, Muirkirk Iron Company MSS.

9 Dugald Baird to Mrs. Roy Pember-Devereux, MS. in the possession of Mr. David McAdam Eccles, M. P., Westminister.

undertook their reconstruction and repair. Telford, as has been noted, performed a tremendous road construction feat in the Highlands, and rebuilt a section of the much-frequented Glasgow-Carlisle Road.[10] Through his personal influence, and through such disciples as Joseph Mitchell, his methods were broadcast widely. McAdam, likewise, was very active in Edinburghshire,[11] Perthshire, and perhaps elsewhere; while through his assistant John McConnell his "system" was made known throughout many other areas of Scotland.

Perthshire is a large county in the heart of Scotland. Constituting an area of some 2,538 square miles, the county is from forty-six to fifty-eight miles in its north-south dimensions, and forty-eight to sixty-eight miles east-west. While rugged and mountainous in the north, Perthshire possesses a gently-undulating terrain in the south, and consequently is proud of its designation as the "Gateway to the Highlands." With a population of 133,923 in 1825,[12] Perthshire at the time ranked with Oxfordshire, Berkshire, Buckinghamshire, and Hertfordshire. The county is drained by numerous small streams and

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10 See above, Chapter XII, for a summary of the highway engineering activities of Telford.

11 See above, Chapter X.

12 A Guide to the City of Perth, 4th ed. (Perth, 1825), p. 43.

rivers, most of them fast-flowing and difficult to ford. Road-building is thus difficult: many bridges are required, which, while not of great length, demand substantial construction to withstand flood waters; and the soil of the area, being of a sticky clay for the most part, renders the construction of macadamized roads an engaging problem for the highway engineer.

The Royal Burgh of Perth in the first quarter of the nineteenth century (as indeed today) was a thriving commercial city. In addition to a prosperous water-borne trade provided by the river Tay, Perth was the focal point of overland transportation in all the east of Scotland north of Edinburgh. No less than seven turnpike roads converged on Perth.[13] One of these was the Great North Road, which, after passing through Edinburgh and crossing the Forth at Queensferry, wandered northward through Kinross to Perth, and thence in a northeasterly direction to Aberdeen.[14]

A vigorous coaching business kept up a lively intercourse between Perth and the neighboring towns. A "Caledonian Coach" made two trips weekly to Inverness; the "Edinburgh and Aberdeen Mail" passed through Perth daily at about 3:30 P. M. northbound,

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13 The last of the roads to be made turnpike was the Perth to Blairgowrie Road.

14 See Map of Perthshire on p. 438.

and at 4:30 A. M. southbound; a "Union Coach" made a round trip daily to Edinburgh from the George Inn (Perth); the "Telegraph" departed the same inn daily at 6:30 A. M. bound for Aberdeen; while the "Perth and Dundee Telegraph" kept daily communication between the two cities on a four-hour schedule (for a journey of twenty-two miles in one direction).[15]

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John Loudon McAdam was closely associated with Perthshire and its district turnpike trusts from 1824 until the end of his life. In a courteous letter Thomas Duncan, the Clerk and Treasurer of the Carse of Gowrie Turnpike Trust, on 13 August 1824 transmitted a long memorial (2,500 words) from the Carse trustees to McAdam.[16] In early January of the same year the trustees had decided upon this appeal in view of the improvements

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15 Morison's Perth and Perthshire Register for 1815 (Perth, 1815), pp. 60-61. See also Guide to Perth, op. cit., pp. 8, 20.

16 McAdam's association with the Carse of Gowrie Trust proved so beneficial to the trust that its officers were kept busy answering inquiries about the McAdam system. To obviate the necessity of such frequent correspondence and conversation, and to give the public the benefit of McAdam's views, the trust in 1830 published its "Memorial" (3 July 1824), together with seventeen letters which passed between McAdam and the trust from August 1824 to April 1825. Included also in the publication are McAdam's first two annual reports to the trust, and a long extract from the Perthshire Courier of 29 January 1829. All this is published as Correspondence betwixt the Trustees on the

effected elsewhere in Scotland by the partial adoption of the McAdam method of road repair and supervision. A committee, consisting of the Right Honorable Francis Lord Gray, George Paterson of Castle Huntley, and James Hay of Seggieden, had been appointed to prepare a suitable address to McAdam.[17]

Following a brief review of the history of the road and trust (created by Parliament in 1788), the trustees in their memorial described the Carse road to McAdam:

> But the situation of the Carse Turnpike Road, differs from any other in the county of Perth. The other roads being unconnected with, and not affected by, any navigable River. Whereas the Carse Road runs, in its whole extent, almost parallel to the River Tay, which is on the South side of the Road, and is navigable along the whole line. The Road itself is not distant two miles from the River at any one spot; and at other portions it runs along the very banks, and within a few yards of the water. On the North side of the Road, the Braes of the Carse, consisting of a continuation of hills, and high grounds, run parallel to the Road, not more than a mile distant from it, and the district of country, beyond these hills, not being possessed of any considerable Market Towns, little intercourse takes place in that direction from or to the Carse.
>
> At the West end of the Turnpike Road, the City of Perth is situated; and not far from the Eastern extremity is the commercial City and seaport of Dundee. On the banks of the River are several harbours, or ports, not far distant from the line of Road;...
>
> The extent of the principal line of road is 18 miles in length. The Branch leading to Inchyra is a quarter of a mile,

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Carse of Gowrie Turnpike Road, and J. L. Macadam, Esq... (Perth, 1830).

17 Carse of Gowrie Minute Book, 1811-1830, entry for 13 January 1824. All original Perthshire Turnpike Trust records hereinafter cited are deposited in the archives of the county in Perth, and are in the custody of the County Clerk. More than

-- that leading to Errol is about three miles, -- and that to Polgavie about two miles in length. The distance betwixt Perth and Dundee is altogether 22 miles; but the remaining 4 miles are in the County of Forfar, and under a separate Trust, with which the Memorialists have no concern.[18]

The Carse trustees had for many years been forced to rely on inefficient contractors for the upkeep of their road. As a consequence it had deteriorated year by year. This fact, combined with the increasing competition of water-borne traffic, rendered their situation desperate. In the hope of securing a remedy, therefore, for the ills they suffered, and inasmuch as the current contract was expiring at Martinmas 1825, they conceived it

> a duty they owe to the Public, to lay a case before Mr. Macadam, and to solicit his advice, as to the future repair and management of the Road -- his assistance under similar circumstances having been so very efficient in other districts of the kingdom.[19]

The trustees then outlined their technical and financial practices. Sources and types of stone were enumerated in detail. Results of thirty-six "pittings" (samplings of the road strata) were described, indicating thicknesses of from three to

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fifty relevant manuscript volumes, all in an excellent state of preservation, have been carefully studied in connection with the present study.

18 Correspondence, op. cit., pp. 2-3.

19 Ibid., p. 4.

ten inches and a variety of stone sizes. Gross revenue of £2,000 was claimed, with £400 annually paid as interest on the bonded debt of £10,000. In an appendix to their memorial the trustees enclosed a set of specifications which they had submitted to contractors seeking bids. Two bids, asking respectively £727 and £695 per mile for remaking the road, were submitted. The trustees, horrified by the wretched state of their road and the high estimates for repair, besought the aid of McAdam. Indeed, their memorial concluded with this plea: "...they earnestly beg that he /McAdam/ will, at his earliest convenience" give his opinion and instructions for the improvement and repair of their road!

This urgent petition, accompanied by six specimens of local stone, reached McAdam at Penrith, Cumberland, from whence he directed a lengthy reply on 2 September. His remarks were arranged topically.

1. Contracts, said he, when made by a trust to cover general road repair, have two certain results -- large fees and poor roads. "The Contract creates an interest in the Contractor in direct opposition to that of the Public, to which is superadded, the entire ignorance of the Contractor...." When all technical procedures are supervised by one of the McAdam family,

employed on a stipulated salary, all jobs are done piecework by small gangs of men, and great efficiency and economy result.

2. The term "Metal Box," found in the specifications, signifies a trench filled with stones: such a road retains water, and is never satisfactory.

3. "The practice, formerly universal, of laying large stones as a bottoming to a road, is as expensive as it is mischievous...." The natural soil is quite adequate a foundation.

4. On a well-drained road, six or eight inches of metal is sufficient.

5. Although the width of a road must be determined by its use, in Perthshire sixteen feet would seem sufficient.

6. It is difficult, even impossible, to phrase a job specification for roadmaking in a satisfactory manner.

7. "The sum demanded by the offerers... is a convincing proof that they either know nothing of the system of roadmaking which I have recommended, or that they were attempting to take undue advantage of their knowledge...."[20]

This blunt reply, so similar in tone and content to his report to the Edinburgh Trust in 1819, was followed the same day by another letter from McAdam suggesting that the only suitable

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20 Ibid., Letter II, pp. 10-12.

course of action open to the trustees was to secure a competent general surveyor who could direct in detail a subordinate. In a careful analysis he estimated a complete "lifting" and remaking of the Carse road could be accomplished for £308 per mile. Future upkeep, he thought, with skillful and honest superintendence, could be had for fifteen pounds per mile per annum. A one-ounce road metal would be most effective.[21]

Thomas Duncan and McAdam carried on a lively correspondence for more than nine months, McAdam's address changing with almost every letter -- Penrith and Cockermouth in Cumberland, Salisbury, Reading, Bristol, and London. The trust finally decided it needed a sub-surveyor trained by McAdam to supervise its road. McAdam expressed a desire to be of service, but said he doubted if he could meet their requirement, for he and his sons were employing about one hundred sub-surveyors, and could have used a number of others if competent men could have been obtained. But in the end he sent Stephen French, his best Bristol sub-surveyor, on condition that French's Bristol wage (two guineas per week) be not reduced.

The Carse trustees then decided they were very anxious to secure McAdam's personal superintendence, and he finally agreed.

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21 Ibid., Letter III, pp. 13-16.

He attached many conditions, however, to his acceptance. He wrote,

My opinion is that it would be possible for some one of us, to visit you, four times a year, for the purpose of Auditing the Accounts of the Sub-Surveyor, inspecting his operations, and giving him directions how to proceed until the next inspection.

This partial Superintendence is not exactly what I could wish for your service, but I think the distance makes more quite impossible for us.

An arrangement of this sort would oblige us to send one of our best, and most trustworthy, Sub-Surveyors, and upon the first appearance of neglect of duty, or other suspicion of offense, to change him on the instant.

The distance will create considerable expense, as well as loss of time in travelling, I cannot, therefore, see the possibility of your having this assistance under Two Hundred and Fifty Pounds a-year, which is understood to cover the Salary of the Sub-Surveyor, and travelling charges four times a-year to Perth.

I will send this letter to Penrith to my colleague, John M'Connell, Esq., for his opinion and approbation, or otherwise as he thinks best, because upon him the duty will principally fall, he may add to it his consent, or dissent, as he shall judge expedient or possible.

Should we send a Sub-Surveyor to you, under any arrangement, I must stipulate for a very distinct understanding, recorded on your Minutes, that there shall be no interference of individual Trustees with our servant, that he shall attend to no order except what is made at a Meeting of Trustees, regularly assembled, entered on the Minutes, and communicated in writing by the Clerk, so as the Sub-Surveyor may report a copy to us.

No interference is to take place should we consider it expedient, for the public service, to withdraw or change him.

The Trustees must also positively engage not to employ any of our Sub-Surveyors whom we may send to Scotland.

I mention the last stipulation, because much public mischief has arisen from Sub-Surveyors being encouraged to act contrary to our orders and their duty to the public, from being encouraged by individual Trustees, that they would be taken into the service of the Trust, without having the control of a

master, which they are all solicitous to realize.

I request the Trustees to believe, that, in proposing this kind of arrangement, I am actuated by a sincere desire to serve them, as it must be evident that it cannot be a profitable operation to us.[22]

These rigid terms imposed by McAdam in 1825 indicate to some degree the eminence he had attained in the surveying field. Indeed, he and his sons, who by that date had been engaged in almost every shire in England and by many in Wales and Scotland, and who employed one hundred sub-surveyors, had dignified the occupation to the point where it was for them in fact an established profession. In fact, when the trust at one point balked at McAdam's insistence on a five-year engagement, he abruptly terminated negotiations, which he consented to reopen only when Lord Gray, who was chairman of the trust and convener of the committee dealing with him, personally addressed him and conceded the point. McAdam also secured the written stipulation that individual trustees would not "meddle" with the sub-surveyor, nor would any effort be made to induce him to leave the employment of McAdam for that of the trust. Specifically, for £250 per annum he contracted to provide an efficient sub-surveyor to inaugurate his "system" on the Carse Road, and he agreed that he or an agent would make a quarterly inspection of

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22 McAdam to Duncan, 11 January 1825, Letter X, op. cit., pp. 22-23.

the twenty-four miles of turnpike road.

To eliminate the possibility of any future misunderstanding with McAdam, the Carse trustees on 18 April determined to draw up "mutual articles of agreement" with him. This was done, and a permanent standing committee of five leading trustees designated to deal with McAdam and his sub-surveyor.[23]

The Carse trustees met eleven times at "East Halfway House" between 18 April 1824 and 6 September 1826, at which time McAdam submitted his first annual report, revealing that to "lift" and remake ten and one-half miles of the road had cost £257 per mile -- well below his estimate of £308. He proudly called attention to a "saving" of £529. The minute of the occasion simply records that after his report was made, "the Meeting... expressed their satisfaction at the result as detailed by Mr. McAdam."[24] In his next report (signed by McConnell) McAdam cited a total expenditure for two years of £4,386 in remaking seventeen and one-half miles of the Carse road. This was slightly more than £250 per mile, he said, less than the average

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23 Minutes of 18 April and 4 May 1825, Carse Minute Book, 1811-1830. Forming the committee were Gray (convener), Hay, Paterson, Charles Hunter, and Laurence Craigie.

24 The entry for the day (6 September 1826) in the Minute Book contains a complete transcript of this report, as does Correspondence, op. cit., pp. 35-36; see Appendix G.

for the first year, and represented a total saving of £1,003![25] Reports made in 1828 and 1829 indicate the expenditures were running at about £500 per annum (twenty-one pounds per mile), or six pounds per mile more than his 1824 estimate. In 1828, nonetheless, "the Meeting cordially approved of the Report," and "the thanks of the Meeting were unanimously voted to Mr. McAdam for his careful and useful superintendence of the Road." At this same meeting and by virtue of McAdam's request, McConnell was named joint superintendent of the trust, with the understanding that there need be no increase in emoluments.[26]

In 1829, however, McConnell was forced to defend his request for an extra £300 for additional scraping and metaling. He was asked to prepare a written statement as to the condition of the roads, and "also as to sums on which Mr. McAdam and he would renew their contract for superintendence...."[27] The next day McConnell reported that he and McAdam would inspect the trust six times per annum (instead of the agreed four) for a salary of £190 per annum, inclusive of sub-surveyors' salaries. Engagements with two neighboring trusts, he explained, made

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25 Entry for 11 July 1827 and Correspondence, op. cit., pp. 36-38.

26 Carse Minute Book, 1811-1830, 7 May 1828.

27 Ibid., 1829-1838, 8 December 1829.

this concession possible, and it must be understood that one-quarter of the sub-surveyor's time will be devoted to a neighboring trust. This new arrangement was obviously satisfactory, for on 5 May 1830 the trustees unanimously voted to retain McAdam and McConnell and to grant them £1,200 for a two-year improvement program. Again, on 4 August, when McAdam and McConnell appeared in person, the trust expressed complete confidence in them.

The years 1830 to 1836 were uneventful insofar as McAdam and the Carse of Gowrie Trust were concerned. There were occasional complaints, from McAdam or McConnell about extremely bad weather, from an occasional trustee that the roads were "heavy." There was even some discussion in 1832 over a complaint that the superintending surveyor had placed large stones on the road -- a practice always condemned vigorously by McAdam in times past! -- and on 22 May the trustees ordered the practice ceased "even if an additional expense should be incurred," for, they said, these stones are often a source of danger to travelers. Later permission was granted to use large stones "to prevent the road being tracked provided these be laid in straight lines." Routine business continued to engage the attention of the trust; footpaths were constructed, curbstones placed, numerous wooden road metal depots installed along the

road, and various other improvements effected. There was a suit because of a fatal accident on the road, and the tacksman at Invergowrie Toll Bar was jailed because his remittances were in arrears.

A new Act of Parliament was obtained in 1832, which increased the mileage of the trust by nine miles.[28] For this reason, and possibly others, the cost of maintenance increased from £500 expended annually in 1828 and 1829, to £672 in 1832, £1,018 in 1833, and £1,129 in 1834. Yet the annual reports of McAdam and McConnell seemed to meet with general approbation and formal expressions of confidence by the trust. In November 1835 a proposed Perth and Dundee railroad caused some consternation among the trustees, who envisioned bankruptcy, and directed the clerk "immediately to request Messrs. McAdam and McConnell to make up a full Report as to whether the Funds of the Turnpike Trust would in any ways be injured and the probable extent...." McAdam submitted the required observations on 25 November, and the following 6 January (he was then in his eightieth year) he personally was "heard fully in explanation" of the report.

On 4 May 1836 the trust tendered its joint superintendents

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28 Act 4 William IV, Cap. 82. The Carse of Gowrie Trust's proportionate share of the expense of procuring the bill amounted to £143 (see Minute Book, 1829-1836, entry for 1 May 1830).

a vote of appreciation "for their unwearied and efficient service in regard to the support and improvement of the road." Unfortunately the notation of 4 May is the last in the Minute Book of 1829-1836, and the first entry in the new volume is dated 10 February 1837: thus there is no recorded notice of the death of McAdam, which occurred in November 1836. McConnell continued to give satisfactory service to the Carse Trust at least until 1856,[29] and possibly longer, for he lived until 1883.

Inevitably the success attained by McAdam and McConnell on the Carse of Gowrie Road was heralded throughout the County of Perth. On 29 January 1829 the Perthshire Courier printed a long article detailing McAdam's administrative practices and relating his dealings with the Carse trustees. The editor seemed especially impressed with the fact that McAdam's low estimate of £308 per mile for a thorough improvement of the road had proved too high by fifty pounds per mile in actual performance. This road, continued the Courier,

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29 Carse Minute Book, 1831-1857.

is the finest road in the county and equal to the most improved in Scotland.... With the experience of the Carse road before the public, the other Trusts in the county would do well to consider as to the practicability of availing themselves of Mr. M'Adam's able assistance; and it is needless to add, that, in the event of a joint measure extending over the whole Shire, the personal superintendence of Mr. M'Adam on the spot would be more frequent, and the expense being divided, would be, comparatively speaking, a mere trifle to each trust.

Within three years of the date of this editorial eulogy, McAdam and McConnell were in charge of five of the main turnpike roads leading to Perth, in all embracing 134 miles of important roads. The second of these trusts to engage the service of McAdam (the Carse was the first) was the Perth and Dunkeld District Trust, which was seventh in a listing of the thirty-six districts in the county.[30] Dunkeld, fifteen miles northwest of Perth, is on the main line leading across the Grampians to Inverness.

During the winter of 1828-1829 the Dunkeld trustees consulted Joseph Mitchell, Telford's assistant who was Surveyor of Roads under the Parliamentary Commissioners for the Highlands. On 5 May 1829, however, the Duke of Atholl, who was serving as

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30 This account is based largely on the Minute Book of the trust, covering the years 1811 to 1836. The thirty-six districts in Perthshire, of which twenty-eight were turnpike, are enumerated in the General Meeting Minute Book, 1820-1873.

preses of a general meeting of the trustees, informed the group that he, Sir Alexander Muir Mackenzie, and James Keay of Snaigow had conversed with McAdam in London, and had resolved to request his attention to their road. Accordingly, he continued, James McConnell, McAdam's partner, had inspected the road, and his report was ready for presentation. McConnell's report, dated 28 April, was similar to those he delivered to the Carse of Gowrie and other Perthshire Trusts. He spoke disparagingly of the state of the road, evaluated the finances of the trust (he found £1,200 annually available for the upkeep of the road), and suggested that a four-year program calling for the complete reconstruction of the road be adopted, after which an annual expenditure of £700 (twenty-seven pounds per mile) would be adequate to maintain it satisfactorily.

At the same meeting this report was considered (5 May 1829), the trustees asked McConnell for specific terms on which McAdam would accept the trust, and were informed that McAdam would assume the responsibility for £230 per annum. He would with that sum employ a sub-surveyor at two guineas per week (£109 per annum), and pay his own traveling expenses for four annual inspections. His contract, however, must be for five years. To each of these stipulations the trust agreed and appointed McAdam forthwith.

During the next few years very little but routine business occupied the attention of the Dunkeld trustees. In company with the other trusts of the shire a new Act of Parliament was obtained.[31] In September 1832 McAdam acquired the supervision of the Kinclaven Trust, and by assigning the Dunkeld sub-surveyor to both trusts he was able to reduce that portion of his salary paid by Dunkeld by thirty-four pounds; and again on 11 April 1834 he agreed to a further reduction of forty-six pounds, which left him a gross salary at Dunkeld of £150. In July 1835 McConnell, acting for himself and McAdam, asked for an increase to £800 in the budgetary allowance for repairs, arguing that changing conditions made this necessary. His request was granted at the September meeting. Good will and general satisfaction seemed to pervade all the relationships of this trust, and McConnell, following the death of McAdam in 1836, served the trust at least until 1858. It is interesting to note that his gross salary declined to £142 in 1840, to £135 a year later, and in 1858 was £105.[32] This was possibly due to general economic stress rather than to any dissatisfaction with

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31 Act 4 William IV, Cap. 82.

32 Treasurers Account Book, Dunkeld Trust, 1819-1853. This volume, dated as cited here, actually carried the accounts to 1858.

his work, but there is no evidence which points to either alternative.

-5-

In April 1830 a third important Perthshire trust, controlling the Perth and Crieff Turnpike Road, first considered the advisability of contracting the services of McAdam. As at Dunkeld, Joseph Mitchell was first consulted by the trustees, but McAdam and McConnell were given the post in 1831.

Crieff, described in 1825 as "a thriving little town in a charming country, with two excellent inns,"[33] is located seventeen miles west of Perth. Obviously dissatisfied with the care of their road, the trustees upon motion of Robert Smythe of Methven determined to consider consulting McAdam.[34] During the preceding year McAdam had corresponded with the clerk of the trust and had suggested using the services of the Carse of Gowrie sub-surveyor in supervising ten miles of the Crieff road. Finally negotiations were amicably completed (early 1831) and McConnell examined the road and its finances. Of course he found the road in need of urgent repairs. The average revenue

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33 See A Guide to Perth, op. cit., p. 100.

34 Minute of a meeting at Ochtertyre, 7 April 1830. The narrative of McAdam's relationship with this trust is based on the Perth and Crieff Turnpike Road Minute Book, 1826-1840.

of the trust for three years was reported to be £1,715; the debt of £15,500 was carried at five per cent; and after allowing £100 per annum for contingencies, McConnell estimated the trust could rely on £840 annually for repairs. If the debt could be refunded at four per cent, £155 would be saved each year and the trust enabled to spend £995 annually for repairs. This would allow for needed improvements and routine upkeep of the road (£815), leaving £180 for superintendence.

To discuss these proposals an important meeting of the trust was held in Perth on 20 April 1831. By that date McConnell had reduced his proposal for superintendence to £135. The trust approved his report, agreed to his terms, and set up a four-year plan looking to the complete remaking of the roads at an annual outlay of not more than £800. Mitchell, who as late as 1833 was still discussing improvements with the trustees, was expressly opposed by McConnell, who declared he could execute the improvement better and with less expense.[35] Wherever the agents of Telford and McAdam met in Perthshire there were undertones of conflict, and in this case the clash was open and vehement. In their first annual report as employees of the trust, McAdam and McConnell submitted that they had expended

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35 Ibid., meeting of the trust at Perth, 2 November 1832.

£835, that the road was greatly improved, and that when the four-year program was consummated their original estimate of £450 for annual repairs would be adequate. Now that the work had been organized, they added, the sub-surveyor could divide his time with the Carse of Gowrie Turnpike Trust and his Crieff salary reduced by twenty pounds.

Routine business appears to have occupied the trust until 1841. Unfortunately there is a gap in the minutes from October 1835 to the same month in 1839. There is, therefore, no record of the trust's action or sentiments concerning the death of McAdam in 1836. The last recorded meeting of the trust (14 April 1841) indicates that McConnell was still serving as supervising surveyor and was giving satisfactory service.

-6-

A fourth important Perthshire trust to request the services of McAdam was that charged with the care of the road between Perth and the village of Blairgowrie, located fifteen miles north of the burgh. When asked by the general trust of the county what revisions it wished included in the forthcoming Act of Parliament, this trust on 2 September 1830 determined to secure the provision for a new road between Coupar Angus and

the Blairgowrie Turnpike.[36] Although only six miles from Blairgowrie across the open country, Coupar Angus was at this time twenty-eight miles distant by road, for to reach that village it was necessary to travel all the way to Perth (fifteen miles) and then cover the thirteen miles direct to Coupar Angus. A committee was appointed to take the matter under advisement and to plan the undertaking in advance in the event of parliamentary approval.

At a meeting of the trustees on 10 January 1832 detailed plans were approved, and one Blackadder, a civil engineer of Glammis, was placed in charge of the project. In the meantime, however, Sir Alexander Muir Mackenzie had been authorized to correspond with McAdam on the subject of the proposed new line.[37] There were numerous delays, chiefly regarding subscriptions of the funds, but on 26 March 1833 Blackadder submitted to the committee detailed plans and estimates for the project. On the same occasion it was decided to ask McConnell to report on the proper mode of constructing the road and also on the best means of financing it.

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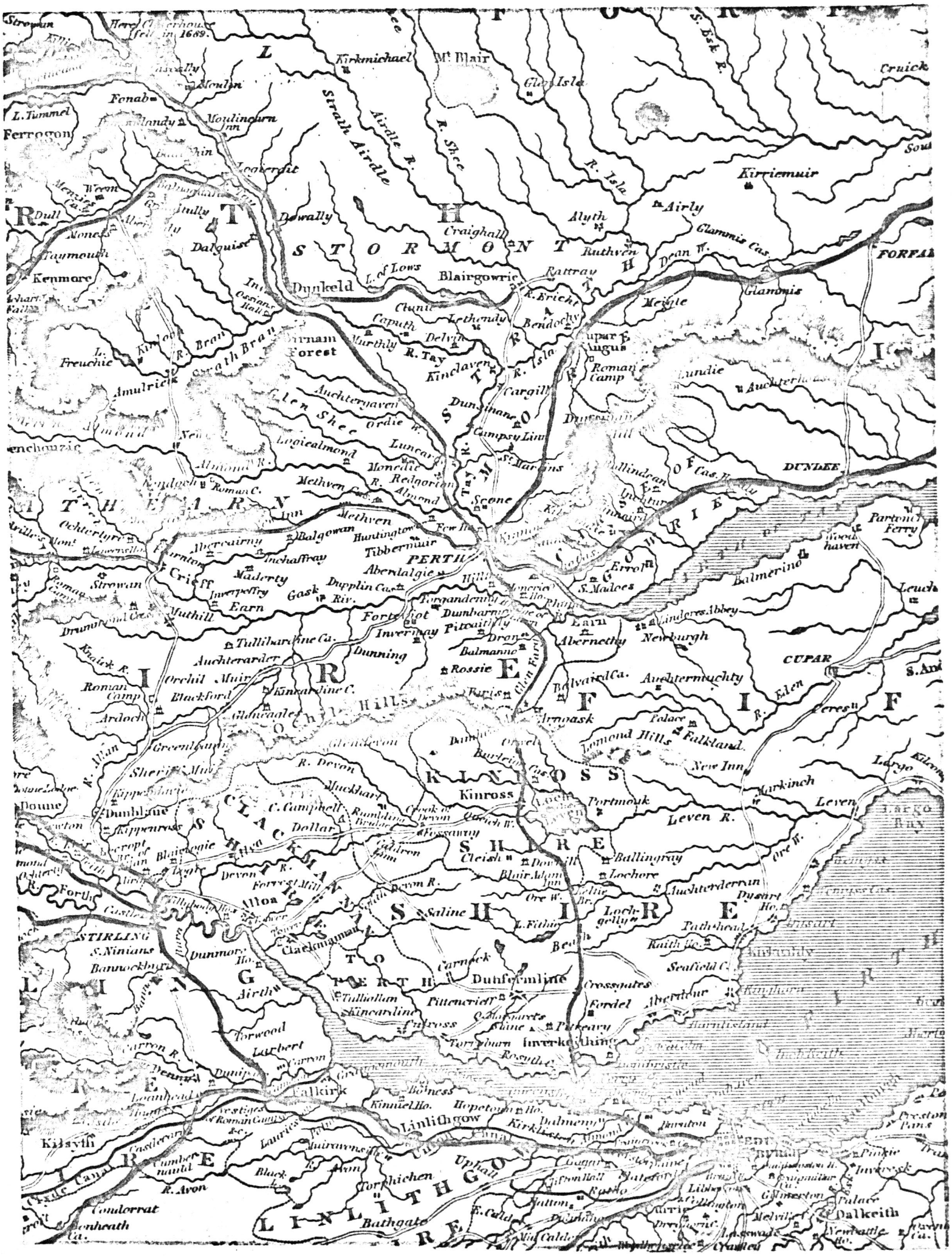
36 The narrative at this point is based on the Minute Book of the Blairgowrie Trust, 1830-1878.

37 The first indication of this is recorded in the minute for 25 September 1830.

With Mackenzie presiding on 22 May 1833, the full Blairgowrie Trust met and received McConnell's report and unanimously agreed to put the trust under McAdam and McConnell who were authorized "to proceed with its [the new road's] execution as speedily as possible." The Perth Banking Company was selected to provide the funds (£2,250) at four per cent. Apparently the work was well under way by August 1834, for on the sixth of that month it was necessary to borrow an additional £300 to complete the road. There is no indication in the minutes as to the date of the completion of this road, and they are strangely silent on the occasion of the death of McAdam. McConnell, however, held the post until April 1855, when at a meeting on the twenty-seventh of that month, it was resolved that inasmuch as "the rents at toll bars had recently fallen so very much it will be necessary to dispense with the services of Mr. McConnell the Surveyor, which they [the trustees] do with reluctance." Complete satisfaction was expressed with his work.[38]

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38 See Minute Book, 1830-1878, and also Blairgowrie Cash Book, 1833-1879.


PERTH
STORMONT
Kirkmichael
Mt Blair
Strath Airdle
Airdle R.
R. Shee
R. Isla
Kirriemuir
Airly
Glamis Cas.
Craighall
Alyth
Ruthven
Dean W.
Dunkeld
Blairgowrie
Rattray
R. Bricht
Meigle
Glamis
Clunie
Lethendy
Bendochy
Caputh
Delvin
Murthly
R. Tay
Kinclaven
Cargill
Dunsinane
Campsy Lin
St Marons
Roman Camp
Auchterhouse
Dundee
Dundee Cas.
Auchtergaven
Ordie R.
Luncarty
Logicalmond
Moncrieff
Redgorton
R. Almond
Methven
Methven Cas.
Scone
Tay R.
Roman C.
Balgowan
Huntingtower
Tibbermuir
Aberdalgie
Inchaffray
Abercairny
Crieff
Maderty
Strowan
Gask
Dupplin Cas.
Earn
Forteviot
Dunbarney
Pitcairlie
Drone
Balmanno
Rossie
Tullibardine Ca.
Auchterarder
Dunning
Orchil Muir
Blackford
Kinnaird Ho.
Ardoch
Roman Camp
Glendevon
Sheriff Muir
R. Devon
Muckhart
Dollar
Dumbline
Doune
Kippendavie
Kippenross
Clackmannan
C. Campbell
Ramblding Bridge
Cleish
Blair Adam Inn
Saline
Loch gelly
Lochore
Ballingray
Auchterderran
Dysart
Pathhead
Kirkcaldy
Seafield C.
Crossgates
Fordel
Aberdour
Inverkeithing
Dunfermline
Carnock
Tullibody
Alloa
Devon R.
Forest Mill
Clackmannan
Stirling
St Ninians
Bannockburn
Dunmore
Airth
Torwood
Larbert
Carron R.
Falkirk
Bonnes
Kinniel Ho.
Hopetoun Ho.
Linlithgow
Kirklistone
Dalmeny
Barnton
Kilsyth
Auchinstarry
Black Loch
Torphichen
Uphall
Bathgate
R. Avon
Condorrat
Lennoxtown
Lennoxtown Ca.
Balvaird Ca.
Auchtermuchty
Falkland
Lomond Hills
Newburgh
Abernethy
Lairn
Cupar
Ceres
Leven
Leven R.
Largo
Largo Bay
New Inn
Markinch
Portmoak
Kinross
Loch of Leven
Tullibardine Ca.
Roman Camp
Fenab
Moulinearn Inn
Ferrogon
L. Tummel
Weem
Dull
Aberfeldy
Moness
Taymouth
Kenmore
Loch of Lows
Ossians Hall
Grandtully
Dowally
Loch Freuchie
Amulrich
Strath Bran
Forest
R. Bran
Ballinluig
Logierait
Inver
Aberfeldy
Weem
Menzies Ca.
Glen Shee
Enchonzie
Almond R.
Roman C.
Methven
Huntingtower
Tibbermuir
Aberdalgie

The success that McAdam and McConnell enjoyed in their dealings with the trusts of the Carse of Gowrie, Dunkeld, Crieff, and Blairgowrie was not attained in their relationship with the trustees of the Great North Road.

The Great North Road between North Queensferry and Perth was withheld from the control of the respective shires (Fife, Kinross, and Perth), and placed under an autonomous group of trustees. An Act of Parliament in 1829 described the charge of the trust as "the Great North Road leading from the North Queensferry and from the harbour of Burntisland, both in the county of Fife, by Kinross, to the city of Perth; and also the road from the said North Queensferry to the town of Dunfermline."[39] This act, while repealing two older laws,[40] set forth the composition of the authorized trust, its powers and duties, and in detail specified the tolls and the regulations to be observed by trustees, their employees, and travelers. Furthermore, the act directed the trustees to make and maintain an alteration in the Great North Road just north of Kinross.

After organizing for its work, the newly-constituted trust

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39 Act 10 George IV, Cap. 61.
40 Act 49 George III, Cap. 31, and Act 2 George IV, Cap. 28.

in 1830 appointed a committee to undertake the specified alteration, described as a new line of road "from Hattonburn to a turn in the road south of Hays Mill."[41] On 31 August this committee, under the chairmanship of the Lord Lieutenant of Kinross, decided that McAdam be invited to examine the proposed line and give his opinion of the best manner of its construction. McConnell, "the partner of Mr. McAdam," accordingly made the survey and filed his report the following October. In view of the fact that most of McAdam's work was reclaiming old roads, it is interesting to note his recommendations here. He proposed (through his intermediary, McConnell) that a metaled road be formed twenty-one feet in width and twelve inches in depth. After grading, a four-inch layer of sandstone should be laid, he said, followed at intervals by two four-inch layers of whinstone. McConnell estimated the price of stoning at £709 per mile, or (if preferred) a nine-inch layer of metal could be applied for only £422 per mile. On 23 October the committee formally appointed McAdam as its surveyor, and directed him to proceed, the new road, however, to be constructed only eighteen feet wide (with forty feet between fences) and twelve inches

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41 The Minute Book, 1829-1843, and various other records of the trust (as noted hereafter), all of which are in the custody of the County Clerk, Perth, form the basis of this narrative.

deep. On behalf of himself and McAdam, McConnell at that same committee meeting submitted detailed estimates of the costs of the new road, including "cutting," draining, building bridges and culverts, fencing, the purchase of land, stoning, and lifting and stoning the old road from Milnathort to Kinross. The total figure amounted to £10,176. When questioned as to the fees expected by McAdam, McConnell replied that McAdam's usual rate was six pounds per mile per annum on condition his appointment was for five years. Furthermore, he wished that provision be made for one sub-surveyor at two guineas per week and another at one guinea per week during the course of the new construction. The committee immediately concurred in these stipulations and directed him to proceed forthwith. On 20 April 1831 the general meeting endorsed the action of its committee and at the same time authorized the committee to settle the superintendence of the road from Damhead to Perth in any desirable manner.

There must have been some discussion of salary, for by letter of 19 April 1831 McConnell informed the trust that he was sure McAdam would concur in accepting a reduction in salary to accommodate the strained finances of the trust. They would accept a more moderate sum, he said, "or indeed nothing, should

the state of the funds be such as to require it...."[42]

But from the beginning there were sources of irritation. During the summer of 1831, it appears, an employee of McAdam by the name of Corbyn was charged by "Mr. Jardine," who had drawn the original specifications for the proposed alteration, with deviating in important and harmful details from his drawings of bridges and culverts. On 10 August that year the trustees indicated their perturbation by directing a letter to McAdam and McConnell, assigning full responsibility -- financial responsibility -- to them. The preses said of them,

> The great respectability of those gentlemen, and speaking for myself the impression which the very slight intercourse I have had with them recently makes it extremely desirable that the claims of the Trustees should be proposed to their consideration in the manner most agreeable to gentlemen of character and reputation....[43]

At a rather well-attended annual meeting of the trust on 18 April 1832, Sir Alexander Muir Mackenzie[44] moved to amend a motion by the Lord Chief Commissioner, which was critical of the work of McAdam and McConnell. Mackenzie's amendment proposed the placement of the entire trust -- forty miles of road

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42 McConnell to "Messieurs Miller," Treasurers of the Great North Road, Edinburgh University Pamphlets, XII, 30.

43 Great North Road Minute Book, 1829-1843, minute for 19 August 1831.

44 This gentleman had showed himself to be a friendly patron of McAdam in the meeting of the Dunkeld and Blairgowrie Trusts.

from North Queensferry and Burntisland to Perth -- under the care of McAdam and McConnell at an annual salary of £300; and further, that the aged surveyor of the southern district (twenty-two miles) be retired on a generous annuity.

This amendment, which was carried by a vote of twenty-three to fourteen, violently split the trust and doubtlessly alienated many trustees otherwise friendly to McAdam and his assistant. It was considered an effort by McAdam and McConnell, working through their friends, to oust "Mr. Drysdale," the faithful old surveyor of the southern district, and to secure the lucrative appointment as sole surveyors of this important trust.

At a special meeting of the trust on 18 June 1832, it was found that the County Hall in Kinross was inadequate and that it was necessary to assemble in the Parish Church, for 264 trustees were present! The Lord Chief Commissioner (William Adam) presented a long opinion prepared by Andrew Skene, an Edinburgh advocate, purporting to show that the removal of Drysdale was illegal, because the required statutory notice of intention had been violated. "I am therefore upon the whole humbly but decidedly of opinion [submitted Skene], that Mr. Drysdale still holds his situation, and cannot be legally removed from it, except by giving due notice in the manner prescribed by

Statute...."[45] On motion of the Lord Chief Commissioner the action of the preceding April was reversed by vote of 177 to 78. Mackenzie objected to this decision in a vigorous formal protest, in which he was joined by a few other dissatisfied trustees.

On 25 July 1832 the committee in charge of the northern part of the Great North Road (twenty-two miles) offered to give the older portion of their line (which had not yet been formally committed to McAdam and McConnell) if they would submit to a test comparing McAdam's use of the natural soil as a foundation with a foundation of paved stones. McAdam angrily rejected the plan on the grounds his own system had long since proved superior.

At the next general meeting of the trust (27 August 1832) the Lord Chief Commissioner, serving as preses, took the lead in an anti-McAdam campaign. First he proposed that McAdam enter a competition with John Pollock of Newhouse, another surveyor: again McAdam declined. Next the Lord Chief Commissioner proposed that the lower twenty-two miles of road next to the Forth be left under the care of Drysdale at two pounds per mile

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45 Great North Road Minute Book, 1829-1843, Minute of 18 June 1832.

per annum. He then sought to secure the discharge of McAdam and McConnell on the grounds that their fees (six pounds per mile) were excessive. Yet McConnell in April 1831 had specifically declared he and McAdam would accept the post at a reduced figure, or "indeed /for/ nothing" if the funds of the trust required it;[46] and McConnell repeated his offer in a letter to the clerk of the trust in July,[47] while McAdam expressly reiterated this spirit of compromise in a personal letter to the Lord Chief Commissioner on 21 August.[48]

McAdam and McConnell were finally given the entire northern portion of the Great North Road under the parliamentary commissioners for five years from Whitsunday 1832, and were allowed thirty pounds per mile for its upkeep. A report critical of McAdam was circulated by the preses of the trust, to which McAdam protested vigorously from Hoddesdon in a letter to his friend Mackenzie in December 1832.[49]

Throughout the years 1833 to 1836 there were continuous complaints against McAdam and McConnell. Further accusations

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46 McConnell to "Messieurs Miller," 19 April 1831, op. cit.
47 McConnell to J. W. Williamson, 26 July 1832, Edinburgh University Pamphlets, XII, 30.
48 McAdam to Adam, 21 August 1832, ibid., XII, 29.
49 McAdam to Mackenzie, 16 December 1832, ibid., 1151, 9.

against Corbyn were made, although finally McAdam and McConnell, who accepted full responsibility, were cleared without suffering any personal loss. The "Defiance Stage Coach" and numerous individuals protested the "ruinous condition" of the roads. By early 1834 such complaints were numerous and had become personal, the minutes of the trust indicating a growing unrest among the trustees. In December 1835 the trustees gravely addressed McConnell in writing:

> Dear Sir We are sorry to state that complaints are reaching us from all quarters as to the mode of laying down stones and blocks of wood on the road betwixt this [?] and Kinross which in the case of the Defiance may be the cause of some serious accident as the drivers say they cannot keep their time on the road if these obstructions are laid on this part of it and that nothing of the kind is done on any other part of the road from Edinburgh to Aberdeen. Mr. Bromley's attention has been drawn to this very frequently but no change is made. Surely it would be enough to put them on one side one day and the other the next....[50]

McConnell's repeated explanations did not soothe the disgruntled trustees, who were further angered when he submitted his annual report for 1835-1836 revealing a heavy expenditure amounting to £804. Nor did the final report of the construction of the modification in the road serve to calm the trustees--the estimated expenditure of £10,176 had been exceeded by £3,583! In scathing terms they denounced him,[51] accusing him of

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50 Trustees to McConnell, 14 December 1835, Great North Road Letter Book, 1832-1844.

fair promises but foul performance, that every year the trustees were led to expect improved roads, "while it now turns out that the greater part of the northern line is in an insufficient state of repair."[52]

The Lord Chief Commissioner and preses called a special meeting of the trust for 21 October 1836 to consider the state of the "northern line" and the advisability of renewing the expiring contract with McAdam and McConnell. The aged Drysdale was profusely lauded for his long and successful service, his efficiency contrasted with the alleged inefficiency of McAdam and McConnell. At the next meeting (17 March 1837) Allan Watt was appointed general surveyor of the entire trust at a salary of £100 per annum. Drysdale was honorably retired with a grant of £210, "a silver cup to the value of £12 or £15," and warm commendations for his service of thirty years. No word of regret was expressed at the death of McAdam, which had occurred in the meantime. McConnell, however, received a brief word of

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51 Nothing is said of McAdam in the minutes of 1835 or 1836, and it is not known how active he was. McConnell, it is assumed, while actively in charge of Perthshire operations during these two years, was still accountable to the elderly McAdam.

52 Great North Road Minute Book, 1829-1847, minute of 19 May 1836.

mention -- the clerk was instructed to inform him that his services would no longer be required after Whitsunday next!

McConnell filed his final report from Penrith on 13 May 1837, showing an expenditure of £800 (forty-four pounds per mile) for the year. Watt in his initial reports was exceedingly critical of his predecessors, especially for their work on the new road. Apparently he gave satisfactory service, although his annual repair bill averaged £1,700 (forty-two pounds per mile) for at least the first five years of his management.

McAdam's career in Perthshire is somewhat confusing, almost anomalous. At the height of his fame he was invited to extend his system to one district trust in Perthshire, the Carse of Gowrie. Within the next few years his success there was such that three other trusts in the same county asked for his superintendence. This placed him in charge of eighty-four miles of important turnpike roads. The official records of all four trusts clearly indicate that he served all of them well, and his assistant McConnell continued in their service long after McAdam's death.

But the story of his dealings with the Parliamentary Commissioners of the Great North Road is entirely different. From the first months of his relationship with this trust there was

misunderstanding and constant bickering. It appears that McAdam had offered repeatedly to serve the trust at a lesser salary than he first specified, and the attitude of the trust on this point is open to criticism. But there can be no valid excuse for his failure to keep the eighteen miles of the "northern line" in good repair, for he was simultaneously giving satisfaction to four other trusts on four other roads radiating from Perth! One wonders also at his use of large stones on this road: perhaps he sought thus to slow down the fast coaches that traveled the Great North Road; and it is possible, too, that during the long intervals when he did not set foot in the area, his assistant may have violated his long-standing prejudice against large road metal.

Yet in many ways the Perthshire interim is typical of McAdam and his long, tumultuous career. He was sincere, yet opportunistic; eager, yet often impetuous; optimistic, yet sometimes overly-sanguine; successful, yet frequently disappointing.

CHAPTER XIV

THE END

It has been noted that the last ten years of the life of John Loudon McAdam were hardly less momentous and full of restless energy than the preceding ten. A son, however, in 1827 wondered if his father had not already entered upon his dotage.[1] It was also obvious that at least by 1833 the control of his turnpike trust activities had shifted to others, to McConnell in Perthshire and Cumberland, where with the passing of the early eighteen thirties McAdam's personal direction became increasingly less apparent,[2] and concurrently to his son John Loudon in Bristol and the southwest.

It has also been observed that McAdam had not enjoyed good health for many years. Upon his return to Scotland in 1783,[3] and again during the years 1810-1814, he had not been well.[4] At the time of his decease it was said that he was possessed of a delicate constitution, "having been afflicted with a spitting of blood for about thirty years."[5] His lifelong vigor,

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1 See above, p. 410.
2 See above, Chapter XIII.
3 See above, p. 62.
4 Testimony before Select Committee, 5 July 1820, Parliamentary Papers, 1820 (301) 301.
5 Obituary in Dumfries and Galloway Courier, 7 December 1836.

therefore, is surprising.

As far as can be determined McAdam's first confession of his realization that he had grown old was made in a letter to his niece in 1831. He wrote like an affectionate old grandfather -- and such he was:

> We got to Edin [sic] last evening with less fatigue than I expected -- still however I find myself weak and my stomach out of order -- Aunty [Mrs. McAdam] feels in the same way, but in rather a smaller degree as she had the complaint less violently -- we are to go to Kinross tomorrow about 26 Miles which is an easy journey and the weather is very fine -- travelling, if not violent, always does me good so I hope to be quite strong before I reach Aberdeen --
>
> I had a message to deliver to you from Cousin James, but I am a bad hand at speechifying, so in few words I will write it -- We agreed to tell you that if both or either of us could assist you, or forward your wishes in any way, either in business or with regard to your children, you was to consider me as a Dutiful Father and James as a kind Brother, both ready, willing and anxious to be useful to you -- I am not fond of long professions, and prefer performance to promise -- so I will not enlarge on the subject -- I feel however a good deal more than I can readily find expressions to suit, of your kindness when a good Providence threw me sick at your door, you have added to an affectionate relation a grateful friend --
>
> I am anxious to hear how Thomas is. Wm. M. thinks his stomach is out of order and that you should be very careful about his eating....
>
> Kiss the darlings all round for me and assure them that they have my Blessing -- say all kind things to our friends in Ayr -- Aunty joins me in love to you....[6]

On his trip to Scotland in the early autumn of the next year McAdam again addressed his niece, and expressed great fear

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6 McAdam to Mrs. Helen Ramsay, 27 July 1831, Shaw Kennedy MSS. (Mrs. H. Shaw Kennedy, London).

of a cholera epidemic in Ayrshire. Nevertheless, despite his son's earlier insinuations as to his dotage, and despite his continued ill health and the inexorable march of the years, he was until the time of his death engaged more than formally with five Perthshire Turnpike Trusts, with McConnell in the north-west of England, and with his sons in Bristol and Bath. In addition, as the Grand Old Man of British road engineering and coaching he was doubtlessly still consulted by Parliament and varied turnpike trusts.

Of McAdam's politics almost nothing is known except what is revealed in a lively letter Wilhelmina Ramsay, the youthful granddaughter of his sister Wilhelmina Hanna, wrote to her mother in 1833. She related in part,

> The Tory member for Hertford is turned out to the great regret of this Tory place /Hoddesdon/, I am a more decided Whig than ever, old uncle and I had a 'battle' about Mr. J Kennedy he would fain make me believe that Mr Kennedy countenanced the election mob at Ayr, I can assure you I was very angry at his audacity I never mind what he says about the Reform Bill but I fight for the honesty of my Whig friends.... indeed old uncle's violence in politics covers the weakness of his cause what they want in argument they make up in violence.[7]

That his Scottish Presbyterianism still retained his favor after many years in America and England is indicated by this

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7 Wilhelmina Ramsay to Mrs. Helen Ramsay, 4 April 1833, Shaw Kennedy MSS.

same letter from McAdam's niece "Willie." She had "marched off to Chapel" on Good Friday forenoon, and in her letter informed her mother that "Old Uncle means to write you soon to tell of my apostasy. I am following the White Sarks and eating cross buns on Good Friday...."[8]

With the years the aging McAdam saw many of his family and friends pass away. His sister Elizabeth died in 1824 or 1825, and his first wife in February of the latter year. His daughter Gloriana Margaretta and his son-in-law Captain James Sanders both died in Bath in 1835; his son William at Ballochmorrie in February 1836; and his friend and namesake John McAdam of Castledykes later that same year.

As the sands of time ran out McAdam apparently was overcome by the longing to spend his last years in the land of his childhood. His Scottish visits grew lengthier, and there is evidence that he often visited Moffat in Dumfriesshire. Quite possibly he was a guest of Lord Rollo at the familiar Dumcrieff House where his grandmother had once lived and died, and where he briefly resided upon his return from America in 1783.[9]

His great nephew in 1893 has described McAdam's annual pilgrimages to Scotland:

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8 Ibid.
9 In 1823 Dr. Rogerson died, leaving Dumcrieff to his

The writer of this sketch can remember Mr. M'Adam during the last years of his life.... Hoddesden [sic] in Hertfordshire was at this time his ordinary place of residence, but each year accompanied by Mrs. M'Adam, he left home for the north, spending several months of the summer and autumn in Scotland. The cavalcade, if we may be allowed to use the expression, with which this yearly journey was made, consisted of a close carriage, drawn by two old horses, -- both great pets. Behind the carriage followed a beautiful pony bridled and saddled, and at the heels of the latter trotted a Newfoundland dog. The canine attendant's principal duty was to see that the pony did not lag by the way, one he performed with unexampled fidelity and perseverance. On arriving at any spot of special interest a halt was ordered, and pony at once in readiness, carried his master sometimes to view a recent triumph in road making, sometimes to visit an old castle, or secluded glen, or even at times, fowling piece in hand, across these wide desolate looking moors, which M'Adam's boyhood, spent in Ayrshire, had rendered familiar.[10]

Tregelles has penned a slightly different version of this annual pilgrimage, narrating that the elderly McAdam and his wife drove northward each year "...a chariot and pair... the horses were thoroughbred, but more famous for bone than sinew, their Master a tall gaunt Scotchman, the coachman corresponding with his master, while a Shetland pony and a black dog running behind completed the Party."[11]

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granddaughter Margaret, who married the Master of Rollo. This property remained in the Rollo family until after World War I. See "Dumcrief and Craigieburn," typescript in the possession of Rev. Adam Forman, the present proprietor of Dumcrieff House.

10 David S. Ramsay, "Biographical Sketches of some Ayrshire People of the Last and Present Centuries," 1893, p. 63, typescript in the Carnegie Public Library, Ayr.

11 J. A. Tregelles, A History of Hoddesdon in the County of Hertfordshire... (Hertford, 1908), p. 107.

McAdam made his last such journey to Scotland in 1836. Shortly after arriving in the Lowlands in the autumn of that year, he passed away "...at Moffat County Dumfries 26th November 1836 and is buried in Moffat Churchyard."[12]

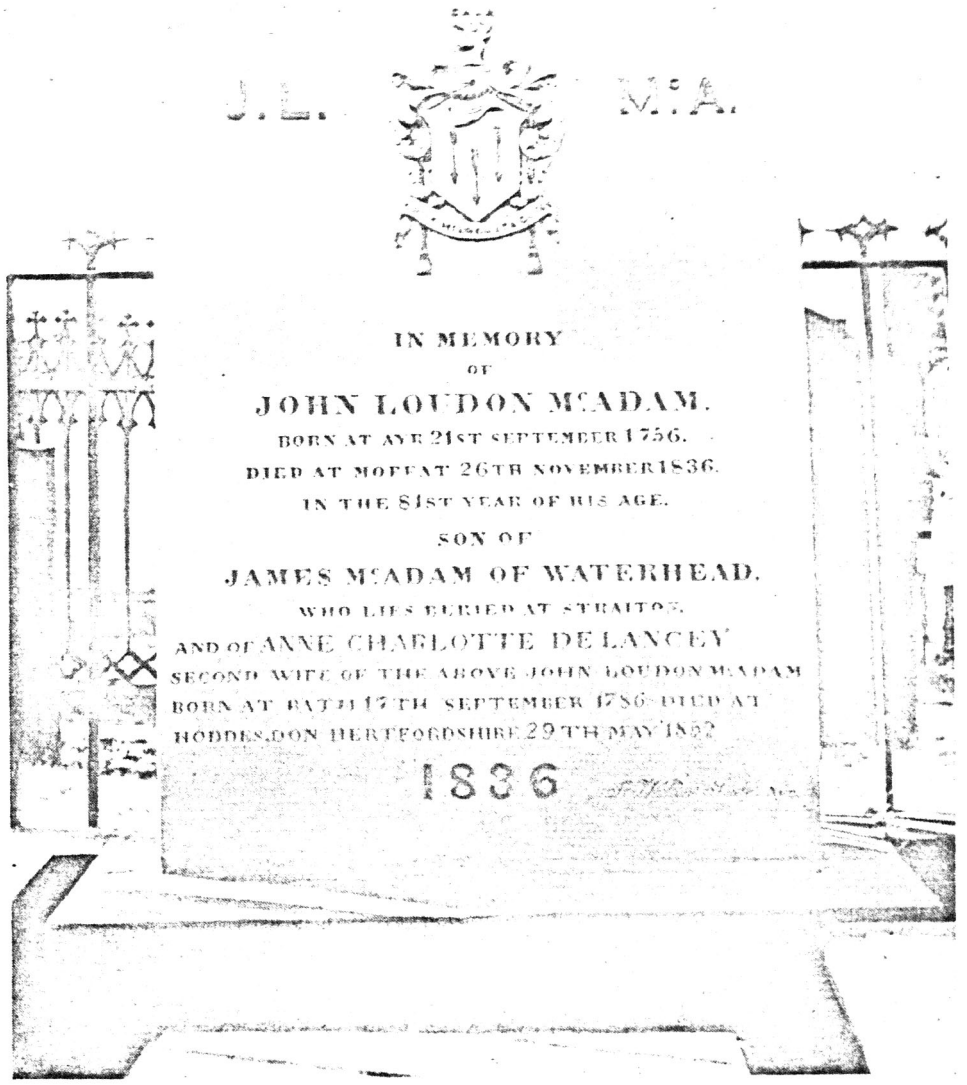
The London Times recorded the death of McAdam in a cursory obituary notice and without editorial comment.[13] The Dumfries and Galloway Courier, which was published at Moffat, carried a lengthy obituary article on 30 November, and the following week a three-column editorial describing the funeral on Friday, 2 December. He was interred, as he had requested, in his grandmother's grave. Among his family and friends who attended the funeral were his surviving sons, Sir James and John Loudon, Jr.; his grandsons William McAdam and James Sanders; T. Stewart of Glenmoriston, a nephew; John McConnell, his faithful protege and partner in many engineering ventures; a number of more distant relatives, including "Mr. Graham of Shaw," Major Adair, and "Mr. Stewart of Hillside;" the Rev. Dr. Singer; and Messrs. Jardine, Pearson, and others.[14]

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12 McAdam Family Bible, now in the possession of Mrs. Katherine L. Scott, Hest Bank, Lancashire. This entry was made by William McAdam, grandson of John Loudon McAdam.

13 29 November 1836.

14 30 November and 7 December 1836.



TOMBSTONE ON THE GRAVE AT MOFFAT

Photograph by T. Hood, Moffat

Felix Farley's Bristol Journal noted that

Mr. McAdam was well known and very much respected in this city, where he resided at the period when he first turned his attention to road-making, and originated that system of applying scientific principles to the construction of roads which has proved so extremely beneficial to the country, and by which his name has become associated with the benefactors of the nation. He was always remarkable for great acuteness of intellect, and will be long remembered by a large circle of relatives and friends.

Editorially the same paper commented, "The whole British public will learn with regret that this great benefactor of his species is no more. He was, however, as full of years as he had long been of honour...."[15]

The Bath Turnpike Trust, with which McAdam had been associated for many years,[16] passed a resolution of regret at his passing,

...that this meeting has received with the deepest regret the information of the decease of John Loudon McAdam, Esq., one of the General Surveyors of this Trust; a gentleman of the highest integrity and ability, whose extraordinary useful life will perpetuate his memory in the recollection of a grateful public.[17]

The Edinburgh Scotsman on 17 December quoted the obituary which had appeared in the Dumfries and Galloway Courier, then added,

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15 3 December 1836.

16 See above, pp. 283-288.

17 Printed in the Bath Chronicle, and quoted by Felix Farley's Bristol Journal, 10 December 1836.

In our last we paid a passing tribute to the mental endowments and moral worth of this truly venerable and deserving character, and feel a melancholy pleasure in adding, that his remains were interred /sic/ on Friday the 2d inst., in Moffat churchyard....

Both the Annual Register[18] and the Gentleman's Magazine[19] in lengthy articles praised both McAdam and his work. Especially laudatory was the Gentleman's Magazine, which said in part,

In manner and address no man could be more agreeable. He was a man of science generally, conversed most intelligently on almost every subject, kept pace with the advancing knowledge of the age, and composed with all the accuracy of a professed litterateur.[20]

Thus did the press of Great Britain report the news of the death of John Loudon McAdam.

Despite all that has been said to the contrary, it is clear that McAdam died a poor man. His will, drawn up 7 April 1828, was very brief, stating that he had provided for his three sons "by putting them to business in road-making so they are independent;" and further, "My deed of trust made over to my daughter /not named/ all my real estate in Scotland. Now I leave all

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18 For 1836, published 1837, p. 222.
19 N. S., VII, p. 101.
20 Ibid.

residue to my excellent wife Ann Charlotte McAdam my sole Executrix."[21]

In 1847 his widow asked finally that her deceased husband's will be probated. This had never taken place, "because the whole personal estate was either in possession of Executrix at date of his death, or money paid to her since, his salaries, etc. as Gen. Surveyor of Roads." She now wished his will probated, she said, for at his death he possessed certain railway shares, and she desired to secure them together with ~~accrued interest.~~ accumulated dividends.[22]

As early as 1840 Mrs. McAdam must have found her personal finances strained, for in that year she wrote to Thomas Cochrane, the 10th Earl of Dundonald, asking for relief from an annuity that her husband, as executor of Lady Miller's will, had contracted to pay on behalf of Lord Dundonald. It appears that when Dundonald was commencing one of his many foreign expeditions he asked McAdam to relieve him of the necessity of paying a five pound annuity to a superannuated servant of Lady Miller's. For a small lump sum McAdam assumed this obligation. This

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21 Located in P. C. C., 1847, Hertford, June 503, Principal Probate Register (Somerset House, London). See Appendix H.

22 Attested document appended to original will, ibid. Mrs. McAdam under oath on the same paper declared that her husband's estate was less than £1,500.

agreement was made about 1817. The aged servant seemed destined never to die, however, and McAdam made the payment to him annually, even after he had expended the sum originally given him. Mrs. McAdam had been left with the continuing obligation and apparently was so much in need by 1840 that she pleaded with Dundonald in these words:

> Since the death of Mr. McAdam I have been called upon for the sum, and obliged to pay it, which I think you will consider unjust, especially when I assure you that Mr. McAdam was a poor man and unable to leave me more than the mere amount of salaries due at the time of his death, which were but trifling. I have vainly solicited the present Government, to grant me a pension, or to pay a debt of £2,857 -- owing by them to my husband, and intended by him to be employed for my benefit -- I feel therefore that with a very limited Income the payment of the annuity to be peculiarly hard, and hope that you will have the kindness to relieve me from the burthen... without considering the request unreasonable, or my application to be intrusive.[23]

Lord Dundonald did not trouble to reply to her plea, however, whereupon in 1841 she sent him a copy of her initial request.[24] In 1849 she again sought relief from the payment of the five pound annuity. The old servant James Campbell had finally died, but Lady Miller's daughter had claimed the annuity under reversion, and Mrs. McAdam wrote that she could not pay

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23 Ann Charlotte McAdam to the 10th Earl of Dundonald, 29 September 1840, Dundonald Papers (National Library of Scotland, Edinburgh).

24 22 March 1841, ibid.

this sum any longer from her very limited income of £250 per annum. Accordingly, she enclosed in her letter the claimant's address, feeling

> assured /his/ gentlemanly feelings would not desire the widow of /his/ Father's old and valued friend to be so burthened any longer, even did any legal claim exist, which /she had been informed/ from good authority... did not exist.[25]

Nothing further is known about Mrs. McAdam's last years, except that she continued to reside in Hoddesdon, where her brother-in-law, James Fenimore Cooper, visited her in 1846.[26] She passed away in Hoddesdon on 29 May 1852 and was buried in the Broxbourne Parish Church,[27] leaving a very modest estate to her heirs.[28]

Ann McAdam Sanders had in the meantime died at Bath (1841), and Sir James Nicoll McAdam's death occurred two months after that of his stepmother, in July 1852. John Loudon McAdam survived his parents and his brothers, passing away at his home in Clifton, on the outskirts of Bristol, on 21 March 1857.

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25 8 January 1849, ibid.
26 Tregelles, loc. cit.
27 A small plaque has been erected to her memory on the wall of the south aisle of this church. A brief notice of her death appeared in the New York Daily Times, 24 June 1852.
28 Her administration is located in the Principal Probate Register (Somerset House, London).

Thus lived and died the colorful and significant John Loudon McAdam. Many have been the comments in evaluation of him, both in this study and elsewhere, and in the preceding pages numerous quotations are cited from the available authorities. It is perhaps fitting in conclusion to take note of the amazingly rapid way in which his name became a part of the language, at least as early as 1821, by way of suggesting the tremendous popularity he attained in his own day. And once the name received general currency within the field of road engineering, numerous other uses for it were quickly found in all branches of literature.

The comprehensive Oxford English Dictionary cites no less than seven derivatives of the Scottish proper noun "McAdam."[29] All but one, "macadamizing," were in vogue during the lifetime of the famous roadbuilder, and most derivatives originated in the mid-eighteen twenties. Sir J. A. H. Murray's copious notes in the Oxford English Dictionary include fifty-five direct quotations from nineteenth-century literature to show how the name and its offspring captivated the popular imagination and was utilized as a fresh, picturesque fashion. Twenty-one of

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29 (Oxford, 1933), VI, letter "M," p. 2.



COAT OF ARMS APPEARING ON TOMBSTONE OF JOHN LOUDON McADAM

these usages are drawn from the period 1821-1836, the final years of McAdam's life. Included among the authors cited are Marryat, Hood, Southey, Thackeray, Moore, Lytton, Bentham, and Holmes. Prominent journals using the term were Blackwood's, Monthly Magazine, North American Review, Athenaeum, Macmillan's Magazine, The Times, London Magazine, and Westminster Review.

The earliest form noted by Murray is the common noun "macadamite" -- "one who practices or advocates McAdam's system of roadmaking." In 1821 an anonymous writer humorously commented in The Monthly Magazine that "Some incidental remarks of mine in a paper I sent you in May last, have caused the Macadamites to throw some of their spare dirt about."[30] Several other interesting discoveries by Murray include the following:

"We shall see no more of him (our surveyor); for the MacAdam ways are warranted not to wear out." (Mitford, 1824)
"He was one of Nature's Macadamized achievements. His great fault was his equality." (Lytton, 1827)
"The enemy's centre should have been macadamized by our seven three-deckers." (Marryat, 1829)
"Our... Bishop has... macadamized the way for his successor." (Orderson, 1842)
"...and by trying to macadamize her into small talk...." (Smedley, 1852)
"Fathers have flinty hearts, and even the amenities of the 19th century have failed to macadamize them." (Coverdale, 1855)
"Your mind is certainly Macadamized." (Jelf, 1893)[31]

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30 Vol. LII, p. 104, quoted in ibid.
31 Oxford English Dictionary, loc. cit.

The personality and schemes of McAdam were a popular subject for many minor poets of the day, professional and otherwise, as well as the writers of prose. The Mirror in 1825 printed a poem of twenty-eight verses (author unknown) entitled "Steam." One verse read as follows:

> McAdam who such feats has done
> That we a statue should decree him,
> Will see along our railways run
> Stage-coaches hissing hot with steam.[32]

In the same year (1825) The Times gave McAdam a humorous and somewhat left-handed compliment when it published "The Roadmakers, A New Ballad for the Year 1825:"

> Ye roadmakers of England
> Who sit and plan at ease,
> Ah! little do ye think upon
> Our cherished lawns and trees.
> Give ear unto the gentlemen,
> And they will plainly show
> All their cares and their fears
> When a-measuring you go!...
>
> Now courage, all brave gentlemen
> Your honours forth advance,
> And yield to ne'er a despot yet
> From Scotland nor from France.
> Macadam would reduce us all
> To break up stones, we know;
> May our stones break his bones
> When a-hammering he'll go.[33]

A new stanza was printed in The Times eleven years later,

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32 Quoted without further identification by Thomas Salkield, "John Loudon McAdam -- the Man and His Methods," The King's Highway, VII, no. 4 (October 1936), p. 18.

33 Ibid., p. 7.

24 January 1836, when the Coaching Era was almost over and McAdam was in his eightieth year:

> But now Macadam's reign is o'er
> And railways take his place,
> And fourteen miles an hour or more
> Is deem'd a snail's fast pace.
> Their grinding irons pierce our souls,
> Their furnace makes us glow.
> May Brunel fare as well,
> If a-tunnelling he'll go.

In McAdam's own city of Bristol a prominent paper printed sixteen lines which might have been the occasion for a libel suit:

> How does the house McAdam thrive,
> Is't made a comfortable hive,
> Has he his fortune doubled, trebled,
> All his ways gravelled, smoothed and pebbled,
> And made fine Gentlemen and Madams,
> O' the female and the Male McAdams?
> Deucation thus by throwing stones,
> Raised up a progeny of bones; --
> Happy McAdam who cans't knock
> A ten pound note out of a rock,
> Cans't so adroitly smooth the way,
> To make e'en Parliament defray;
> Had I that art by you discerned,
> I wouldn't leave a stone unturn'd
> Till I had learnt to coin and mint
> A golden sovereign from a flint.[34]

The poet Thomas Hood frequently mentioned McAdam, and on one occasion addressed a long "Ode to Mr. McAdam," in which he

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34 28 January 1826. It will be recalled that the bitter Bristol Turnpike Trust controversy had just been brought to a conclusion by this date.

described his subject as a

> Dispenser of coagulated good,
> Distributor of granite and of food!
> Long may thy fame its even path march on
> E'en when thy sons are dead,
> Best benefactor! though thou giv'st a stone
> To those who ask for bread!...
> Thou hast smoothed alas! the path to the Old Bailey,
> And to the stony towers
> Of Newgate to encourage the approach
> By caravan or coach,
> Hath strewed the way with flints as soft as flowers.
> Who shall dispute thy name
> Insculpt in stone in every street?
> We soon shall greet
> Thy trodden down yet all unconquered fame.[35]

However, it is not in the bad poetry of the contemporary age of McAdam that a true evaluation of his work is to be found, but rather in the considered yet eloquent prose of the scholarly Jackman and Treveleyan:

> It was his system of road construction which, consistently pursued, brought the chief English roads to a state of comparative perfection and elicited great praise for the decisive improvement wrought.... But it was not alone because of his having perfected a method of scientific road building that Macadam merits such ample recognition. His name is connected also with a system of administration which went hand in hand with good formation of roads.[36]

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35 Thomas Hood, The Complete Poetical Works of Thomas Hood, ed. Walter Jerrold (London, 1920), pp. 718-721.

36 William T. Jackman, The Development of Transportation in Modern England (Cambridge University Press, 1916), I, p. 279.

'Macadamising' was not only, in its literal sense, a practical work of great public utility; it became the symbol of all progress, and was metaphorically used in common parlance for any aspects of the new age where improved and uniform scientific methods were in demand.37

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37 George M. Treveleyan, British History in the Nineteenth Century and After (1782-1919), 2nd ed. (London, 1937), p. 166.

APPENDIX A

"Directions for Repair of an old Road, being the substance of a Communication made to a Committee of the Honourable House of Commons in 1811, and published with the Report by Order of the House, with additions and alterations, deduced from actual practice during the last three years."*

1st February, 1819.

No addition of materials is to be brought upon a road, unless in any part of it be found that there is not a quantity of clean stone equal to ten inches in thickness.

The stone already in the road is to be loosened up and broken, so as no piece shall exceed six ounces in weight.

The road is then to be laid as flat as possible, a rise of three inches from the centre to the side is sufficient for a road thirty feet wide.

The stones when loosened in the road are to be gathered off by means of a strong heavy rake, with teeth two and a half inches in length, to the side of the road, and there broken, and on no account are stones to be broken on the road.

When the great stones have been removed, and none left in the road exceeding six ounces, the road is to be put in shape

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* Printed in McAdam, Remarks on the Present System of Road-making, 7th ed. (London, 1823), pp. 38-41; also, printed in McAdam, A Practical Essay (London, 1819), pp. 10-13.

and a rake employed to smooth the surface, which will at the same time bring to the surface the remaining stone, and will allow the dirt to go down.

When the road is so prepared, the stone that has been broken by the side of the road is then to be carefully spread on it -- this is rather a nice operation, and the future quality of the road will greatly depend on the manner in which it is performed. The stone must not be laid on in shovels full, but scattered over the surface, one shovel full following another and spreading over a considerable space.

Only a small space of road should be lifted at once; five men in a gang should be set to lift it all across: two men should continue to pick up and rake off the large stones and to form the road for receiving the broken stone, the other three should break stones -- the broken stone to be laid on as soon as the piece of road is prepared to receive it, and then break up another piece; two or three yards at one lift is enough.

The proportioning the work among the five men must of course be regulated by the nature of the road; when there are many very large stones, the three breakers may not be able to keep pace with the two men employed in lifting and forming, and when there are few large stones the contrary may be the case;

of all this the Surveyor must judge and direct.

But while it is recommended to lift and relay roads which have been made with large stone, or with large stone mixed with clay, chalk or other mischievous materials, there are many cases in which it would be highly unprofitable to lift and relay a road, even if the materials should have been originally too large.

The road between Cirencester and Bath is made of stone too large in size, but it is of so friable a nature that in lifting it becomes sand; in this case I recommended cutting down the high places, keeping the surface smooth and gradually wearing out the materials now in the road, and then replacing them with some stone of a better quality properly prepared.

In like manner a part of the road in the Bath district is made of freestone which it would be unprofitable to lift.

At Egham in Surrey, it was necessary to remove the whole road to separate the small portion of valuable materials from the mass of soft matter of which it was principally composed. which was removed at considerable expence, before a road could be again made upon the site.

Other cases of several kinds have occurred where a different method must be adopted, but which it is impossible to

specify, and must be met by the practical skill of the Officer whose duty it may be to superintend the repair of a road, and who must constantly recur to general principles. These principles are uniform, however much circumstances may differ, and they must form the guide by which his judgment must be always directed.

When additional stone is wanted on a road that has consolidated by use, the old hardened surface of the road is to be loosened with a pick, in order to make the fresh materials unite with the old.

Carriages, whatever be the construction of their wheels, will make ruts in a new made road until it consolidates, however well the materials may be prepared, or however judiciously applied; therefore a careful person must attend for some time after the road is opened for use, to rake in the track made by wheels.

The only proper method of breaking stones, both for effect and economy, is by persons sitting; the stones are to be placed in small heaps, and women, boys, or old men past hard labour, must sit down with small hammers and break them, so as none shall exceed six ounces in weight.

The Tools to be used are, --

Strong picks, but short from the handle to the point, for lifting the road.

Small hammers of about one pound weight in the head, the face the size of a new shilling, well steeled, with a short handle.

Rakes with wooden heads, ten inches in length, and iron teeth about two and a half inches in length, very strong for raking out the large stones when the road is broken up, and for keeping the road smooth after being relaid, and while it is consolidating.

Very light broad-mouthed shovels, to spread the broken stone and to form the road.

Every road is to be made of broken stone without mixture of earth, clay, chalk, or any other matter that will imbibe water, and be affected with frost; nothing is to be laid on the clean stone on pretence of binding; broken stone will combine by its own angles into a smooth solid surface that cannot be affected by vicissitudes of weather, or displaced by the action of wheels, which will pass over it without a jolt, and consequently without injury.

APPENDIX B

PRICES*

The price of lifting a rough road, breaking the stones, forming the road, smoothing the surface, cleaning out the water-courses, and replacing the stone, leaving the road in a finished state, has been found in practice to be from one penny to two-pence per superficial yard, lifted four inches deep; the variation of price depends on the greater or lesser quantity of stone to be broken.

At two-pence per yard, a road of six yards wide will cost, therefore, one shilling per running yard, or 88l. per mile.

Any rough road may be rendered smooth and solid at this price, unless it be weak and require an addition of stone, or require some very material alteration of shape.

Breaking stone has been reduced in price by the use of more proper hammers, and the sitting posture.

The Commissioners at Bristol used to pay fifteen pence per ton for limestone from Durdham-Down, for the use of their roads, and broken to a size above twenty ounces. -- Stone is now

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* Printed in McAdam, Remarks on the Present System of Road-making, 7th ed. (London, 1823), pp. 41-43.

procured from the same place, broken so as none exceed six ounces for ten-pence per ton! and the workmen are very desirous of contracts at that rate, because the heavy work is done by the men, the light work with small hammers by the wives and children, so that whole families are employed.

In Sussex, the proportion is greater between former and present prices; the breaking of flint cost at one time two shillings per ton, and is now done, by introducing a better method and fitter tools at one shilling per ton.

By a more judicious preparation and application of materials the quantity of stone consumed in roads is decreased, by which a great saving of expence is made, and with this great advantage, that the saving is in horse labour of cartage, while the labour price is given to men, and in such a manner as includes boys from the age of ten upwards, women and old men past the age of being able to labour hard. The proportion of men and horse labour in the Bristol district, under the former management, was

One-fourth to men's labour,

Three-fourths to horse labour.

Under a better system of management the proportion has been exactly reversed: during half a year that an exact account was

kept, there was paid.

For men's, women and children's labour, £3088

For horses' labour ..... 1035.

This immense advantage is presented in every part of the country, as roads are confined to no particular place, and are universally in want of repair: ample funds are already provided for every useful and proper purpose, although at present misapplied in almost every part of the kingdom, while the labourers are in want of that employment which it ought to afford them.

APPENDIX C

FINANCIAL STATEMENT OF THE BRISTOL TRUST*

Fiscal Year	Miles	Debt	Cash on Hand	Income from Tolls	Total Expenditure on the Road
1812	149	44,965		c. 14,000	c. 14,000
1815	149			c. 14,000	15,685
1816	149	45,236		15,641	11,273
1817	149			16,742	11,964
1818	149		2,790	16,317	12,352
1819	149			16,215	11,855
1820	177	44,200		19,733	15,684
1821	177	40,293		21,763	19,108
1822	177			21,542	15,900
1823	177			21,678	16,942
1824	177	51,550	4,478		
1826	177				14,140**
1827	177		4,211		
1828	177		4,026	21,766	12,182**

* This table has been compiled from all available sources. All figures, except in date and mileage columns, are in pounds.

** Expenditure for ordinary repairs only.

APPENDIX D

"Queries proposed to the Surveyors in the Bristol District, in March 1816."*

How long Employed.....	
Wages.....	
Description of Division.. Length..... Breadth..... Depth of Stoning.....	
Whether under Contract.....	
Stone in the Quarry.....	
Stone by side of the Road..	
Stone quarried by Contract	
Cartage by Contract.....	
Quantity of Stone used per Annum.....	
Stone broken by Contract...	
Size of Stone used in last Repair.....	
Number of Men Employed.....	

* This form was designed and used by McAdam upon assuming control of the Bristol Turnpike Trust. It is reprinted in McAdam, Observations on the Management of Trusts for the Care of Turnpike Roads (London, 1825), Appendix No. 5, p. 100.

APPENDIX E

TRUSTS SUPERVISED AND ADVISED BY THE McADAM FAMILY

1. Reported 1 February 1819:*

a. John Loudon McAdam

Bath	Northampton to Harborough
Plymouth to Ivy Bridge	Northampton to Welsford
Plymouth to Tavistock	Northampton to Newport Pagnel
Cardiff	Banbury to Edgehill
Farington	Banbury to Brackley
Beaconsfield	

"Being in Fifteen Counties and about 700 miles"

b. William McAdam

Melksham, Wilts.	10 mi.	Speenham Land, Berks.	20 mi.
Market Lavington	10	Reading, Berks.	6
Wiltshire	9	Fisherton	32
Devizes, Wilts.	21		

Total 108 miles

c. James McAdam

Ewell and Epsom, Surrey	23 mi.
Egham, Eastern Division, Middx. and Surrey	7½
Egham, Western Division, Surrey	8½
Cheshunt, Herts.	18½
Wadesmill, Herts.	29
Old North Road, Cambridge	15
Huntingdon	10

Total 111½ miles

---

* McAdam, A Practical Essay (London, 1819), pp. 18 ff.

2. Reported June 1823:*

a. John Loudon McAdam

Bristol	Plymouth
Epsom	Exeter
Egham	Westbury
Newbury	Wykeham
Reading	Royston
Oxford	Henley
Beaconsfield	Pontefract
Scarborough	Ludlow
Chester	Hundred Houses
Godalming	Kidderminster
Winchester	Tunbridge Wells
Broomyard	Stratford
Worksop & Retford	Macclesfield
Worksop & Mansfield	Wellington
Cheshunt	Ledbury

"32 Trusts of which one (Bristol) is in care of Mr. McAdam senior the others in care of his sons."

Nine Trusts in Sussex

Devizes	Cardiff
Tavistock	Banbury
Cirencester	Farmington
Shepton Mallet	Wakefield
Salisbury	Harrowgate
Isle of Wight	Radnor
Isle of Man	Kinton
Edinburgh	Mold
Catterick Bridge	Preston
Durham	Altringham
Sheffield	Wells
Brough	Appleby
Northampton	Andover
Newport	Bath

"38 Trusts none of which are in charge of Mr. McAdam's family but repaired by strangers according to his system."

"Seventy Trusts Twenty-Eight Counties"

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* Testimony before "The Select Committee on Mr. M'Adam's Petition," 5 and 7 June 1823. See Parliamentary Papers, 1823 (476) V. 53, Appendix Q.

b. William McAdam

Devizes	20 mi.	Plymouth	36 mi.
Melksham	10	Southampton	9
Newbury	20	Winchester to Alton	20
Barnstaple	68	Popham Lane	12
Black Dog	20	Winchester to Stockbridge	8
Frome	42	Winchester to B. Waltham	8
Westbury	20	Winchester to Otterborne	8
Andover	30		

Total 331 miles

c. James McAdam

Hertford Bridge	30 mi.	Stamford (5 roads)	42 mi.
Farnham	20	Abingdon and Fyfield	45
Epsom	21	Bury St. Edmonds and Sudbury	22
Cheshunt	17	Sparrows Herne	27
Wadesmill	29	Stamford Hill	20
Staines	9	Tonbridge	18
Huntingdon and Somersham	20	Seven Oaks	11
Oakingham	20	Wrotham Heath	17
Chichester	19	Lynn Districts	94
Egham, West	8	Henley and Oxford	27
Godalming	20	Surrey and Sussex, Kingston District	8
Wycomb	14	Pinner	10
Royston	15	Grantham	15
Beaconsfield	8	Horkrill	27
St. Albans	11	Kettering	12
Oxford	20	Boston	28
Whetstone	8	Sleaford	26
Welwym	20	Watton	12
Hatfield and Reading	56	Spilsby	20
		Higham Ferrers	12

Total 858 miles

d. John Loudon McAdam, Jr.

Ledbury Dist.	50 mi.	Chester to Wrexham	11 mi.
Broomyard Dist.	50	Chester to Northrop	11
Ludlow (part)	35	Flint, Holywell, and Mostyn	40
Hundred House	17	Scarborough to York (inc. Granch)	46
Kidderminster	30	York to North-allerton	33
Wellington	25	Buxton to Mac-clesfield	13
Worksop & Retford	9	Stretford	4
Worksop & Mans-field	12		
Pontefract Road	19		

Total 405 miles

3. Reported April 1825:*

a. "John Loudon McAdam continued to receive from the Bristol District of Roads, consisting of 178 miles for his own and the services of one or more of his family a sum of £500 a year,..."

b. William McAdam

Devizes	20 mi..	Westbury	20 mi.
Market Lavington	21	Andover	30
Melksham	10	Totness	40
Everly	21	Plymouth	30
Newbury	20	Southampton	9
Salisbury	30	Winchester to Alton	20
Exeter	150	Popham Lane	12
Barnstaple	68	Winchester	
Black Dog	20	Stockbridge	
Frome	42	B. Waltham	
Warminster	3	Southampton	22

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* "Mr. M'Adam; Salaries and Gratuities received by, or due to, from Turnpike Trusts, etc.," Return to an Order of the Honorable House of Commons, Parliamentary Papers, 1825 (248) XX. 149.

Cerne Abbas New Roads		Minehead New Road	14 mi.
Sturminster New Roads		Torbay New Road	3
Yeovil	25 mi.	Modbury New Road	14
Haldon New Roads	4½	Isle of Wight	
Taphouse New Road	6	Kingsbridge	
		Reading	

Total 654⅓ miles

c. James McAdam reported his services were still employed by the same trusts which had engaged him in 1823. He was also serving the following:

The Commissioners of His Majesty's Woods
Trustees of St. James Square
Commissioners of His Majesty's Navy
Commissioners of Pavement, Colchester

d. John Loudon McAdam, Jr., reported that since 1823 he had lost six trusts (Ledbury, Broomyard, Pontefract, Chester, Hundred House, and Buxton) and had been employed by three additional trusts (Cheltenham, Litchfield, and Shepton Mallet).

APPENDIX F

SPECIMEN TOLL CHARGES

1. Crieff District Turnpike Trust (Perthshire), 1811:*

For every Coach, Barouche, Chariot, Landau, Chaise, Calash, Chair, Taxed Cart, Hearse, or such other carriage Drawn by

		s.	d.
1	horse		10
2	do.	1	6
3	do.	2	6
4	do.	3	
6	do.	6	

For every Saddle horse, Mare Gelding or Mule with or without Rider Laden or unladen not drawing..... 3

And for every time any of the above Coasches horses and others shall pass after having passed or repassed within the same day to charge again

For every waggon wain Cart or other such Carriage drawn

		s.	d.
by one horse ox or Beast of Draught.....			9
2	do.	1	
3	do.	2	
4	do.	4	
5	do	5	
6	do.	6	

And for every time any of the above Waggons Carts and others shall pass after having twice passed and repassed within the same day to be charged again --

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* Crieff District Minute Book, 1811-1825, Office of County Clerk, Perth.

	s.	d.
For every Score of Oxen or Meat Cattle and so in proportion for any greater or less number not less than Eleven	1	
For every half score		8
Each Ox, etc. when the number is less than Ten		1
For every Score of Calves Hogs Sheep Lambs or Goats and so in proportion for any greater or less number not less than Eleven		6
For every half Score		4
For each Calf, Hog, etc. when the number is less than Ten		0½

A day to be computed from 12 oclock at Night to the like hour in the following night, but all Carriages let and Travelling for hire shall not be charged with the Duties when repassing even on the next day provided they be empty and Drawn by the same horse or horses --

2. Dunning District Turnpike Trust (Perthshire), 1832:*

Rate of Tolls to be levied at the Toll Bars on the Road from Dunning to Yetts of Muckhart.

	s.	d.
For every Coach, Barouche, Chariot, Landow, etc. drawn by Six Horses.....	5	
four or five do.....	3	
three do.....	3	
two do.....	2	
one do.....	1	
For every Waggon, Cart etc. drawn by Six Horses.....	5	
five do.....	4	
four do.....	3	
three do.....	2	
two do.....	1	
one do.....		9
For every Horse Mule etc.....		3
For every Cattle Beast.....		1

Sheep Lambs & Calves 1/ each Score or if a lesser number a half penny each.....

Carts where the wheels are six inches broad as described in the Act to be allowed to pass at one third less toll.

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* Dunning District Minute Book, 1820-1865, Office of County Clerk, Perth.

APPENDIX G

SPECIMEN REPORT BY McADAM

"First Annual Report to the Trustees of the Carse of Gowrie Turnpike Trust" (Perthshire), 1826:*

To the Trustees for the care of the road from Perth to the boundary of the County towards Dundee, Perth 12th. July 1826. Gentlemen Having directed the proceedings in the improvement of the Road under your care for one year I have the honor to report -- That there have been ten miles and a half of the line lifted and relaid -- Those parts of the Road that have not been broken up have been repaired through the winter and the drains cleared.

The expenditure upon the whole from the 1st. of July 1825 to 8 July 1826 has been ----------	£2783	17	10
of which the portion of outlay on the road not remade was ----------	321	11	4
Expense applicable to lifting 10½ miles ----	£2462	6	6
There will be required a farther expenditure in second coating the lifted Road of ---	242	10	-
Total expence of 10½ miles lifted ------	£2704	16	6

* Carse of Gowrie Turnpike Trust Minute Book, 1811-1830, County Clerk, Perth.

Being an average of £257 12/6 per mile which includes the Salary of the Sub Surveyor.

There are also in Witch Hill and Ballindean Quarries 1400 Bolls of Stone Quarried and broken in readiness for those parts of the Road not yet lifted -- included in the above sum expended. --

I am gratified by being able to shew you at the end of the year when more than half the Road has been remade that the expenditure has been kept considerably below the Estimate I had the honor to send in my Letter of September 1824 which was £308 per mile making a saving of £529 3 6, exclusive of the Stone in Depots.

I beg leave to recommend to you to provide Depots for Stones by the Roadside, to be made as they are required -- Those for the western end of the Road are most immediately required, and I beg to call your attention in the first place to the erection of Four Depots on each mile from the second mile from Perth to the Fourth mile being eight in number. I have the honor to be Gentlemen Your most obedient humble Servant (signed) Jno. Loudon McAdam --

(The Meeting having taken the Report under consideration expressed their satisfaction at the result as detailed by Mr. McAdam.)

APPENDIX H

WILL OF JOHN LOUDON McADAM *

8

20th

I John Loudon M'Adam formerly Surveyor of Roads resident at present in Richmond Surrey formerly of Falfield and County of Gloucester do hereby make my last will and testament—

Whereas I have been able to provide for my Children by giving them means of getting into business in and making thereby they are independent, and have made over to my daughter by Deed of Trust all my real estate in Scotland by which they are provided with means of subsistence—

I do hereby will and bequeath to my beloved and excellent wife Anne Charlotte all my estate and property real and personal, chattels and choses in action of any kind whatsoever and constituting as I hereby make and constitute my said wife Anne Charlotte M'Adam my sole executrix and administratrix of this my last will and testament, declaring, as I hereby do, all former Wills made by me void and null: this will written by my own hand is signed and sealed by me in the City of Bristol this twenty seventh day of April in the year of our Lord One Thousand Eight Hundred and Twenty Eight 27th April 1828

Signed sealed and published in presence of

Dennis Hall } In the office of
Dennis Hill Junr } Felix Farley Junr
} Office Bristol

John Loudon M'Adam

* P. C. C., 1847, JUNE 503, Principal Probate Register (Somerset House, London).

20th

15th May 1837

Jane Elizabeth Mc Adam Widow, the Relict of the Deceased, the said Executrix named in this Will was duly Sworn to the Truth and true Extent and Value of the Personal Estate of the said Deceased did on the 28th day of November 1836, and that the Goods Chattels and Credits do not amount in Value to the Sum of One thousand five hundred Pounds,

Sworn

Shepherd, Bidgood & Middleton
Solrs

W Curtis
Surr:

The Testator John Loudon Mc Adam was formerly of Richmond Terrace, Clifton, in the County of Gloucester and late of the Parish of Broadmarsh, in the County of Hertford, but at Moffat, in the County of Dumfries, in North Britain, General Surveyor of Roads

Proved at London the 19th June 1837 before the Worshipful William Calvert Doctor of Laws and Surrogate by the Oath of Jane Elizabeth Mc Adam Widow the Relict the sole Executrix to whom Administration was granted having been first sworn duly to administer

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