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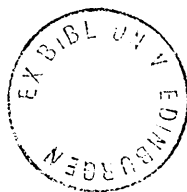
DOMESTIC MEDICINE IN EIGHTEENTH CENTURY SCOTLAND

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## CONTENTS

	Page
Acknowledgements	ii
Abstract	iii
Introduction	iv
Chapter I The Need for Domestic Medicine in Eighteenth Century Scotland	1
Chapter II Sources of Information Concerning Eighteenth Century Domestic Medicine	27
Chapter III Domestic Remedies for Scurvy in Eighteenth Century Scotland	37
Chapter IV Domestic Remedies for Smallpox in Eighteenth Century Scotland	63
Chapter V Domestic Remedies for Gravel and Stone in Eighteenth Century Scotland	101
Chapter VI Domestic Remedies for Hydrophobia in Eighteenth Century Scotland	136
Chapter VII Domestic Treatment of Wounds in Eighteenth Century Scotland	172
Chapter VIII Domestic Remedies for Stomach Pain and Colic in Eighteenth Century Scotland	196
Chapter IX Domestic Remedies for Headache in Eighteenth Century Scotland	222

Contents, contd.

	Page
Chapter X    Consumption in Eighteenth Century Scotland	241
Chapter XI    Arthritic Disease in Scotland in the Eighteenth Century	276
Chapter XII    Conclusions	308
Appendix.    John Moncrief of Tippermalloch: Charlatan or Philanthropist?	324

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ABSTRACT

Throughout the eighteenth century the majority of the population of Scotland were dependent on their own home remedies for treating illnesses. Early in the century doctors were scarce and the difficulties of travel plus the high fees they charged put their services beyond the reach of most people. Even later in the century when roads improved and an increasing number of medical graduates were trained, in rural Scotland domestic medicine was still the only form of treatment available to many.

The sources of eighteenth century domestic remedies were largely the same as the sources of orthodox medicine, namely traditional herbal recipes derived from the ancients, and from the mediaeval herbals. Such remedies were perpetuated by word of mouth, in ballads and songs, and in diaries, letters and kitchen books, as well as in printed books. The present thesis aims to illustrate the type of home remedy used, drawing mainly on primary sources, and using as examples various common eighteenth century ailments, such as scurvy, smallpox, consumption, etc.

Home remedies changed little in the course of the century, but orthodox medicine underwent considerable changes meanwhile, with the reform of the Pharmacopœia and the so-called "rationalisation" of medicine. The result was that home and orthodox remedies diverged and many traditional herbal recipes were discarded by the orthodox medical men, some of which may have been of real therapeutic value. Contrary to expectations, it has been found that home remedies were often less

complicated than their contemporary medical counterparts. An attempt has been made to identify botanically the numerous plants mentioned, and to give some indication, in the light of present pharmacological knowledge, of their possible therapeutic value. Future analyses may even show that some of the eighteenth century herbal remedies could prove of clinical value in the future.

## INTRODUCTION

"Medicine is mine  
What herbs and simples grow  
In field and forest,  
All their powers I know"

This is how Dryden, the seventeenth century English poet, expressed the long-held conviction of mankind that herbs could cure most illnesses. From earliest times it seems to have been a widely-held belief that where there is a disease, there must also be a cure. Perhaps this reflects a fundamental optimism in the human race. Such a conviction has often been bound up closely with religious belief. The eighteenth century botanist Dillenius claimed that

"It is certain that on account of the special providence of the creator, each region produces the particular plants needed to cure the sickness of the local population. It is due to Providence that the territory of Giessen contains a great number of lily-of-the-valley, wild thyme and Artemisia, because the local inhabitants suffer from frequent headaches, hysterical complaints and catarrh, for the treatment of which these plants are convenient. In northern and marshy countries, where scurvy is usual, there is an abundance of antiscorbutic plants like Ficaria, Menyanthes, Cardamine, water cress, Cochlearia." (1)

This may seem a rather simplistic view of the subject: - indeed, one could interpret the data to mean that people use whatever herbs are locally available in an attempt to cure their illnesses. Even in our

present century in Scotland there are still plenty of local herbal remedies in use, such as thrift boiled in milk for chest complaints (used in Orkney, (2) ) and coltsfoot, Tussilago, ("Dishyluggs" in Lanarkshire), which is smoked as a cure for bronchitis (3).

Innumerable books about herbs have appeared, among the earliest being Theophrastus' History of Plants, written in the third century BC. The first printed herbal was by Bartholomew the Anglican, and was published in 1470. It was followed by numerous fascinating and beautiful herbals, very well reviewed and described by modern authors such as Rhodes (4) and Arber (5).

There is an extensive literature in existence concerning the early herbals. However, little appears to have been published concerning the actual domestic use of herbs in rural Scotland in the past, when medical assistance was available only to the few and most ailments were treated with home remedies. Even a knowledge of the herbals was a privilege of the relatively rich and well-educated.

Until the rationalisation of medicine began in the eighteenth century in Scotland, there was no clear distinction between orthodox and home remedies: - layman and physician alike used mainly herbal medicines, and the printed herbals were source-books for both. During the eighteenth century, however, there was an increasing tendency for the medical profession to scorn the folk remedies of the past, and herbals were gradually replaced by relatively scientific pharmacopoeias (6). The fact that most medical prescriptions were derived originally from the old herbals is sometimes overlooked. Indeed, even to-day a large proportion of western medicines are plant-derived, and many of the source plants have been used for centuries. In 1979, 51% of

registered British drugs were plant-derived, and a similar figure applied for other European countries (7).

The eighteenth century in Scotland is of special interest to medical historians for many reasons. It marked the transition from mediaeval to modern medicine. It is for this reason that it is of particular interest to examine the domestic medicine belonging to this period, which represents both traditional and orthodox medicine derived from earlier centuries, and from which in turn some of the orthodox medicine of succeeding centuries was derived.

The fact that herbal medicine survived the period of "rationalisation", albeit as a medical side-line, could imply several things; that, particularly in rural situations, traditions die hard; that orthodox medicine is never entirely and wholly satisfactory, and that herbal medicine still has something of value to offer. Perhaps there is some truth in all these assertions. The importance of traditional medicine for the third world is now being officially recognised, by bodies such as ACAST (United Nations Advisory Committee on the Application of Science and Technology for Development). It has been suggested that instead of attempting to replace traditional medicine abruptly by western orthodox medicine, the former should be evaluated, and the best of it ploughed back, as it were, into present-day medicine (See Chapter XII, page 310)

Perhaps it is unfortunate that in Scotland in the eighteenth century so many traditional remedies were abruptly and officially discarded. There is an historical interest in examining eighteenth century domestic medicine: there may also be some medical value. It could even be true that among the web of superstition, tradition and psychotherapy surrounding herbal medicine, in this and other countries, there still remain some some as yet unanalysed herbs which could in the future prove to be of real medicinal value.

The present thesis aims to assess the role of domestic herbal medicine in eighteenth century Scotland during the period of transition from herbals to scientific medicine. Using as examples a few common eighteenth century ailments, an attempt has been made to discover what plants were actually used in home remedies during the eighteenth century in Scotland.

## REFERENCES.

- (1) Dillenius, quoted by  
Rousseau, Jacques in *Essays in Biohistory*. International Association for Plant Taxonomy, Dec. 1970, Utrecht, Netherlands. page 195, ff.
- (2) Guthrie, D.J. *Plants as Remedies; the debt of Medicine to Botany*. *Trans. Bot. Soc. Ed.* 1961, Vol. 39, Part II
- (3) Personal communication
- (4) Rhodes, E.S. *The Old English Herbals*. Minerva, London, 1974.
- (5) Arber, A. *Herbals: Their Origin and Evolution*, 1939.
- (6) Rowe, Victor Laurie *From Herbal to Pharmacopoeia*. Wellcome Prize in History of Medicine, 1971.
- (7) Bruhn, J.G. *J. Ethnopharmacol.*, 1979, Vol. 1 (2).

CHAPTER I

The Need for Domestic Medicine in Eighteenth Century Scotland

It will be easier to appreciate the importance of domestic medicine in eighteenth century Scotland if we consider for a while the social conditions at that time. Then, as now, life was very different in the towns and in the country. If one lived in one of the great centres of medical learning, such as Aberdeen, Glasgow or Edinburgh, there was some hope of receiving official medical attention when one was ill. But outside these city boundaries the picture was very different, and the help available depended largely on one's status.

For the gentry, there were four broad categories of medical help available: firstly, qualified members of the medical profession, both physicians and surgeons; secondly apothecaries, some of whom, at least early in the century, were willing to prescribe medicine as well as sell it; thirdly, medical books of the period which were available to the gentry; and lastly, traditional home remedies which formed a part of the kitchen books of most large estates.

For the rest of the literate classes, this list was reduced to three. On account of its expense, a visit from a member of the medical profession was available only to the few, as we shall see later in this chapter.

The illiterate city dweller, too poor to afford medical consultation, had to rely on apothecaries and home remedies. After the foundation of hospitals for the sick poor, such as the Royal Infirmary of Edinburgh, founded in 1729, some of the cities' poor received in addition hospital treatment, as did a few from outside the city boundaries.

The illiterate country dweller had to rely entirely on his own resources, namely on traditional home remedies.

Thus the common factor in the medical treatment of all classes in eighteenth century Scotland is the category of home remedies. The scarcity of doctors and the high fees they charged meant that for the majority of the population, domestic medicine was not just one aspect of medicine, it was the only treatment available.

In the preface to his Compleat Herbal, published in London in 1694, John Pechey tells us "There are not learned physicians enough to attend on the sick in these populous kingdoms" (1). The Aberdeenshire Poll Book records an extreme example of this. In the early part of the eighteenth century, we are told that "for the matter of fifty miles along the main route northward from Aberdeen only a single individual with the technical qualification of a doctor of medicine presents himself" (2).

At the beginning of the eighteenth century, roads in Scotland were mere dust tracks, "tracks of mire in wet weather and marshes in winter" as Graham describes them. Although in 1719 an Act was passed commanding able-bodied men to contribute six days labour a year to improvement of roads, "this act was quietly ignored" and roads throughout Scotland remained largely impassable to carts until after the Turnpike Road Act of 1751 (3). Referring to eighteenth century Scotland, Rogers (4) tells us that

"Travellers of all ranks were regarded with veneration in those times, when locomotion was attended with much cost and many difficulties, and when few even of the yeomanry left their native districts unless

circumstances of unusual exigency compelled them. In 1763 one stage-coach proceeded monthly between Edinburgh and London, and the journey occupied between fifteen and eighteen days".

It needed an intrepid traveller, such as Dr Goodsir of Wemyss in Fife, to overcome the hazards of eighteenth century roads, and regularly visit all his patients on horseback. Lonsdale describes this gentleman "as itinerant with his physic as the ancient peripatetic with his philosophy" (5). Even if they were willing, like Goodsir, to travel for days on end, there were insufficient doctors to serve the country population. (6).

There was another serious obstacle in the way of receiving orthodox medical attention. Doctors charged high fees. The charge for a visit varied, but seems to have been at least one guinea. In Lady Grisell Baillie's account book (7) we find the following entry for July 1710: "To Docter Abernethy when Rachell had a fever £7 - 10 - 6" and later, in 1717 "Doctor Cheine for Rachy £1 - 1 - 6". James Harvie died in Lanarkshire in 1781. In the account books for that year (8) we find

October 1781

By Dr Weir for attendancing James	£ 5 - 0 - 0
By Dr Gibson	10 - 0 - 0
By Dr Todd	2 - 0 - 0
By Dr Mackinlay	3 - 0 - 0

To put these charges in perspective, one needs to look at the cost of living at this time. The annual income of a farm labourer or a domestic servant was of the order of two to three guineas, plus bed and board (9). Here are some examples of wages, taken from the Harvie account books:

John Hamilton, "coalier" earned 1/6 daily in 1771.

Henry Gibsone in the same year worked for 18 days at 1/6 per day, whereas Lizy Gibsone earned a mere 6d per day. A "Masson" worked for eleven days at 1/- per day, while one day of threshing in 1766 earned 5d. (10).

Wages varied considerably from one locality to another. Pennant in his Tour in Scotland (1769) describes the wages of a highland labourer as 50/- a year and two pecks of oatmeal a week (11). Of course casual labour of this type would not be available throughout the year, so it would seem a reasonable estimate of a year's wages to put it around four or five pounds. Country labourers with an annual income of five pounds were highly unlikely to pay two or three guineas for a visit from a physician.

By contrast, the cost of medicine itself was not exorbitant. In the Ochtertyre House Book we find the following entries (12) :

Monday 16th January 1738	for a drop of safron	0 - 0 - 4
April 1738	for a bottle of elixir salutas	0 - 0 - 3.

The following extracts are taken from the accounts of Andrew Robertson, surgeon (13):

The Lady Wormeston Senr. to Andrew Robertson (surgeon)

May 8th 1746	Melilot plasters	0 - 0 - 6
Jan 16th 1747	Liquid laudanum	0 - 0 - 9
1748	spirit of hartshorn	0 - 0 - 2

John Lindsay Esq., of Wormeston to Andrew Robertson

Feb 1764	Disc of Rhubarb	0 - 0 - 6
	Box of Balsamick Pills	0 - 2 - 0

Medicines from Thomas and William Hamilton, for James Harvie during

his final illness cost ten shillings and eightpence all together, a small fraction of the twenty pounds spent on a visit from the four physicians referred to above. (14).

Although the raw materials of many eighteenth century medicines were relatively inexpensive, made-up medicines were quite costly. For example, Dunbar quotes the following charges of Kenneth Mackenzie, "Chyr Aporie" in Elgin, 1719 - 1720, to the Laird of Thunderton:

Cephalick powder, 2s Scots; vomitory 10s; gargarism 2-16s (15)  
The price of such compounded medicines ruled them out for the majority of the population. There was therefore a strong financial incentive for the thrifty housewife to make up her own store of medicines; this is what seems to have happened in many instances.

So common was it for the housewife to grow herbs for medicinal use that John Pechey (Royal College of Physicians, London), in the preface to his Compleat Herbal (1694) wrote:

"I have only described such plants as grow in England and are not commonly known, for I thought it needless to trouble the reader with the description of those that every woman knows or keeps in her garden". "I hope", he adds, "that this treatise may be serviceable to families in the country that are far distant from physicians" (16).

Recipes for making medicines are found among the family papers of numerous eighteenth-century Scots households, often side by side with culinary recipes. Frequently, such recipes have been written by the lady of the house, and sometimes there are notes about obtaining the necessary ingredients, which indicate that the recipes were actually used, and not

just collected.

For example, among the eighteenth century Leven and Melville papers in the Scottish Records Office, Edinburgh (17), there is a recipe for obstructions of the liver and spleen. It includes, among other things,

"flowers of burrage, buglosse, marigolds, violets, endive of each a handful"

and a footnote adds that

"the flowers are to be had in the apothecaries dry all the year".

Many of the ingredients of herbal remedies could be found growing wild; some others were deliberately grown in kitchen gardens. Lady Catherine Stewart, writing about 1730, gives detailed instructions for making up Balaggan's salve "for curing wounds, sprains, ulcers, sores, swellings":

"Take the herbs following in the month of May when they begin to flower, Broad leaved plantain, long leaved plantain, Mallows, Niplewort, Clowns all Heal, Avens and the Heart of Burdock of each two pounds". (18)

All these herbs could be found growing wild, though the large amounts listed suggest that they may have had to be cultivated for the purpose.

'Sir' John Hill, in his Family Herbal published in the mid-eighteenth century, gives detailed instructions for collection of herbs and composition of medicines. The object of his book is, he states,

"to inform those who live in the country...of the virtues of those plants which grow wild about them; that they may be able to supply this necessary assistance in places where apothecaries are not at hand; and that they may be able also to do it without putting themselves to the expense of medicines of price, when the common herbs that may be had for the gathering will answer the same purpose" (19).

Education in herbal medicine was not confined to students of medicine, as this extract from the Edinburgh Privy Council Records for February 1693 shows:

"at this date, the Privy Council, on Sutherland's petition" (i.e. James Sutherland, keeper of the botanic garden near Trinity College Church) "took into consideration his losses, his inadequate salary, and the good service he was rendering 'whereby not only the young physicians, apothecaries, and chirurgeons, but also the nobility and gentry, are taught the knowledge of the herbs'". (20).

The first reaction to illness, even among the wealthier classes, was not necessarily to call a physician. Do-it-yourself medicine was completely taken for granted among all classes of society, as the following examples show.

Christian Kilpatrick, wife of Sir John Clerk of Penicuik, wrote in 1699

"Jamie has taken the smallpox.....I have sent in Sandy for some saffron and marigold for I have none. I give him marigold posset to drink, . . . I will give him some saffron inwardly when it comes in a spoonful of claret wine and bind some of it about his throat to prevent the soreness at it" (21).

Mrs Campbell, of the house of Breadalbane, wrote to Lady Breadalbane in 1778:

"As my dear boy is the most interesting subject to me, I shall begin with him....when the medicine of Dr Cullen failed, I shall give him garlic in brandy. Take a pint bottle and fill it with garlic till near the cork; pour on as much brandy as the bottle will hold, and let it stand for three or four days. Then early in the morning, give him a dram of it in a dessert glass. I shall engage it will free

him of worms, and it is attended with no inconveniences, but his breath will perfume the air" (22).

Even though doctors may have wished it otherwise, in the eighteenth century, medicine was not regarded as the prerogative of the medical profession. Home remedies and discussion of the best treatment, and even of the causes of disease, seem to have been frequent topics of discussion among the educated non-medical classes. For example, Sir John Clerk in 1740, refers to Haemorrhoids;

"a disease commonly called the piles ....they are more troublesome than dangerous, but very painful I was never troubled with them but the present Lord A.P. of the Session has been in great distress of them and after a salivation and other medicines failed found only relief in using small bier made chiefly of juniper berries I apprehend in the mean time that a decoction of juniper berries or Thea of them wou'd be far better for the Ale is fermented and I do not believe that any fermented liquor can be of so much benefite as plain juniper Thea or water, drink with a little Milck and Sugar Wine spirits and all malt Liquors are mischevious" (23).

Among Sir John Clerk's observations on medical matters, there are various comments on the Jesuit's bark, (Cinchona sp., the source of quinine), much used in the treatment of fevers. He evidently regarded it as something of a panacea;

"for a Gangren, cancer or Mortification make use of the Jesuit's bark once or twice a day. the tincture of it is the best way of taking... I believe it may be of use in the small pox" and elsewhere

"the Jesuit's bark has an excellent quality in preventing mortifications or gangrens the Legs are very liable to Mortifications especially by Wounds on the Chinbones" (24)

However, even Sir John Clerk recognised that physicians have their uses;

"a phisitian ought to be consulted in the manner of taking the Bark - one of the greatest gifts of God to mankind" (25).

A certain degree of cynicism regarding the medical profession undoubtedly existed then as now, as the ballad of Lord Livingstone, current in the eighteenth century, shows:

O live, O live, Lord Livingston  
The space o' ae half hour  
There's nae a leech in Edinbro town  
But I'll bring to your door

Awa wi your leeches, Lady, he said  
O' them I'll be the waur  
There's nae a leech in Edinbro town  
That can strong death debar. (26)

More serious than this general scepticism, there also existed a positive antagonism between the medical profession and the "do-it-yourself" makers of home remedies. This antagonism existed on both sides. John Wesley in his book "Primitive Physick" says of physicians

"Those who understood only how to restore the sick to health they branded with the name of empirics"

He further claims that they wish to keep "the bulk of mankind at a distance that they might not pry into the mysteries of the profession" (27). This was not an entirely unfair comment. In the log book of an anonymous surgeon-apothecary working in Dalkeith in the 1730's we find the following comment on the practice of the author's friend, a Dr Stevenson:

"Another very good method he uses is to insist not entirely on any one prescription but vary them often as you see the least occasion. This pleases besides both the Surgeon and Patient and makes appear

the use of the physician when possible otherwise he might have been thought to have made a useless visit for the ignorant when they see Receipt, written they always imagin something more solemn and useful in it than if prescrib'd by word of mouth. Thus the Dr used to vary his purging infusions almost every day and likewise his Cataplasms for the throat" (28).

One could cite numerous instances of physicians worrying about their image, striving to appear learned and unlike the mountebanks who undoubtedly existed in large numbers during the eighteenth century.

Sir John Clerk wrote in 1740

"Nothing has done more mischief to the knowledge of medicine than the fear physicians have been in of being reputed quack doctors - for this reasone they have abandoned all specificks as meer Quackery and confined themselves to Galen and Hippocrates. But the age we live in and the force of Truth and demonstration has now made a considerable change in these absurd notions. A sagacious head making a right application of Mercury, Opium, Soap, Vinegar, the ....(?) and vomitory powders will get the better of any desease when there is anything remaining of a Constitution to work on but in old Age or a crazed diseased body full of Humurs and roting as it were alive, it is in vain for a physitian to attempt anything except to mitigate pain and give an easy passage.....to another world ". (29)

The anonymmous surgeon-apothecary in Dalkeith, to whom we have already referred above, was evidently aware of the danger of caring too much about criticism from the public:

"It is certainly a very wrong thing in a Phys. to have any sort of regard to what people say and often leads us into wrong practise... One ought always to pursue their point or general aim and design steadily sans etre ebranle and if one has only in his view the Intention of doing good why should he be shaken from it by any one's Importunity" (30)

The direct rivalry that sometimes existed between orthodox physicians and exponents of home remedies is several times hinted at in

this same fascinating manuscript. Discussing the case of Alexander Dalziel, a boy of twelve years old with epilepsy, the author remarks

"I hear'd from a private hand that his mother had without our knowledge given him some Venice treacle at night att the suggestion of an old woman and perhaps somethings else we know not of"

Another of his patients, a Mrs Jackson "had been bled by an ordinary Gardner" before the physician was summoned.

Evidently, though, this particular doctor was willing to make concessions to popular medicine. In the case of Mrs Turner, in February 1735, suffering from "fluxus mensium immodicus" he tells us

"I advised to use a single glass of claret thro' the day and to begin with a scruple of Rhubarb made into a bolus in the morning. This Rhubarb hardly purged her any at all. I then advised to use the express'd juice of nettles which were just now in season (her courses had return'd thrice upon her since the beginning of January) also the rind of seven bitter oranges boil'd among....(?) of water knowing that she disliked all shop medecines." (30).

Incidentally, nettles are a rich source of iron, and would undoubtedly have done some good in a patient suffering from excessive bleeding.

The limited availability and inadequacy of orthodox medical services in eighteenth century was clearly recognised by the government. They were, for instance, prepared to spend the grand sum of 5,000 pounds to Mrs Stephen for her remedy against the stone, which was subsequently published in newspapers throughout Britain.(31). Contemporary newspapers quite often published advice of a medical nature. For instance, the Edinburgh Evening Courant for April 11, 1738, printed the following information

"For the benefit of the Publick, and least any accident should happen at this critical Time, when they are busy killing all the Dogs in Town, we shall present our readers with the three following Receipts

for the Cure of the Bite of a mad Dog; the first by the celebrated Boerhaave, the second by the Eminent Dr Mead, and the Third by an French Physician, who says it is infallible, and that he has seen it often tried in France, even on Persons condemn'd to be smother'd between Feather Beds, and never known to fail of success" (32)

We shall return later (Page 139) to the actual remedies cited. Similarly, a newspaper cutting dated 1739 provided

"For the good of the Publick A cure for the Dropsy" (33).

Of course, such information published in newspapers would only reach directly the small proportion of the population who could read, and could afford newspapers. The Edinburgh Evening Courant cost  $1\frac{1}{2}$ d in 1725, plus  $\frac{1}{2}$ d stamp duty (34). The Caledonian Mercury for 1720 cost  $1\frac{1}{2}$ d, three times weekly (35). The Scots Magazine appeared monthly, and cost 6d in 1739 (35). Only the relatively wealthy could afford these newspapers ( a casual labourer, as we have seen above, earned about 5d per day), but presumably the information they contained would be passed on by word of mouth to others.

It is indicative of the inadequacy of rural medical services at the time, that in Aberdeenshire the Kirk Session undertook the expenses of training a midwife for the parish (36) while theological students, towards the end of the century, were taught the art of inoculation for smallpox (37).

Throughout much of Scotland, even those wealthy enough to afford a consultation could not always obtain the help of a physician. Even for the landed gentry, a visit from a physician was a relatively rare event. All minor illnesses, and some which we would today regard as major, were treated at home, by the lady of the house, with advice and help from friends, apothecaries and servants. The mother of Adam Drummond (an eighteenth century surgeon-apothecary), lived in Perthshire. It is recorded how she successfully nursed eleven children through smallpox,

while pregnant with the twelfth. "By skill, nursing, prayer and some miracle, they all survived" (38).

The vast majority of the population were totally dependent on their own resources in times of illness. Possibly many had a fatalistic approach to illness; one went to bed and hoped for the best. It is questionable whether the majority of country folk even expected to have their illnesses treated. It is almost impossible to assess the extent to which herbal remedies were actually used. One doubts whether most people belonging to the poorer classes had the time, opportunity or energy to use anything save the simplest remedies. Describing the typical highland hamlet in the eighteenth century, William Alexander tells us:

"About the place we find here and there an exceedingly rustic sort of garden. In these 'yards'...may be found, besides certain useful vegetables, as 'kail', green or red, and 'syboes', a few old fashioned herbs and flowers. Some clusters of rich-scented honeysuckle, a plant of hardy southernwood, peppermint, and wormwood; with mayhap, also a slip or two of 'smeird docken', the sovereign virtues of whose smooth green leaves, in respect of sore fingers or broken shins, commend it to careful consideration." (39).

Southernwood, Artemisia vulgaris, was a magical herb (see page 21), used for a variety of ailments from weariness to consumption. Peppermint, Mentha piperita, was used for wind and gripes (and still is). Wormwood, Artemisia absinthium, as its name suggests, was used to expel worms, also for jaundice, dropsy and obstructions (40). 'Smeird docken' probably refers to Rumex obtusifolius, the dock whose leaves we still rub on to nettle stings. This was probably the sum total of many a cottar's medicine chest!

Most people in rural areas, if they received any medical help at all when they were ill, were entirely dependent on local expertise. Some communities had their local 'wise woman' or 'wise man'. One such 'wise-



Plate I. Janet Bell, 'apothecary', Elsrickle, Lanarkshire. Died 1880.

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woman died in Elsrickle, Lanarkshire, as recently as 1880. Her name was Janet Bell, and she described herself as an apothecary. (Plate 1). Local residents describe her family as 'airy-fairy', but it is remarkably hard to find out anything further about her. It is hardly surprising then that as we go back further in time, to the eighteenth century, it becomes increasingly difficult to gather information about local herbalists.

Probably in every area there was someone who acted as unofficial practitioner. In some instances this was the local minister. George Ridpath, minister of Stichel from 1755 to 1761, was clearly from his diaries a *medecin manque*, and as interested in his parishioner's ailments as he was in their spiritual welfare (41). The "famous John Moncrief of Tippermalloch" is another example of a minister who became well-known for his medical recipes (42). In some cases, a particular family prided themselves on their medical knowledge, and even though not medically qualified, the eighteenth century country gentleman generally included some study of medicine in his private curriculum (43). It was thus that the few 'do-it-yourself' contemporary medical books became available to the general populace, even though many were unable to read, and even if literate, could not afford books.

For the details of the practice of the local wise woman/man, we have of course very little by way of written records. Such characters as the so-called "Prophet of Bethelnie" (44), have come down to us, doubtless heavily embroidered with the passage of time. But of 'case notes', as it were, we have regrettably few. Most transactions would not involve large sums of money, and certainly no written record. If the travelling pack merchant or 'chapman' were ill on his travels he might well be directed to the local 'medical' expert, and would probably barter goods for advice and medicine. If a girl found herself unwantedly

pregnant, or conversely, failing to become pregnant, she would likewise visit the local herbalist, but probably again no money would change hands. The girl's mother might provide a couple of hens by way of payment.

Very few people in fact handled any significant amount of money in the course of their lifetimes in rural eighteenth century Scotland (45, 46). Rents and wages were both low, and payment was often in kind. The minister of a highland parish tells us that by an "immemorial assessment", the smiths in his region were paid in meal by the farmers, they being in some cases also entitled to the "head of every cow slaughtered in the parish" (47). Only the relatively wealthy and literate kept written records of business and other transactions.

Such records as we do have of the practice of folk medicine in eighteenth century Scotland are therefore of particular interest. One such illuminating contemporary account has come down to us. It concerns a local practitioner who became known as the "Prophet of Bethelnie". (Plate 2). Adam Donald was born in 1703, the son of a cottar and his wife. An account of him was published in 1790, ten years after his death, by Dr William Anderson (48). Anderson published his description in "The Bee", a journal which he himself founded, and which dealt mainly with social and agricultural matters. Anderson had himself studied chemistry under William Cullen (Professor of Chemistry and Medicine at Glasgow 1751-1755), and had then taken to the law, receiving the Ll.D. from Aberdeen in 1780. He wrote prolifically on a number of subjects. His account of Adam Donald, whilst extremely cynical and somewhat unkind, at least has the virtue of being more or less contemporary; we can presumably trust the accuracy of his facts, if not of his opinions.

The Prophet of Bethelnie, Adam Donald, was born the son of a cottar and his wife, in Bethelnie, twenty miles north of Aberdeen. From birth he was sallow and misshapen, so that local legend suggested that he was a changeling, substituted by the fairies. He grew up to be an awkward, gangling, goggle-eyed man, with little ability for the hard physical labour of his friends and neighbours. Dr Anderson tells us that Adam

"remarked with what a superstitious veneration the ignorant people around him contemplated the uncouth figure he inherited from nature, and shrewdly availed himself of this propensity for obtaining a subsistence through life". He "affected an uncommon reservedness of manner; pretended to be extremely studious, spoke little, and what he said was uttered in half sentences with awkward gesticulations and an uncouth tone of voice, to excite consternation and elude detection.....and though he could scarcely read the English language, yet he carefully picked up books in all languages that fell in his way.....He delighted chiefly in large books that contained plates of any sort; and Gerard's large Herbal, with wooden cuts, might be said to be his constant vade mecum, which was displayed with much parade on the table, or the shelf, among other books of a like portly appearance, to all his visitors". (49)

Adam Donald gained a reputation for finding lost things,

"but it was not as a necromancer only that Adam Donald was consulted. He also acted as a physician. He was chiefly consulted in cases of lingering disorders, that were supposed to owe their origin to witchcraft, or some supernatural agency of this sort.....In these cases, he invariably prescribed the application of certain simple unguents of his own manufacture, to particular parts of the body, accompanied with particular ceremonies, which he described with all the minuteness he could; employing the most learned terms he could pick up to denote the most common things; so that, not being understood, the person who consulted him, invariably concluded, when the cure did not succeed, that they had failed in some essential particular; and when the cure was effected he obtained full credit. Thus did his fame



Plate II. Adam Donald, the 'prophet of Bethelnie', Aberdeenshire,

(1703-1780)

spread to the distance of thirty miles around him, in every direction; so that for a great many years of his life there was never a Sunday in his house was not crowded with visitors of various sorts, who came to consult him either as necromancer, or physician. His fees were very moderate, never exceeding sixpence when no medicines were given; and I believe a shilling was the very highest he ever obtained".(50)

The reader might like to know that Adam married one of the bonniest women in the neighbourhood, and, we hope, lived happily ever after! (51). Anderson's woodcut illustration of Adam is reproduced in Plate 2.

It would be of great interest to know the recipes that Adam Donald actually used, but he left no records; very likely he kept none. Presumably his remedies would have been based on those in Gerard's herbal, modified by the local availability of the various herbs.

In order to view Adam Donald through eighteenth century eyes one must appreciate that medicine as a scientific discipline was still in its infancy, and was available only to the few. There was no abrupt transition from the era of the great herbals to that of the Pharmacopoeias. For centuries, magic, medicine and herbs had been inextricably bound up together. Herbs were an integral part of daily homely life. They played their part in living, loving, giving birth, contraception, abortion, in recipes for meat and drink, for love potions and cosmetics, for scenting the house and linen, and for anointing the dead, as well as for preventing and curing illnesses.

The frequency with which herbs are mentioned in the ancient Scottish ballads shows how basic a part of cult, superstition and medical treatment they were. It is difficult to date the origin of a particular ballad, since, by definition, ballads are perpetuated by word of mouth. However, here are a few instances of ballads, which, though committed

to writing in the early nineteenth century, were certainly current in the eighteenth, and earlier.

The story of the "Queen's Maries" is well-known. Mary, Queen of Scots had four ladies-in-waiting, all called Mary. One of them was found to be pregnant by the King: -

The Queen's Marie

Marie Hamilton's to the kirk gane,  
Wi' ribbons in her hair;  
The King thought mair o' Marie Hamilton  
Than ony that were there

She hadna been about the King's court  
A month but barely three  
Till frae the King's court Marie Hamilton,  
Marie Hamilton dustna be.

The King is to the Abbey gane,  
To Pu' the Abbey tree,  
To scale the babe frae Marie's heart;  
But the thing it wadna be. (52)

In another version of the same sad tale, recorded in Child's Ballads, from an 1825 recitation, Marie Hamilton herself tries to get rid of the baby:

She's gane to the garden gay  
To pu' of the savin tree  
But for a' that she could say or do  
The babie it would not die. (53)

The savin tree is Juniperus sabinus, L., of which John Pechey wrote in 1694:

"It forces the courses and causes Miscarriage: Upon which Account they are too well known, and too much used by wenchess.....Take of the Leaves of dried Savine, of the Roots of Round Birth-wort,

of Troches, of Myrrh, of Castor, of each One Dram; of Cinnamon half a Dram, of Saffron one Scruple; mingle them, make a powder: Give a Dram in Savin-water. This is used to expel a dead child" (54).

The use of this herb as an abortive goes back to the time of Pliny, who claims that it "draweth dead infants out of the body". (55). An allied species, Juniperus communis, is known in Somerset by the name of Bastard Killer, a name that speaks for itself. (56). Oil of juniper appears in the British Pharmaceutical Codex for 1949, where it is listed as a carminative (i.e. expels flatulence) (57). It does not, however, appear in the British National Formulary for 1975. It is listed in modern herbals, such as Potter's New Cyclopaedia of Botanical Drugs, where we are told that it excites menstrual discharge, can be used against worms and as a diuretic "but is rarely used now internally because of possible poisonous side-effects" (58).

Here, then, we have an example of a herb whose use can be traced from the time of Pliny, through the reign of Mary Queen of Scots, to the present day. Unfortunately for Marie Hamilton, the juniper failed to make her abort and the Queen subsequently had her executed in the Tolbooth.

It has already been pointed out that written evidence for the rural practice of folk medicine is extremely sparse. One example occurs in the records of the Presbytery of Peebles. (59). It concerns the case, brought before the Kirk Session, of Isobel F., accused of poisoning her husband by doctoring his ale. This entry in the records is dated Jan, 28, 1702:

"She denied everything, except that she sent to the gardener's wife at Linton" (i.e. present West Linton) "for some herbs, viz 'badmonnie' and 'fumitory' and thereafter implored her aunt, Mary F., to go to Ingistone for the herbs or any other place where she

may get them, and that she brought them from Dolphinton. But she had no bad dealing in seeking them, but was advised that they were proper for her present condition" (she was pregnant)... "Will Gray his wife said that Isobel sent to her for 'badmonnie', but she said she had it not".

The case against Isobel was considered unproven.

Badmonnie is Meum athamanticum, of which Pechey wrote in 1694 "It expels wind, and forces Urine and the Courses....Those that have vowed Chastity must not use it, for it is a great Provocative to Venery" (60).

A modern author (61) tells us that this plant is today used in homeopathy to treat, among other conditions, amenorrhoea.

Herbs were inextricably bound up with magic and superstition, as well as medicine, as in the ballad of the Elfin Knight (1810 edition):

Can you make me a cambrick shirt  
Parsley, sage, rosemary and thyme  
Without any seam or needlework  
And you shall be a true lover of mine (62)

In the following ballad, a mermaid advises a young lover how to cure his lady of consumption:

Wad ye let the bonny may die in your hand  
And the mugwort flowering in the land? (63)

Mugwort is Artemisia vulgaris L., also called southernwood, and used for a wide variety of magical and medical conditions.

In the beautiful ballad of The Gardener, taken from the Kinloch Manuscripts, we again find a mixture of herbs and magic:

The lily white shall be your smock  
Becomes your body neat  
And your head shall be decked with jelly-flower  
And the primrose in your breast  
Your gown shall be o the sweet-william  
Your coat o camovine

And your apron o the salads neat  
That taste baith sweet and fine  
Your stockings shall be o the broad kail-blade  
That is both broad and long  
And narrow, narrow at the coot,  
And broad, broad at the brawn  
  
Your gloves shall be the marygold  
All glittering to your hand  
Well spread oer wi the blue blaewort  
That grows in corn-land. (64)

Traces of magical herbal lore often still surrounded the collection of herbs for medicinal purposes. The actual gathering of herbs was often ritualistic, but some at least of the ritual was based on sound sense. Many herbal recipes recommend gathering the herbs in May and June; on the face of it, a purely superstitious practise. However, this suggestion is a sensible one since in Scotland, the plants will be growing and synthesising alkaloids etc. maximally at this time of the year. This fact was recognised by the anonymous author of 'A Compendious Body of Physick', 1747. He tells us that "herbs are more medicinal in spring than any other time of the year". (65).

Herbal lore is still very much alive in country districts in Scotland. Alexander Carmichael in his 'Carmina Gadelica' relates a story told to him by Catherine MacNeil of Barra, in 1902, showing how fairy flax under the soles of the feet helps delivery! "The child", we are told "came into the world without toil or trouble to its mother" (66).

It is, then, against a background of herbs, magic and medicine, that we must consider the home remedies used in the eighteenth century by both uneducated and educated people in Scotland.

REFERENCES.

- (1) Pechey, John Compleat Herbal of Physical Plants. London, 1694.
- (2) Notes and Sketches Illustrative of Northern Rural Life in the Eighteenth Century by the author of Johnny Gibb of Gushetneuk. Edinburgh, Douglas, 1877.  
(Author was William Alexander, LLD)
- (3) Graham, Henry G. The Social Life of Scotland in the Eighteenth Century. Adam and Charles Black, Edinburgh, 1909. Page 39.
- (4) Rogers, Charles Scotland Social and Domestic. Charles Griffin & Co. 1869. Page 76.
- (5) Comrie, John D. History of Scottish Medicine, 2 vols. Wellcome Historical Museum, London, 1932. Page 437.
- (6) Ibid., page 422.
- (7) Household Book of Lady Grissell Baillie 1692-1733. Edited by Robert Scott-Moncrieff, WS. University Press, Edinburgh. Printed by Constable for the Scottish History Society. 1911.
- (8) Account Books of William Harvie of Brownlee (unpublished, privately owned).
- (9) Op.cit. (7)
- (10) Op.cit. (8)
- (11) Pennant, Thomas A Tour In Scotland. Second Edition, London, 1772.
- (12) Ochtertyre House Book of Accomps 1737-1739. Ed. James Colville. University Press, Edinburgh. Printed by Constable for the Scottish History Society, 1907.
- (13) "Chemist's Accounts", Scottish Records Office, Edinburgh. SRO GD 203.

- (14) Op.cit. (8)
- (15) Dunbar, *Social Life* 1), 21, quoted by Graham, op.cit. (3)
- (16) Op.cit. (1).
- (17) *Leven & Melville Papers*. Scottish Records Office, Edinburgh.  
SRO GD 26/6/206.
- (18) *Broughton Cally Papers*. Scottish Records Office, Edinburgh.  
SRO GD 10/911.
- (19) Drummond, C.G. *Pharmaceutical 'opposition' in the Eighteenth Century*. *Pharm. J.* 1964, 193, pages 43-47.
- (20) *Privy Council Records*, quoted in  
Chambers, Robert *Domestic Annals of Scotland from the Revolution to the Rebellion of 1745*. Third edition, 1874. Vol III.  
Chambers, Edinburgh, 1874.
- (21) *Clerk of Penicuik Papers*. Scottish Records Office, Edinburgh.  
SRO GD 18/5219. Quoted in  
*Childhood in Seventeenth Century Scotland*, by Rosalind K. Marshall.  
Trustees of the National Gallery of Scotland, Edinburgh, 1976.
- (22) Quoted in  
Lohead, M. *The Scots Household in the Eighteenth Century*. Moray  
Press, Edinburgh, 1948. Page 338.
- (23) *Clerk of Penicuik Papers*, Scottish Records Office, Edinburgh.  
SRO GD 18/2142.
- (24) Ibid.
- (25) Ibid.
- (26) *Buchan Ballads of the North of Scotland* II, 39, quoted in  
*English and Scottish Popular Ballads*, Ed. F.J. Child, 8 vols.  
Dover Publications, N.Y. Vol IV, page 231.

- (27) Quoted in  
Wesley Hill, A. John Wesley among the Physicians. London, Epworth  
Press, 1958.
- (28) Manuscript Dept., National Library of Scotland, Edinburgh. MS 3774.
- (29) Op.cit. (23)
- (30) Op. cit. (28)
- (31) Viseltear, A.J. Joanna Stephens and the Eighteenth Century  
Lithontriptics. Bull.Hist.Med. 42, 1968, pages 191-220.
- (32) Edinburgh Evening Courant, April 11, 1738.
- (33) Newspaper cutting among Clerk of Penicuik Papers, Scottish Records  
Office, Edinburgh, SRO GD 18/2125,
- (34) Price taken from various numbers of Edinburgh Evening Courant, 1725.
- (35) Grant, James. The Newspaper Press, its History, Progress and  
Present Position. 3 vols. Tinsley, London, 1871/2.
- (36) Op.cit. (2)
- (37) Op.cit. (5), Page 429.
- (38) Op.cit. (19)
- (39) Op.cit. (2)
- (40) Op.cit. (1)
- (41) Diaries of George Ridpath, Minister of Stichel, 1755-1761. Edited  
with Notes and Introduction by Sir James Balfour. Edinburgh, Constable,  
Scottish History Society, 1922.
- (42) A Poor Man's Physician, or the Receipts of the Famous John Moncrief  
of Tippermalloch. Third edition, Edinburgh, Heriot, 1731.

- (43) Fergusson, Sir James. *Lowland Lairds*. Faber & Faber, London, 1949.
- (44) *Op.cit.* (2)
- (45) *Op.cit.* (3), Page 4.
- (46) Grant, I.F. *Everyday Life in an Old Highland Farm*. Longmans, London 1924, Page 38.
- (47) *Op.cit.* (2)
- (48) Anderson, Dr J. *The Bee*, Vol VI, December 1791, page 243  
Quoted in *Sketches of Northern Rural Life*, *op.cit.* (2)
- (49) *Ibid.*
- (50) *Ibid.*
- (51) *Ibid.*
- (52) *Oxford Book of English Verse 1250-1918*. Ed. Sir Arthur Quiller-Couch. Oxford, Clarendon Press, 1961. Page 440.
- (53) Child, F.J. (Ed.) *The English and Scottish Popular Ballads*, 5 vols Dover, New York, 1965. Vol III, page 379.
- (54) *Op.cit.* (1)
- (55) Quoted in *Jamieson's Dictionary of the Scottish Language*, abridged by John Johnston, revised John Longmuir. Edinburgh, Nimmo, 1867.
- (56) Grigson, G. *The Englishman's Flora*. Phoenix, London, 1955
- (57) *British Pharmaceutical Codex*, an imperial dispensatory for the use of medical practitioners and pharmacists, London, 1949.
- (58) *Potter's New Cyclopaedia of Botanical Drugs and Preparations*. R.C. Wren, F.L.S., Health Science Press, Devon. 1975.
- (59) Gunn, Dr. N. *The Book of Linto Church*. Neidpath Press, 1912. Page 84.
- (60) *Op.cit.* (1)
- (61) Schauenberg, F. & F. Paris. *Guide to Medicinal Plants*. Lutterworth Press, London, 1977. Page 245.
- (62) *Op.cit.* (53), Vol. I, page 18.
- (63) Carmichael, A. (Ed.) *Carmina Gadelica*. 5 vols, Edinburgh 1900. Vol V
- (64) *Op.cit.* (53), Vol IV, page 212.
- (65) *A Compendious Body of Physick...London, Osborn, 1747 (Fam.Mag. 1747, II).*
- (66) *Op.cit.* (63).

CHAPTER II

Sources of Information Concerning Eighteenth Century Domestic Medicine

It has been seen in the previous chapter that it is difficult to obtain first-hand information concerning what the average person in eighteenth century Scotland actually did when he was ill. This difficulty arises chiefly because few people kept written records.

It therefore came as a very pleasant surprise to find that it has been possible to build up a collection of Scottish eighteenth-century letters and notes, written by members of the gentry, but referring to home remedies actually used by a wide variety of ordinary, and in some cases, illiterate, people.

In some instances, a recipe has evidently been dictated by the wheelwright, or whoever is concerned. In other instances, remedies have been passed from one to another by word of mouth, and finally preserved by the recorder.

One very rich source of such information has been the papers of the Clerk family of Penicuik. In addition, use has been made of numerous recipes for medical "cures" recorded in letters, diaries and kitchen books belonging to various other Scottish landed families. These have been found mainly in the collection housed at the Scottish Records Office, Register House, Edinburgh.

The origins of the remedies are various. Some have clearly been taken from contemporary literature: for example, one of the Clerk family took the trouble to copy out verbatim large chunks of John Moncrief's book, *The Poor Man's Physician*. Incidentally, this copy pre-dates the first printed edition of the book by some years (see Page 329) so the writer must have borrowed the work in manuscript form. The later

success of the book in its successive editions led to its becoming increasingly widespread. Graham suggests that most country mansions in eighteenth century Scotland possessed a copy (1). Other recipes have been copied from newspapers and magazines of the day: some have been provided by friends and relations, and some by famous physicians both in Britain and abroad. In addition, there is the small category referred to above, consisting of advice from members of the lower classes.

This latter category perhaps comes as a surprise; one might imagine a more feudal rural life in eighteenth century Scotland than this implies with the Lady of the manor, if she were kindly disposed, handing out herbs to the workers on her husband's estates. However, perusal of eighteenth century letters and documents builds up a much more democratic picture than this. Among the Clerk papers are examples of home remedies obtained from all kinds of people, ranging from a Commissioner of Excise from Yorkshire (2), to a wheelwright at Dalkeith (3), and from a laird (4), to the local butcher (5). Whether the Clerk family were exceptional in their catholic collection of friends is of course difficult to establish, but probably they were not. Scotland, it has been claimed, was never as feudal in its attitudes as England. Sir James Fergusson, in his book 'Lowland Lairds', points out that "class distinctions were never strong in Scotland", and that

"between the laird and his tenant and even his servant there remained a kinship of feeling, a realisation of common interest, a sense of loyalty to the soil on which and from which both of them lived, which in comparison scarcely existed between English squires and English yeomen.....This relationship was maintained after the Reformation

by the educational system which, till well on in the nineteenth century, sent the sons of laird, farmer, smith and fisherman to sit side by side on the same school bench." (6).

Fenton (7) reminds us that, early in the eighteenth century, unmarried farm labourers ate and slept in the same house as the "goodman". Later, the introduction of the bothy system meant that they ate and lived by themselves, an arrangement which presumably led to less exchange of conversation, news (and medical recipes!).

Probably the truth of the matter is that no-one could afford to dismiss any source of possible medical aid, at a time when medical knowledge of the causes of diseases was embryonic, true cures were few, and infectious and dietary illnesses were rampant. The inadequacy of eighteenth century British medicine is vividly described by Frank Egerton, in a recent article describing a botanical impostor in the field of medicine. He points out that the eighteenth century was a time

"when even the best physicians might do more harm than good for their patients; when apothecaries prescribed medicines as well as preparing them; when a medical degree from a British university was not a guarantee of first-hand medical experience; when charlatans and self-made practitioners were often tolerated or condoned by society; when there were not nearly enough physicians; when many members of the Royal College of Physicians were more concerned with establishing an exclusive and profitable guild than they were in raising standards of practice; and when even the flimsy regulations governing medical practice in Britain applied primarily to London and its environs" (8).

Given this state of affairs, it was inevitable that domestic remedies should play an important role in eighteenth century Scottish medicine.

The medical recipes quoted in succeeding chapters from the Clerk of Penicuik papers, fall into several groups. One collection (9), was made in the late seventeenth century by Sir John Clerk (1649-1722), made a Knight-Baronet by King Charles II in 1679. His son tells us

"he was one of the strongest men in his time, but not tall in stature, being scarce 5 foot 6 inches. He was at times much afflicted with the Gout and the Gravel, but after his age of 60 he got pretty free of both these distempers, by giving over the use of all other liquids but milk and water" (10).

Many of the surviving medical recipes in his handwriting are for the gravel (See Chapter V).

The second group of Clerk family recipes (11) are dated 1693-1734. They include, in the same handwriting, the copy of Tippermalloch's Receipts, 1693, and a recipe dated 1734, for General Wade's Balsam. Since the eighteenth-century Sir John did not marry until 1701, and his wife Lady Margaret Stuart, died in childbirth in the same year, these recipes cannot be hers. It is not clear which member of the family wrote these.

The third group of Clerk recipes (12) are the work of Sir John Clerk (1676 - 1755), and comprise a wide selection, dating from 1740 to 1749. Sir John died in 1755, aged 80.

Another rich source of eighteenth century home remedies has been the family papers of the Murray family (13). Alexander, the second son of Richard Murray of Broughton, inherited the estates in 1705. He acquired further lands in Kirkcudbrightshire. In 1726 he married Lady Euphemia Stewart, daughter of the fifth earl of Galloway. Their son James Murray succeeded in 1750 and married in 1752 his cousin, Lady Catherine Stewart, daughter of the sixth earl. He was founder

of the burgh of Gatehouse of Fleet and sometime MP and Receiver-General for Scotland. He died in 1799 leaving no legitimate issue (14).

The so-called "Broughton and Cally" collection of medical recipes quoted in succeeding chapters are dated c1730-40, and are presumably the collection of Lady Euphemia. They are intermingled with culinary recipes, for petticoat tail, Gooseberry wine etc, and form a noticeably feminine "kitchen book", in contrast to the Clerk of Penicuik recipes, where we find medical remedies interspersed with medical and philosophical musings. Lady Stewart's remedies tend to include more precise instructions for making up the various medicines, suggesting that the author actually prepared the recipes herself. They also include a number of cosmetic recipes.

Before looking in detail at some of these eighteenth century medical home remedies, another general point needs to be made. There can be no hard and fast line drawn between home remedies and orthodox medical ones, since both clearly borrowed from each other, as well as from earlier centuries. Particularly is this true of eighteenth century printed works on home medicine.

One of the most famous Scottish eighteenth century books of this type is "The Poor Man's Physician, written by John Moncrief of Tippermalloch, and first published in 1714. He himself was a minister and a landowner. The recipes contained in his book were drawn from a variety of sources, including medical and folk-medical ones. He borrowed largely from the sixteenth century work of Petrus Hispanus, as he himself states in the introduction to his book. Further information relating to John Moncrief is given in the Appendix on Page 324.

Moncrief's book achieved great popularity in Scotland and ran into three editions. It seems to have been one of the most important printed books of home remedies current in eighteenth century Scotland. It is for this reason that, despite the fact that many of its remedies are derived from much earlier sources, it has been used extensively in the following chapters.

Since the present work attempts to portray in particular Scottish home remedies belonging to the eighteenth century, the contemporary English kitchen books and printed books have been referred to only en passant. The other work of Scottish origin which has been widely quoted throughout the following pages is a better-known printed work, viz "Domestic Medicine" by William Buchan. Buchan was an Edinburgh-qualified doctor, born in Ancrum, Roxburghshire, in 1709. He obtained his MD at Edinburgh in 1761, and died in 1805, having practised largely in London, but for part of his life in the Scottish Borders (15). The first edition of his book appeared in 1769, and numerous subsequent editions were published throughout the remainder of the eighteenth and well into the nineteenth centuries.

Buchan was a controversial figure during his lifetime, since his idea of making orthodox medical knowledge available to the literate public met with strong opposition from the medical faculty, as he himself states in the preface to the later editions of his book (16). It seems that Buchan is still a controversial figure today. Lawrence (17) suggests that Buchan was not the sole author of "Domestic Medicine", but that the printer, William Smellie, largely revised and re-wrote it.

However that may be, Buchan's book achieved great popularity, so that Jeffrey, writing about Roxburghshire in 1836, could claim that

"Scarcely a cottage but what contains on its shelf the Domestic Medicine" (18)

while in the north of Scotland, we are told, the schoolmaster

"was a daily reader of Buchan's 'Domestic Medicine', all whose instructions he rigidly, and often successfully practised" (19)

Lawrence points out that Buchan was very much a man of his times, and that his attempt to popularise medicine accorded well with eighteenth century enlightenment philosophy (20).

Buchan's book occupies a position intermediate between home and orthodox medical practice of the eighteenth century. Indeed, the existence of such books as this demonstrates the impossibility of an absolute separation between home remedies and orthodox medicine in eighteenth century Scotland.

The purpose of this present thesis is to illustrate, as far as possible using primary sources, the types of home remedies actually used in eighteenth century Scotland. A few major eighteenth century diseases have been selected, and the home remedies found for each of them described. Wherever possible, the ingredients of the home remedies have been identified in modern botanical terms, and some indication of their possible pharmacological effectiveness has been given. This information is contained in the tables at the end of each chapter.

Here a slight digression is necessary. It is, understandably, almost impossible accurately to identify an eighteenth century disease description with a present-day diagnosis. For this reason, broad disease headings have been used, from which those with greater medical knowledge than the present author may be able to discern the differential diagnosis.

REFERENCES.

- (1) Graham, Henry G. The Social Life of Scotland in the Eighteenth Century. Adam & Charles Black, 1909.
- (2) See entry for 1726 in the 'Memoirs of the Life of Sir John Clerk of Penicuik, Baronet, Baron of the Exchequer. Extracted by Himself from His Own Journals 1676-1755. Edited from the Manuscript in Penicuik House with an Introduction and Notes, by John M. Gray. Edinburgh. Scottish History Society 1892, Vol XIII, page 121:  
"began corresponding with Roger Gale, of Scruton, Yorkshire"..  
Roger Gale was a commissioner of excise and an antiquarian, born in 1672.  
  
Among numerous medical recipes collected by the Clerk family, there is one collection (Scottish Records Office GD18/2142), written by Sir John Clerk. On the outside of the collection her records  
"The following recipes were written by me after 1740 and most of them have been tried either by my self or friends"  
One of the recipes is for "a tickling cough"....  
"N.B. this was so effectual a cure for my friend Roger Gale of Scruton in Yorkshire that it both removed his cough and the swelling of his legs and belly"
- (3) Scottish Records Office, Edinburgh GD 18/2125 Clerk of Penicuik Papers. 18 June 1669 "a recipe from David Livingstoun (wheelwright) Dalkeith".
- (4) Scottish Records Office, Edinburgh GD 18/2125 Clerk of Penicuik Papers. "1st June 1666 A receipt the Laird of Innes gave me".
- (5) Scottish Records Office, Edinburgh GD 18/2125 Clerk of Penicuik Papers. "A recipe against the bite of mad dogs, 1739...This is the common practise of the Fleshers in Dalkeith"
- (6) Fergusson, Sir James Lowland Lairds. Faber & Faber 1949
- (7) Fenton, Alexander Scottish Country Life. Donald, Edinburgh, 1976.
- (8) Egerton, Frank N. Richard Bradley's Illicit Excursion into Medical Practice in 1714. Med. Hist. 14, 1970
- (9) Scottish Records Office, Edinburgh. Clerk of Penicuik Papers GD 18/2125.

- (10) Memoirs of the Life of Sir John Clerk, see (2).
- (11) Scottish Records Office, Edinburgh. Clerk of Penicuik Papers  
GD18/2130
- (12) Scottish Records Office, Edinburgh. Clerk of Penicuik Papers  
GD 18/2142
- (13) Scottish Records Office, Edinburgh. Broughton Cally Papers  
GD10/911
- (14) Scottish Records Office Inventory for Kirkcudbrightshire and  
Wigtownshire.
- (15) Comrie, John D. History of Scottish Medicine. Wellcome  
Historical Museum. 1932.
- (16) Buchan, William, M.D. Domestic Medicine, or a Treatise on the  
Prevention and Cure of Diseases by Regimen and Simple Medicines.  
Glasgow. Printed by Stephen Young, for Gardner, Shaw & Struthers,  
Calton, 1806.
- (17) Lawrence, C.J. William Buchan: Medicine Laid Open. Med.Hist. 19  
1975, pp20-35.
- (18) Jeffrey, A. An historical and descriptive account of Roxburghshire.  
Edinburgh, Fraser 1836. Page 420.  
Quoted by Lawrence, see (17) above.
- (19) Sage, D. Memorabilia domestica, or parsih life in the north of  
Scotland. Wick, W.Rae 1889. Page 179.  
Quoted by Lawrence, see (17) above.
- (20) Lawrence, C.J. see (17).

CHAPTER III

Domestic Remedies for Scurvy in Eighteenth Century Scotland

The first "disease type" that will be considered is, in eighteenth century parlance, a "scorbutic constitution". Scurvy, a disease now confined in Britain to the poorest quarters of our larger cities, and to the neglected elderly, was in the eighteenth century an extremely common complaint among people in all walks of life.

In modern terminology, scurvy is characterised by a general feeling of illness (1), spongy gums which bleed easily, loose teeth, spontaneous bruising and eventually bleeding into the joints, acute pain, anaemia and sudden death (2). Although the disease was not clearly defined in this way in the eighteenth century, many cases described then as scurvy, really were scurvy in our modern sense. For example, John Clerk, writing in February 1735, remarks that he was losing teeth

"by a kind of scorbutic disposition in my Gums, for they fall out perfectly white and entire" (3).

However, in other instances the term "scorbutic" was evidently used more vaguely, as by Sydenham (1624-89), when he spoke of scorbutic rheumatism (4). Lorenz (5) notes the association of scurvy in eighteenth century parlance with a variety of diseases, including venereal disease and rheumatism. He points out that even James Lind (1716-94) associated scurvy with arthritis.

In 1704, Dr Archibald Pitcairne (1652-1713), prescribed for "my Lord S--..who is very scorbutic and has lumps with redness", also for a William Malcolme who "has a scorbutic..hard swelling in his thigh" (6). In such cases, it is extremely difficult to know whether or not the patient was indeed suffering from what we would today describe as scurvy.

The frequent association of arthritis with scurvy in eighteenth century literature could reflect that often people were suffering from

more than one complaint; or, possibly, the fact that joint pains often accompany advanced scurvy could have misled people into assuming that arthritis and scurvy are always related.

The difficulty of defining an eighteenth century disease type has already been pointed out (Page 34). However, the numerous references to scurvy in eighteenth century Scotland make it clear that the disease was then prevalent.

Alexander Pennecuik, M.D. (1652-1722) wrote, in 1715, in his 'Description of Tweeddale':

"The diseases that generally affect the people of this country are chiefly the scurvy, which is ordinarily complicated more or less with all other maladies" (7).

Pococke, in his 'Tour through Scotland (1760) records that the inhabitants of St Kilda "are subject to the scurvy, and many of their children dye" (8).

It has recently been suggested, by Wilson, that epidemics of scurvy did not occur in cities during the eighteenth and nineteenth centuries (9). Another author, Hirsch, claims that there have been few true outbreaks of scurvy on land (10). Whilst it is probably true that the disease did not reach epidemic proportions, it was certainly widespread in Scotland during the eighteenth century, at least in its less acute forms. Indeed, even to-day in Britain "sub-clinical deficiency (of Vitamin C) in the elderly is common". Exton-Smith, of University College Hospital, London, writing in 1970, tells us

"Most consultants in Geriatrics see one or two frank cases of scurvy each year - especially in elderly men. The manifestations are weakness, anaemia, swelling and bleeding of the gums, 'sheet' haemorrhages in the skin of the legs and arms, and sometimes haemorrhages in other sites. These overt manifestations are comparatively rare,

but the bodily reserves of vitamin C in many old people are low... such low levels are not a natural effect of ageing since by feeding with increased ascorbic acid they can be brought to the levels of those seen in younger people." (11)

If these remarks hold good in Britain in the present century, one feels that by the end of the long Scottish winter, a large number of people in the eighteenth century would have been suffering at least from subclinical scurvy.

One cannot be surprised at the prevalence of scurvy in eighteenth century Scotland when one considers how few fresh vegetables and fruit were eaten. Kale was only grown on a significant scale in the second half of the century (12), and even then its dietary importance was not fully recognised. Indeed, we find Sir John Clerk of Penicuik in 1745 and 1754 actually blaming two of his illnesses on eating kale and cabbage! (13). The only other vegetables commonly eaten were turnip and potato, both of them moderately good sources of Vitamin C (14).

Graham (15) points out that, although turnips were introduced into England in 1716, they were treated with grave suspicion in Scotland until well on into the century, and Captain Topham in his letters records how they were treated in Edinburgh as a delicacy and eaten as dessert!

Potatoes similarly were only slowly adopted, becoming fashionable only in the second half of the century. Until then oats and oatcakes were the mainstay of many families. The vitamin C content of oats is nil (16)

James Logan, in The Scottish Gael (17), gives the following account of eighteenth century diet among the poorer classes;

"Before the middle of the eighteenth century the usual diet was kail brose and kail soup; the former was made of kail shredded and boiled and then mixed with oatmeal; the soup was a sodden mass of kail and water, occasionally with an old hen boiled in it. Even in summer the outside leaves of the young kail were picked off and made into soup; these leaves were called stowans. If there was room in the kailyard, Bere was grown for pot barley, which was used, so long as it lasted, as an additional ingredient in the soup. The only other vegetables grown were Peas, Beans and more rarely turnips, with parsnips at a later date ..... Highlanders were even more backward; indeed, until after the '45 they did not include vegetables in their diet and actively disliked them. The Clan Grant were among the first to cultivate kitchen gardens, and for many years were called 'the soft Kail-eating Grants'".

The name kail refers to Coleworts, species of Brassica, related to cabbage. The vitamin C content would be high before cooking, but would be partially destroyed by prolonged boiling. Barley, peas and beans lack vitamin C (18).

Potatoes were "an expensive luxury until about 1775" (19).

Alexander, in his book 'Northern Rural Life in Scotland', (20), gives this account of potato growing:

"The first experiment in Scotland in cultivating potatoes in the field was made at Kilsyth, in 1739. An entire half acre was planted, and many persons came from great distances to see the extraordinary novelty. But it was not till about 1760 that the potato was generally cultivated, even in gardens; and for twenty years thereafter it was not greatly in use as an article of food in the North of Scotland. The Turnip, which had received earlier

attention in Norfolk, seems to have been introduced into Aberdeenshire about the year 1750. One of the Old Statistical writers says 'Mr Burnett of Kemnay is said to have been the first farmer in the county of Aberdeen who raised turnips in the fields'; but he gives no date. The first turnips were seen in Kincardineshire about 1754; and ten years thereafter, in 1764, they were still so great a rarity - half an acre being deemed a large plot - that they were sold, by the few who grew them in small quantities at the rate of a penny a stone weight as kitchen vegetables."

As far as fruit was concerned, even at the end of the eighteenth century in farm gardens "Fruit was rarely seen, and was confined to an occasional Apple or Pear tree and gooseberries and Currants" (21). Scotland's climate was, and is, adverse to fruit-growing. In his 'Tour in Scotland' (1769), Pennant remarks of the Strathearn area:

"Fruits succeed here very indifferently; even nonpareils require a wall to ripen: grapes, figs, and late peaches, will not ripen: the winters begin early and end late, and are attended with very high winds" (22).

The winter season throughout much of Scotland is long, with frosts from September through to April and May. The growing season is correspondingly short. This means that fresh vegetables, locally grown, are unavailable for up to eight months. The human body does not store vitamin C to any great extent and clinical symptoms of scurvy (lassitude, bleeding gums, etc) appear after about six months on a diet low in vitamin C (23). It is obvious that at the end of the winter, a high proportion of the population of eighteenth century Scotland will have been suffering at least from "pre-clinical" scurvy. Turnips and potatoes when stored retain some of their vitamin C content, though this is reduced (24). During a hard winter in a poor household, the

turnips would mostly be fed to the livestock anyway.

Citrus fruit, one of the richest sources of vitamin C, were a luxury for the few in the eighteenth century. Oranges cost 4d a pound in Lanarkshire in 1758, lemons 9d for six in the same year (25). Compare this with the cost of salted herrings, 3/6d per 100, and of rice, 2/9d for 12 pounds in 1757, and it will be apparent that fresh oranges and lemons were a luxury item. In the case quoted, they were evidently bought for marmalade making, since sugar and cans for marmalade making were purchased at the same time. The English habit of marmalade for breakfast became fashionable in relatively wealthy circles in Scotland about the middle of the century. Since vitamin C is largely destroyed by heating, the vitamin C content of marmalade must be low.

Green tea, and black, became fashionable among the gentry in the second decade of the century (26). The former is a moderately good source of vitamin C (27). However the cost of tea at first was prohibitive, costing as it did 8/- for half a pound of green tea in 1759 (28). This would represent a fortnight's wages for a casual farm labourer (See Page 5 ). No wonder that tea-drinking was regarded by some as extravagant, as well as unmanly! Graham tells us that the introduction of tea met with opposition from medical men, such as Alston, from ministers, and from the gentry who derided it as an effeminate drink (29). The eighteenth century merchant and philanthropist Jonas Hanway claimed that tea was a danger to health and morals (30).

It seems reasonable to conclude that the diet of the poorer classes in Scotland in the eighteenth century was deficient in vitamin C, at least during the winter months.

The picture was probably quite different among the landed gentry. Numerous different fruit and vegetables were grown on the Harvie estates

(31). The House of Dalkeith were likewise well supplied with sources if vitamin C, as this list of vegetables, supplied in 1702/3, shows. The produce was provided by a market gardener, John Ano, while the Dalkeith gardens were being made:

Artichokes	May to August	
Asparagus	April to May	
Beans	July	
Cabbage	December to February	
Carrots	December to March, June to August	
Cauliflowers	July	
Cellery	December to March	
Colewort	February to May	
Lettuce	February to August	
Onions	December, April to August	
Peas	July	
Savoy	February to March	
Scorzonera	February to May	
Spinage	December to August	
Turnips	December to February, June to August	(32)

This family certainly should not have suffered from scurvy!

Various theories of the aetiology of scurvy were current during the eighteenth century. John Pechey, in his 'Compleat Herbal' of 1694 attributed scurvy to too much salt. He claimed it is especially common

"among those that live on the sea-shore.....and among such as chiefly feed on salt fish" (33).

The observation he made is probably true, even though the inference is incorrect. Scurvy was undoubtedly common among fish-eaters. Pococke, in his 'Tour through Scotland' (1747), tells us that the inhabitants of St Kilda

"are subject to the scurvy, and many of their children dye; for they live chiefly on sea-fowl, fish and eggs" (34).

Sir John Clerk of Penicuik, as we have already noted (Page 38), subscribed

to the eighteenth century notion of a 'scorbutic constitution'. We find him complaining, in 1735, of losing his teeth by

"a kind of scorbutic disposition in my gums, for they fall out perfectly white and entire" (35).

Probably the theory of scurvy did not concern the majority of sufferers. The ordinary person confronted with scorbutic spots either ignored them, and hoped they would go away, or else had recourse to a well-tried remedy belonging to family and friends. Too much time and energy were taken up with the business of survival to worry about the theories of disease. Even the view of illness as a punishment for sins was a prerogative of the literate classes. A certain amount of ritual and mystery surrounding a cure would then, as now, serve to increase the faith of the patient, but it is the belief of the present writer that the vast majority of mankind are not deeply interested in the causes of their illnesses, but only in having them cured. There is no reason to suppose that eighteenth century mankind was any different from twentieth century mankind in this respect. Today we are told that smoking causes lung cancer, yet the incidence of lung cancer, except among the medical profession, is not falling as a result of this revelation (36). Most of us do not really connect the smoking of a cigarette every ten minutes of the day with what might happen to our lungs in ten or twenty years' time. Apart from the research scientists, we are little concerned with the theory of disease, only with its cure. This was likewise probably the case in the eighteenth century.

It was, of course, during the eighteenth century that scurvy as an occupational hazard of sailors was conquered, thanks largely to the work and persistence of Dr Lind. This story is already fully documented, and fully told elsewhere, e.g. by Chick (37). Lind's observations on the

importance of lemon juice were foreshadowed by various earlier writers. John Woodall, for instance, in the 'Chirurgion's Mate, or Military and Domestic Surgery', published in 1639, gives this advice for scurvy:

"For drink, barley water, with some juice of lemons, if it may be had, if not, with oil of vitriol and sugar. The juice of lemons is a precious medicine, and well tried, being sound and good: let it have the chief place, for it will well deserved it. It is to be taken twice a day, with a spoonful or two of sugar" (38).

Admiral Sir Richard Hawkins, writing of scurvy in 1662, claimed "That which I have seene most fruitfull for this sicknesse, is sower Oranges and Lemmons" (39).

Martin Lister, in 1694, tried a variety of treatments for scurvy and concluded that the citrus fruit contain

"a special exotic principle curative of scurvy superior to bezoar stones and the like .....I have observed in all my medical practise that with no other remedies were such successful results effected as with lemons" (40).

James Lind (1716-1794) was a Scot, apprenticed to an Edinburgh surgeon. He obtained his MD from Edinburgh in 1748, and his FRCP (Ed.) in 1750. At the age of 23 he went south to join the navy, and in 1763 wrote:

"The scurvy alone, during the last war, proved a more destructive enemy, and cut off more valuable lives, than the united efforts of the French and Spanish Arms" (41).

Lind's great contribution lay, not in the discovery of citrus fruit as a cure for scurvy but in his demonstration of its superiority to other forms of treatment and in his perseverance in persuading the navy to adopt the use of lemons. His famous clinical trial began on board HMS Salisbury

in 1747:

"On the 20th of May 1747, I took twelve patients in the scurvy, on board the Salisbury at sea. Their cases were as similar as I could have them. They all in general had putrid gums, the spots and lassitude, with weakness of their knees. They lay together in one place, being a proper apartment for the sick in the fore-hold; and had one diet common to all.....Two of these were ordered each a quart of cyder a day. Two others took twenty-five gutts of elixir vitriol three times a day, upon an empty stomach; using a gargle strogly acidulated with it for their mouths. Two others took two spoonfuls of vinegar three times a-day, upon an empty stomach;.... Two of the worst patients, with the tendons in the ham rigid... were put under a course of sea-water. Of this they drank half a pint every day, as it operated by way of gentle physic. Two others each had two oranges and one lemon given them every day. These they ate with greediness, at different times, upon an empty stomach. They continued but six days under this course, having consumed the quantity that could be spared. The two remaining patients, took the bigness of a nutmeg three times a-day, of an electuary recommended by an hospital surgeon, made of garlic, mustard-seed, rad. raphan., balsam of Peru, and gum myrrh; using for common drink, barley water well acidulated with tamarinds.....The consequence was, that the most sudden and visible good effects were perceived from the use of the oranges and lemons; one of those who had taken them being at the end of six days fit for duty....The other was the best recovered of any in his condition; and being now deemed pretty well, was appointed nurse to the rest of the sick" (42).

As a result of Lind's determination and perseverance, lemon juice was eventually, in 1798, issued to the navy, and the number of scurvy cases slumped dramatically. In 1780, 1457 scurvy cases were admitted to the Naval Hospital at Haslar; in the period 1806-1810, only two such cases were admitted (43).

Lind's clinical trial has been criticised, e.g. by Hughes (1975) for its lack of stringency (44). By modern standards, such a trial may appear inadequate, but surely by the standards of the day it was a remarkable achievement, and the success in terms of lives subsequently saved more than justified it. James Lind's great contribution should not be belittled (45).

Lind recognised clearly the causes of scurvy. He referred to the work of Bachstrom (1734) and translated the following:

"From want of proper attention to the history of scurvy, its causes have generally, though wrongfully, supposed to be, cold in northern climates, sea air, the use of salt meats, etc.: whereas this evil is solely owing to a total abstinence from fresh vegetable food, and greens; which is alone the primary cause of the disease" (46).

Medical theory and practice do not always go hand in hand. Often there is a considerable time lag between discovery and improved medication. This is particularly clear in the case of scurvy. Lind in his elegant experiment of 1747 clearly demonstrated that lemon juice cured scurvy. Yet people continued to die of scurvy, even as recently as 1875, in a reputable London hospital (47). Vitamin C was not actually isolated until the twentieth century; so it is surprising when one considers that the Leipzig Dr Moellenbrok in 1676 characterized the "volatile spirit of scurvy grass" and realised that it "is lost in drying the leaves". His book was "Englished" by Tho. Sherley, M.D. in 1676 (48), yet a further 250 years elapsed before Vitamin C was finally isolated. The sad mistake of limes being issued to the British Navy in lieu of lemons in the nineteenth century, and the subsequent increase in scurvy, is well known. Citrus medica var Acidum, the West Indian Lime, is a poor source

of Vitamin C compared to the lemon, Citrus medica var limonum (49). During the First World War, dried herbs were supplied to the army in an attempt to prevent scurvy, even though vitamin C is almost totally destroyed by drying (50).

After this brief survey of the incidence, theories and history of scurvy, let us look now at some of the domestic remedies available in eighteenth century Scotland to combat it. Although the dietary factors involved in scurvy were not clearly recognised until late in the eighteenth century, many of the home remedies used for scurvy were remarkably sensible in the light of our present-day knowledge. Table I shows some of the remedies used, and it can be seen at a glance that many of them include plants now known to be rich in vitamin C. Many of the herbal ingredients of these remedies are native plants, which would cost nothing. Such plants as Brooklime (Veronica beccabunga L.) and well cress or water cress (Rorippa nasturtium-aquaticum L.) could be gathered beside nearly every burn in Scotland.

Scurvy Grass (Cochlearia officinalis L.) had for long enjoyed a reputation in treating the disease for which it is named. Dr William Clowe, physician to Queen Elizabeth, in 1596 recommended for scurvy "coclearia or scorby grass" infused in ale (51). Gerard in his Herbal of 1597 extols the virtue of this same plant in curing "this filthie lothsome, heavie and dull disease" (52). Anthony a Wood tells us that in the mid-seventeenth century it was fashionable to take a scurvy-grass drink in the mornings (53). In the eighteenth century, James Lind relates Bachstrom's tale of a castaway who, washed up on the coast, cured himself of scurvy by eating Cochlearia (54).

As Table I shows, there was a wide variety of home remedies for scurvy in use in Scotland during the eighteenth century, particularly if we include those suggested by John Moncrief in his book "The Poor Man's Physician". Moncrief himself was a minister (See Appendix)

The first edition of his book appeared in 1716. In the Preface we read:

"As for the Cures themselves, the Reader will readily observe, that they are generally made up of plain and simple Ingredients, and consequently, tho they be useful for all Degrees of Persons, yet seem mainly designed by the charitable Author for those of a poorer Condition, who have not Access to, nor Money to bestow upon more costly compositions." (55).

The Moncrief remedies included in Table I are taken from his third edition, published in Edinburgh in 1731 (56). Moncrief's scurvy remedies in general consist of half a dozen or so readily available herbal ingredients.

Practically every herb when freshly gathered contains a certain amount of vitamin C, so to this extent the scurvy remedies would do good rather than harm, and would have compensated to some extent for the lack of fresh fruit and vegetables in the diet.

It is of interest to note the considerable overlap between the herbs used in eighteenth century remedies for scurvy, and those used in Russian folk medicine at that time. Margery Rowell (57) mentions, apart from vegetables, the following plants that were used in Russian home remedies for scurvy:

Armoracia rusticana Gaertn.; Cochlearia officinalis; decoction of

Pine cones; Rubus chamaemorus; Vaccinium myrtillus; Empetrum nigrum.

A glance at Table III shows that, of these six species, four appear also in eighteenth century Scottish home remedies for scurvy.

An obvious exception to the general usefulness of these home remedies for scurvy is the list of various mineral waters recommended. 'Taking the Waters' became popular during the eighteenth century for a wide variety of ailments. It could be of little value in the

treatment of scurvy.

Table II lists a number of 'orthodox' scurvy remedies. By 'orthodox' is meant, prescribed by a member of the medical profession. As we have noted in Chapter I, most of these orthodox remedies would have been out of the reach of the bulk of the population in eighteenth century Scotland.

The books published by John Pechey (M.D., London) in 1694 and William Buchan (M.D., Edinburgh) in 1769 (58 and 59), occupy a position intermediate between home and orthodox remedies, since they were written precisely to bring medicine into the home. Clearly, their advice would have reached directly only the literate, but the latter might well have passed the information on.

William Buchan (1709-1805) was born in Roxburghshire, studied medicine at Edinburgh, but practised mainly in London (60). He felt very strongly that it was wrong to hide medical knowledge from the general public, and was willing to brave the displeasure of his colleagues in order to make such knowledge generally available. In the preface to the edition of his book published in 1774, Buchan wrote:

"When I first signified my intention of publishing the following sheets, I was told by my friends it would draw on me the resentment of the whole Faculty. As I never could entertain such an unworthy idea of physicians, I was resolved to make the experiment, which indeed came out pretty much as might have been expected. By the more selfish and narrow-minded part of the Faculty, the performance was condemned; while many of those, whose learning and liberality of sentiments do honour to Medicine, received it in a manner which at once shewed their indulgence, and the falsehood of the common opinion, that all physicians wish to conceal their art." (61)

This excerpt illustrates the hostility that undoubtedly existed between the advocates of 'do-it-yourself' medicine, and many members of the medical profession. We have already noted examples of this antagonism

in Chapter I. Buchan evidently continued to battle against medical opposition, as the preface (dated 1789) to his 1806 edition shows:

"Although the Domestic Medicine was never intended to supercede the use of a physician, but to supply his place in situations where medical assistance could not easily be obtained; yet the Author is sorry to observe, that the jealousies and fears of the Faculty have prompted many of them to treat this Work in a manner altogether unbecoming the professors of a liberal science: notwithstanding their injurious treatment, he is determined to persist in his plan, being fully convinced of its utility; nor shall interest or prejudice ever deter him from exerting his best endeavours to render the Medical Art more extensively beneficial to mankind." (62)

Buchan's remedies are intermediate between home and orthodox methods of treatment. To attempt a complete separation of the two types of remedy is clearly artificial. However, a comparison of Tables I and II does bring out certain differences, and these are highlighted in Table III. Table III shows, where possible, the modern identity of a particular herb, and indicates its vitamin C content where this is known. As already stated, all fresh herbs will contain a certain amount of vitamin C, but this content will be reduced when the plants are dried, infused, pickled, or otherwise preserved.

One might perhaps have expected the orthodox remedies to contain fewer ingredients than the folk remedies, but the reverse seems to have been the case. These scurvy remedies taken in isolation are insufficient to prove the point, but as we proceed to consider other diseases, it will be seen that the same trend can be illustrated.

Table III lists 64 plants or plant derivatives used in the treatment of scurvy. Of these, only 14 appear in the home remedies; 57 appear in orthodox remedies. So there is a wider diversity of ingredients among

the orthodox remedies.

Eleven out of the fourteen home-remedy ingredients are native plants, which could be gathered free: of the remaining three, one is cultivated (wheat) and one made from apples (vinegar), leaving only a single one which is imported (citrus orange).

By contrast, of the 57 ingredients used in the orthodox remedies, 25, that is to say less than half, are native plants. Seventeen are cultivated, twelve imported and three I have been unable to identify. These results are summarised below:

	HOME REMEDIES	ORTHODOX REMEDIES
Number of ingredients	14	57
Native	11	25
Cultivated	2	17
Imported	1	12
Doubtful	-	3

One cannot draw statistically significant deductions from these figures, since the samples are not large enough, but future chapters will show that the differences are true ones.

Orthodox remedies tended to include a wider variety of more expensive ingredients than did the contemporary home remedies. This meant that they would have been available only to the relatively wealthy during the eighteenth century.

REFERENCES

- (1) Houston, J.C., Joiner, C.L. & J.R. Trounce. A Short Textbook of Medicine. Fifth edition, Hodder & Stoughton, London, 1977. Page 274.
- (2) Davidson's Principles & Practice of Medicine. Ed. J. Macleod. Twelfth edition. Churchill Livingstone, Edinburgh, 1977. Page 126, ff.
- (3) Memoirs of the Life of Sir John Clerk of Penicuik, Baronet, Baron of the Exchequer. Extracted by Himself from His Own Journals 1676-1755. Edited from the Manuscript in Penicuik House with an Introduction and Notes, by John M. Gray. Edinburgh, Scottish History Society, 1892, Vol XIII. Page 147.
- (4) W.S.C. Copeman, M.D., F.R.C.P. A Short History of the Gout and the Rheumatic Diseases. University of California Press, 1964.
- (5) Lorenz, Anthony J. Some Pre-Lind Writers on Scurvy. Proc. Nut. Soc. 12, No. 3, 1953, page 306 ff .
- (6) Pitcairne Papers, Edinburgh University Library Manuscript Dept., Dc.1.62.
- (7) Alexander Pennecuik, M.D. Description of Tweeddale, Leith, 1815. (reprint of work originally published in 1715). Page 81.

"Alexander Pennecuik, M.D. was born in 1652. He claimed descent, through his father, from the Pennecuiks of that Ilk, and, through his mother, from the Murrays of Philiphaugh, Selkirkshire. His father, who had served as surgeon to General Bannier in the Swedish wars, and later as Surgeon-General to 'the auxiliary Scots Army in England', in 1646 purchased the estate of Newhall, near Penicuik; but his wife having inherited the property of Romanno, in Peeblesshire, he, in later life, selected that as his chief place of residence." The younger Pennecuik resided

(7) contd....

abroad during his youth "but during his father's declining years and after his decease, his house was at Romanno, and from that centre he practised his profession"

A more or less contemporary note in a 1715 edition of this work reads "N.B. Dr Pennecuick of Newhall Romanno. A good sort of man tho a very bad poet"

This information is taken from:

Writings of Alexander Pennecuik M.D. and Alexander Pennecuik, Merchant. William Brown. Reprinted from Vol VI of the Publications of the Edinburgh Bibliographical Society, Edinburgh, 1906.

- (8) Tours in Scotland 1747, 1750, 1760 by Richard Pococke, Bishop of Meath (from MS in British Museum). Edited by D.W. Kemp. Edinburgh University Press. Printed for Scottish History Society by Constable, Edinburgh, 1887, page 94.
- (9) Wilson, Leonard G. The Clinical Definition of Scurvy and the Discovery of Vitamin C. J.Hist. Med. XXX, 1, Jan.1975, page 40ff.
- (10) Hirsch, A. Handbook of geographical and historical pathology, Vol II. Trans. London New Sydenham Society, 1885, page 507ff quoted in  
Hughes, R.E. James Lind and the Cure of Scurvy: an experimental approach. Med.Hist. 19, 1975, pages 342-351.
- (11) Exton-Smith, A.N., M.A.,M.D.,F.R.C.P. Nutrition Surveys and the Problems of Detection of Malnutrition in the Elderly.  
Lecture given to the British Dietetic Association on 17October, 1970.
- (12) Fenton, Alexander Scottish Country Life. Donald, Edinburgh, 1976  
Page 160, ff.
- (13) Op.cit.(3), pages 193 and 231.
- (14) Vitamins A Survey of Present Knowledge. Lister Institute and Medical Research Council, London, HMSO, 1932. (Medical Research Council Special Report Series, No. 167). Table XIII.

- (15) Graham Henry Grey. *The Social Life of Scotland in the Eighteenth Century*. Adam & Charles Black, Edinburgh, 1909.
- (16) *Op.cit.* (14).
- (17) Logan, James *The Scottish Gael*, 2 vols, 1831, quoted in Cox, E.H. *A History of Gardening in Scotland*, London, 1935.
- (18) *Op.cit.* (14)
- (19) Cox, E.H. *A History of Gardening in Scotland*, London, 1935.
- (20) *Notes and Sketches illustrative of Northern Rural Life in the Eighteenth Century*, by the Author of *Johnny Gibb of Gushetneuk*. Edinburgh, David Douglas, 1877. (The author was William Alexander, LL.D.)
- (21) *Op.cit.* (19)
- (22) Pennant, Thomas *A Tour In Scotland*. Second edition, London, 1772  
Page 70.
- (23) *Op.cit.* (14).
- (24) *Ibid.*
- (25) Harvie family papers, unpublished, privately owned.
- (26) George, Dorothy *England in Transition*. Penguin, London, 1931.  
Page 31.
- (27) *Op.cit.* (14).
- (28) *Loc. cit.* (25)
- (29) *Op.cit.* (15), page 11.
- (30) Sigerist, Henry E. *A Literary Controversy over Tea in Eighteenth-Century England*. *Bull.Hist.Med.* 13, 185-199.
- (31) *Loc.cit.* (25).
- (32) Dalkeith Manuscripts, quoted by Cox, *op.cit.* (19), page 77.
- (33) Pechey, J. *The Compleat Herbal of Physical Plants*, Bonwicke, London, 1694. Page 167.
- (34) *Op.cit.* (8). Page 94.

- (35) Op.cit. (3)
- (36) Doll, R. & A.B. Hill Mortality in Relation to Smoking: Ten Year Observations of British Doctors. *British Medical Journal* 1, 1964, 1399, 1460, 1464.
- (37) Chick, Hariette Early Investigations of Scurvy and the Antiscorbutic Vitamin. *Proc.Nut. Soc.* 12, No. 3, 1953, page210ff
- (38) Loc.cit. (5)
- (39) Loc.cit. (37)
- (40) Ingleby-Mackenzie, A. James Lind. *Proc.Nut. Soc.* 12, No. 3, 1953, page 233ff
- (41) Quoted by Chick, loc.cit. (37)
- (42) Ibid.
- (43) Budd, 1840, quoted by Chick, loc.cit. (37)
- (44) Hughes, R.E. James Lind and the Cure of Scurvy: an Experimental Approach. *Med.Hist.* 19, 1975, pages 342-351.
- (45) Wyatt, H.V. James Lind and the Prevention of Scurvy. *Med.Hist.* 20, 1976, pages 433-438.
- (46) Loc,cit. (37)
- (47) Loc,cit. (9).
- (48) Loc.cit. (5).
- (49) Alice Henderson Smith A Historical Enquiry into the Efficacy of Lime Juice for the Prevention and Cure of Scurvy. *J.R. Army Med.Cps.*, 1919, 32.  
Quoted by Wilson, loc.cit. (9).
- (50) Loc.cit. (37).
- (51) Loc.cit. (5)
- (52) Gerard, John *The Herbal or Generall Historie of Plantes*, 1597 quoted in Grigson, G. *The Englishman's Flora*, Phoenix, London, 1955, page 60.

- (53) Clark, A. (ed.) *Life and Times of Anthony Wood, 1891-1900.* quoted by Grigson, op.cit. (52), pages 60 and 434.
- (54) Loc.cit. (37).
- (55) *The Poor Man's Physician, or the Receipts of the Famous John Moncrief of Tippermalloch.* Third edition, Edinburgh, 1731.
- (56) Ibid.
- (57) Rowell, Margery *Plants of Russian Folk Medicine.* *Janus* 65, 1978, pages 259-282.
- (58) Op.cit. (33).
- (59) Buchan, William. *Domestic Medicine.* Third edition, London, 1774.
- (60) Comrie, J.D. *History of Scottish Medicine.* Wellcome Historical Medical Museum, London. 2 vols, 1932. Vol II.
- (61) Op.cit. (59), preface
- (62) Buchan, William *Domestic Medicine.* Glasgow, 1806.  
'Advertisement', dated London, Dec 10, 1789.

TABLE I. HOME REMEDIES FOR SCURVY

Date	Remedy	Ref.
c1700	Antiscorbutic juice made from Scurvy Grass, well cress, brooklime, oranges	(1)
1740	Vinegar and honey takes off the itch of a scurvy spot and cures it as my wife has several times experienced but of all cures Moffat water is the best	(2)
1760	Took last night and this morning some Glauber's salts dissolved in whey, having had some scurvy spots and also a gravedo from cold	(3)
	Moffat water 'is esteemed particularly good in all scorbutick disorders, both to bathe and drink, and is particularly good for any sores	(4)
	North Lough, Edinburgh, a sulphurous water lately found, to which the people are resorting all the day, it consists of sulphur and an alkaline salt, and is good in scorbutic disorders	
	St. Catherine's Well-water mixed with 'an unctuous Bituminous Substance ..... they say it is good for Scorbutick diseases'	
	Near Flodden (Northumberland) 'they have a water like that of Epsom Wells, from which they extract a Salt; it is esteemed good in .. Scorbutic disorders'	
Feb. 1788	Antiscorbutick drink for cleanging the blood. Common smooth dock roots gather'd in the beginning of March dryd and slycd one pound dandelion roots slycd three handfuls elder flours four handfuls bring these in two gallons of small ale - drink it when it is clear and fyne	(5)
1731	Take of clear Juice of Watercresses and Brooklime, of each one Ounce, the Juice of Fumitory two Ounces, white Sugar two Drams. Make a Potion	(6)
	Or take the Juice of Fumitory and Water-cresses, of each two Ounces. Mix them	
	Or take the Juice of Sorrel, Fumitory and Water-cresses, of each two Ounces. Mix them	
	Chop small the knotted Place of a Pine-tree, and boil it well in Ale or Beer, that the Stem of it may come out, and drink of it, and this will cure the Scurvy	
	The Party affected with the Scurvy, must take every Morning Wine Vinegar, and the Juice of Blades of Wheat, of each two or three Ounces for ten or twenty Days together, according to the Exigency of the Disease; and he must also often use to take this Composition, and hold it in his Mouth for a good while together, washing his Gums, and sometimes gently rubbing them therewith	
	For the Scurvy broken out rough on any Part. Take Scurvy-grass Leaves, and cut and strain the Juice of them, and mix them with Brandy, and rub the Part affected therewith often, and cause the Patient drink the Root of the Bur-dock sliced, in Ale twice a Day.	

TABLE I. cont'd

References

- (1) Leven Melville Papers, Scottish Records Office, Edinburgh.  
Letter from Robert Menzies to Lord Balgony. SRO GD 26/6/207
- (2) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh.  
SRO GD 18/2142
- (3) Diary of George Ridpath, Minister of Stitchel, 1755-1761.  
Edited with Notes and Introduction by Sir James Balfour Paul,  
C.V.O., LL.D. Edinburgh, Constable. Scottish History Society,  
1922. Page 19
- (4) Tours in Scotland 1747, 1750, 1760 by Richard Pococke, Bishop  
of Meath. From MS in British Museum. Edited D.W. Kemp.  
Edinburgh University Press, Constable, for Scottish History  
Society, Edinburgh, 1887. Pages 39, 308, 315, 349
- (5) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh.  
SRO GD 18/2125
- (6) The Poor Man's Physician or the Receipts of the Famous  
John Moncrief of Tippermalloch. Third Edition. Edinburgh, 1731

TABLE II. ORTHODOX REMEDIES FOR SCURVY

<u>Date</u>	<u>Remedy</u>	<u>Ref.</u>
1694	<p>Fruit of Bramble, Brooklime                      Brooklime, water cress, Scurvy grass, orange juice, sugar                      Red cabbage in wine with ginger and cinnamon                      Berries of Chamamorus, Cloudberry, or Knotberry used in Norway                      Watercress and brooklime, wood-sorrel and white wine                      Dried root of Cuckoo-pintle, (Arum)                      Tops of Pines or Firr boiled in small Ale - add Scurvy Grass,                      Sharp-Pointed Dock, Peel of four Oranges - this is                      frequently used for the Scurvy and is an excellent                      Diet-Drink                      Conserve of Ladies Smock and Brooklime, species of the three                      Sanders, Diarrhod, Abatis, Pearl, Ivory, Salt of Wormwood,                      tamaris, syrup of coral make an electuary                      Seed of mustard beaten in white wine                      Leaves of Garden and Sea Scurvy Grass, juice of Watercress                      and Brooklime, white wine, roots of Briony, Horse-radish                      root, Wake-Robin roots, Winteran Bark, Nutmegs                      Shavings of Horse-radish root, Leaves of Scurvy Grass, Raisins                      of the Sun in a Quart of Beer                      'Wood-sage is excellent for the Scurvy'                      Marsh-Trefeil, or Buckbean, Trifolium palustre 'is much                      commended in the Scurvy'                      Dr. Needham cured scorbutick consumption with birch leaves                      mixed with wine and honey</p>	(1)
c1700	<p>Mercury and Matthew's Pills, Wedderburn's Pills, Liquorice                      in Brandy, 'and drink this Ale for ordinary Drink. Take two                      Pounds of Shavings of Guaiac of Sarfa cut or sliced in a                      Bag, and boil them in three Gallons of Wort to two, then                      throw away the Bag, and put a Gallon of Wort to the rest;                      put Barm to it; while it is working, put to it in a Bag                      half a Pound of crude Antimony, not powdered, with four                      Ounces of sharp-leaved Dock (oxylapathum) sliced, and when                      it has wrought, barrel it, and put some dried Rosemary or                      dried Orange Skins to it, with the juice of 400 or 500                      Sclaters squeez'd through Linen into the Barrel. When the Ale                      has wrought, bottle it. It will not so soon'</p>	(2)
1704	<p>Prescribed for my Lord (Selby?) he is very scorbutic and has                      lumps with redness                      Asses milk, succi scorbutici (see entry under Lewis, below)                      and steel carbi</p>	(3)
1715	<p>Sambucus Ebulus Linnaei, Danewort, 'is accounted a good                      medicine for the gout, and scorbutic disorders'                      Cichorium commended in scurvies. Helenium, Enula Campana,                      Sealwort, commended in scurvies</p>	(4)
1747	<p>Oranges, Seville, are an excellent remedy in the dry scurvy</p>	(5)
1748	<p>Antiscorbutic juice of Edinburgh Pharmacopoeia 1748                      Take juice of Garden Scurvy Grass and Oranges, 1½pt: Water                      Cress, Brooklime, each 1 pt, White Sugar ten ounces. Mix and                      deperate them, according to art; then add half a pint of the                      Compound Water of Horse-radish made as follows:                      Take fresh roots of Horse-radish 3lb, leaves of Garden Scurvy                      Grass and Water Cresses, each 2lb; outward peel of oranges,                      lemons, each 3 ounces; Canella alba 4 ounces, Nutmegs 1 ounce.                      Steep all ingredients in brandy and distil</p>	(6)

- 1774 'when the scurvy has been brought on by long use of salted provisions, the proper medicine is a diet consisting chiefly of fresh vegetables; as oranges, apples, lemons, limes, tamarinds, water-cresses, scurvy-grass, brooklime, etc. .... The most proper drink in the scurvy is whey or buttermilk. When these cannot be had, sound cyder, perry, or spruce beer, may be used. Wort has likewise been found to be a proper drink in the scurvy and may be used at sea, as malt will keep on the longest voyage. A decoction of the tops of spruce fir is likewise proper ... Tar-water may be used for the same purpose, or decoctions of any of the mild mucilaginous vegetables; as sarsaparilla, marsh-mallow roots, etc. Infusions of the bitter plants, as ground-ivy, the lesser centaury, marsh-trefoil, etc., are likewise beneficial... Harrowgate-water is certainly an excellent medicine in the land-scurvy ... The chalybeate water may also be used with advantage ...  
A slight degree of scurvy may be carried off by frequently sucking a little of the juice of a bitter orange, or a lemon ... Perhaps our sorrel may be only a little inferior to either of them ... All kinds of sallad are good in the scurvy, and ought to be eaten very plentifully, as spinage, lettuce, parsley, celery, endive, radish, dandelion, etc. .... I have sometimes seen good effects in scorbutic complaints from the use of a decoction of the roots of water-dock
- 1797 Recommends young pea plants grown on board ship and eaten to prevent scurvy (8)

#### REFERENCES

- (1) John Peckey, A Compleat Herbal of Physical Plants. London, Bonwicke, 1694
- (2) Dr Archibald Pitcairne, quoted by John Moncrief of Tippermalloch in A Poor Man's Physician, Third edition. London, 1731. Page 244
- (3) Dr Archibald Pitcairne. Pitcairne Papers. Edinburgh University Library, Manuscript Department. Dc.1.62
- (4) Hamilton-Dalrymple Papers. Scottish Records Office, Edinburgh. Anon. MS SRO GD110/1178
- (5) A Compendious Body of Physick ... being principally the Commonplace Book of a Late Able Physician ..., 3rd edition. London, 1747. Part II of Family Magazine for 1747
- (6) The Pharmacopoeia of the Royal College of Physicians at Edinburgh. Faithfully translated from the Fourth Edition ... by W. Lewis, M.B., F.R.S. London, John Nourse, 1748. Page 116
- (7) William Buchan MD, Domestic Medicine, Third edition, 1774, Page 427 ff
- (8) William Young of Harley Street. Letter to Scots Magazine Vol. LIX, September, 1797

TABLE III. INGREDIENTS OF SCURVY REMEDIES

Name used in remedy	Native or imported	Present botanical name	Incidence in remedies		Vit C
			HOME	ORTH.	
Abatis	?		0	1	
Apples	Grown	<u>Pyrus malus</u>	0	1	++
Arum	Native	<u>Arum maculatum</u>	0	2	-
Birch leaves	Native	<u>Betula sp.</u>	0	1	-
Bramble fruit	Native	<u>Rubus fruticosus</u>	0	1	++
Briony roots	Native	<u>Bryonia dioica</u>	0	1	-
Brooklime	Native	<u>Veronica beccabunga</u>	2	6	-
Buckbean, see Marsh Trefoil					
Burdock roots	Native	<u>Arctium lappa</u>	1	0	-
Cabbage, red	Grown	<u>Brassica sp.</u>	0	1	+++
Celery	Grown	<u>Apium graveolens</u>	0	1	++
Centaury, lesser	Native	<u>Erythraea centaurium</u>	0	1	-
Chamamorus berries	Native	<u>Rubus chamaemorus</u>	0	1	+
Cichorium, endive	Grown	<u>Cichorium endiva</u>	0	2	+
Cinnamon, Canella alba	Imported	<u>Cinnamomum ceylanicum</u>	0	2	-
Cloudberry, see Chamamorus					
Cress, well cress, water cress	Native	<u>Rorippa nasturtium- aquaticum</u>	4	5	+++
Cuckoo pintle, see Arum					
Cyder, see Apples					
Dandelion	Native	<u>Taraxacum officinale</u>	1	1	+
Diarrhod	?	?	0	1	
Dock, common smooth	Native	<u>Rumex obtusifolius</u>	1	0	-
Elder flours	Native	<u>Sambucus nigra</u>	1	0	++
Endive, see Cichorium					
Enula, see Helenium					
Firr	Grown	<u>Abies sp.</u>	0	2	-
Fumitory	Native	<u>Fumaria officinalis</u>	1	0	-
Ginger	Imported	<u>Zingiber officinale</u>	0	1	-
Ground Ivy	Native	<u>Glechoma hederacea</u>	0	1	-

TABLE III. cont'd

Name used in remedy	Native or imported	Present botanical name	Incidence in remedies		Vit C
			HOME	ORTH.	
Guaiac	Imported	<u>Guaiacum officinale</u>	0	1	—
Honey			1	1	0
Horse radish	Native	<u>Armoracia rusticana</u>	0	1	—
Knot of Pine, see Pine	Native	<u>Pinus sp.</u>	1	0	—
Knotberry, see Chamamorus					
Ladies Smock	Native	<u>Cardamine pratensis</u>	0	1	—
Lemon	Imported	<u>Citrus limonia</u>	0	1	+++
Lettuce	Grown	<u>Lactuca sativa</u>	0	1	+++
Limes	Imported	<u>Citrus medica</u> var. <u>acida</u>	0	1	++
Liquorice	Imported	<u>Glycyrrhiza glabra</u>	0	1	—
Marshmallow	Native	<u>Althaea officinalis</u>	0	1	—
Marsh Trefoil	Native	<u>Menyanthes trifoliata</u>	0	1	—
Mustard	Grown	<u>Brassica nigra</u> or <u>Sinapis alba</u>	0	1	0
Nutmeg	Imported	<u>Myristica fragrans</u>	0	1	—
Oranges	Imported	<u>Citrus spp.</u>	1	6	+++
Parsley	Grown	<u>Carum petroselinum</u>	0	1	—
Pea plants, young	Grown	<u>Pisum sativum</u>	0	1	++
Perry			0	1	
Pine tops	Native	<u>Pinus sp.</u>	0	2	—
Radish	Grown	<u>Raphanus sativus</u>	0	1	—
Raisins	Imported	<u>Vitis vinifera</u>	0	1	0
Rosemary	Grown	<u>Rosmarinus officinalis</u>	0	1	—
Sambucus ebulus	Native	<u>Sambucus ebulus</u>	0	1	—
Sanders		?	0	1	
Sarsaparilla	Imported	<u>Smilax</u> <u>aristolochiaefolia</u>	0	1	—
Scurvy Grass	Native	<u>Cochlearia officinalis</u>	2	6	+
Sealwort, see Helenium					
Sharp-pointed Dock	Native	<u>Rumex ? conglomeratus</u>	0	2	—
Sorrel juice	Native	<u>Rumex acetosa</u>	1	1	+
Spinage	Grown	<u>Spinacea oleracea</u>	0	1	++
Spruce-beer	Grown	From <u>Picea sp.</u>	0	1	—
Tamarinds	Imported	<u>Tamarindus indica</u>	0	1	+

TABLE III. cont'd

Name used in remedy	Native or imported	Present botanical name	Incidence in remedies		Vit C
			HOME	ORTH.	
Tamaris	Grown	<u>Tamarix sp.</u>	0	1	—
Trifolium palustre, see Marsh Trefoil					
Vinegar, see apples		from apple	1	0	—
Wake-Robin, see Arum					
Water Dock	Native	<u>Rumex aquaticus</u>	0	1	—
Wheat, juice of	Grown	<u>Triticum sp.</u>	1	0	+
Wine vinegar, see raisin		from grape	1	0	—
Winteran	Imported	<u>Drimys winteri</u>	0	1	—
Wood Sage	Native	<u>Teucrium scorodonia</u>	0	1	—
Wood Sorrel	Native	<u>Oxalis acetosella</u>	0	1	—
Wormwood	Native	<u>Artemisia absinthium</u>	0	1	—
Wort	Native	from yeast	0	2	—

Note. Data on Vitamin C content taken from VITAMINS, A Survey of Present Knowledge. Lister Institute and Medical Research Council, London. H.M.S.O., 1932. (MRC Special Report Series, No. 167). Table XIII.

0 indicates no Vit C present

- " no data found

CHAPTER IV

Domestic Remedies for Smallpox in Eighteenth Century Scotland.

Smallpox is a very ancient scourge of mankind. Now, thanks largely to vaccination and the efforts of the World Health Organisation, it is eliminated from most countries of the world, although still endemic in Ethiopia (1). Its exact date of origin in Europe is obscure, but it is thought to have occurred in Ireland as early as the eighth century (2). In modern terms, smallpox is known to be a virus disease caused by any one of three forms of pox virus. Infection with variola major results in severe smallpox, which even today has a mortality of 40% (3). Variola minor produces a less severe illness, rarely fatal, while vaccinia virus (cowpox) rarely produces systemic disease, and is not readily spread.

The earliest symptoms of severe smallpox - the so-called 'prodromal illness' - include "malaise, shivering, frontal headache, pain in the back, sore throat, cough and hoarseness of voice" (4). The accompanying fever is at first high, then falls, to peak again later in the illness. A marked rash at the beginning of the illness indicates a probably fatal case. Vesicles appear inside the mouth and nose; these later form shallow grey ulcers. The characteristic skin eruption appears usually on the second or third day of the illness. It consists at first of reddish papules, especially numerous on the head and limbs. These turn to vesicles or pustules; hard, round, pus-filled spots which easily become secondarily infected. Finally, the vesicles form scabs, which eventually drop off, leaving the pits or 'pocks' of smallpox.

The disease spreads by "droplet infection from the respiratory tract or by contamination with material from the skin lesions" (5).

Most deaths occur during the pustular stage, which is accompanied by the second attack of high fever (6).

There is no specific treatment for smallpox. General nursing care and scrupulous hygiene, especially of the mouth and nasal tract, can help in reducing the risk of death through secondary infection, such as pneumonia (7), while modern antibiotics can help in the fight against such secondary infections.

During the seventeenth and eighteenth centuries, smallpox was a killer of epidemic proportions. It has been estimated that sixty million people died of smallpox in Europe during the eighteenth century (8). Those that survived smallpox were frequently disfigured, sometimes blinded or maimed. Robert Knox (1791-1862), the famous anatomist, lost his left eye as a result of an attack of confluent smallpox when he was a child (9). It is not surprising that smallpox was a dreaded disease and much effort went into attempts to prevent and cure it.

Smallpox was chiefly a disease of young children, commonest in the under ten age group (10). Richard Pococke, in his 'Tour through Scotland', 1760 (11) comments

"The Small Pox indeed is rare among Adults, most people here have it commonly when they are young".

Chambers tells us that in December 1713

"It was remarked that an unwholesome air prevailed at this time, causing many hasty deaths, and favouring smallpox, of which eighty children died within a little time in Eglesham parish" (12)

In the anonymous log-book of an eighteenth-century surgeon-apothecary (13), we get this glimpse of the havoc wrought by an epidemic of small-

pox in the Edinburgh area in 1734:

"Jan. 26th Saturday, 1734 the smallpox had not as yet left us in this country they had been raging in Edr. for sometime past and very fatal to several viz three children of Mrs Wights three of Mr Mackys the professors, two of Mr Guild, three of Mr Barclays Sir James Stuart uncles. & Jamie Stuart Sir James's nephew also died etc Att Arniston Mr Dundass lost three children besides George who dy'd here & a young man he was thrice bled there also of twenty years of age dy'd also under the care of Dr Dundass att Newton a little town in the neighbourhood of Dalkeith there dy'd fourteen only out of a great number whereof none almost had any kind of physick or bleeding. Just now they are frequent at Cowdon a little town above this place, but in the town itself of Dalkeith they go on but slowly."

In the year 1740, statistics published by the Scots Magazine show that in the city of Edinburgh there were a total of 1240 deaths during the year, of which smallpox caused 274, that is to say about 22%. In many months during the year, smallpox was the largest single killer of the diseases listed. There was an average of 23 deaths per month from smallpox. The only other illness which approached these figures in the mortality tables was consumption (14).

Fergusson, in his book 'The Dawn of Scottish Social Welfare', gives some interesting figures for smallpox mortality in Scotland. For example, in the Edinburgh outbreak of 1740-2, out of a population of 40,000 there were 2,700 deaths from smallpox, more than half of these being children under five. In Kilmarnock during the period 1728-1763, one in six deaths were due to smallpox, whilst in Glasgow 19% of all deaths during the period 1775-1800 were caused by smallpox (15).

At Dalmailing in 1762

"the smallpox came among the weans of the parish and the smashing that it made of the poor bits o' bairns was indeed woeful" (16).

These various examples will serve to illustrate just how serious a problem was smallpox in eighteenth century Scotland. It therefore comes as no surprise to find that the remedies used were numerous and varied. In the early part of the century there was probably little to choose between the home remedies and the orthodox ones. None was really effective.

Christian Kilpatrick, wife of Sir John Clerk of Penicuik, wrote in 1699

"Jamie has taken the smallpox....I have sent in Sandy for some saffron and marigold for I have none. I give him marigold posset to drink,.....I will give him some saffron inwardly when it comes, in a spoonful of claret wine and bind some of it about his throat to prevent the soreness at it" (17)

John Pechey, M.D., in his 'Compleat Herbal of Physical Plants' (1694) spoke of saffron in the following terms:

"Tis much used to drive out the Small Pox; but, undoubtedly, it does many times much hurt, by inflaming the blood, and occasioning Frensiess, and making them Flux. But you may see at large the Mischiefs of hot Medicines and Methods, by Dr Sydenham's Treatise of the Small Pox and Measles, which I translated several years ago" (18).

John Clerk recorded in January 1715 how his son James

"fell ill of the smallpox, for hitherto he had continued free of them. We were in great anxiety about him, because of his weak constitution, and bad habit of body, but this went over in a few days, and he recovered, not only of this disease, but of several boyls and outbrakings with which he had been troubled. These were plainly owing to his nurse, whose milk, I am persuaded, was unsound, for most of all her children had the same troubles" (19).

In this case, no mention is made of any medication.

One gets the impression from looking at records early in the century, that smallpox victims, when they did survive, recovered despite, rather than because of, their treatment; or in some cases survived simply because they had no medication. The surgeon-apothecary near Dalkeith, to whom we have already referred (Page 66), noted that in the smallpox outbreak of 1734

"at Newton...there dy'd fourteen only out of a great number whereof none almost had any kind of physick or bleeding" (20)

Let us look now at some of the other home remedies for smallpox current in eighteenth century Scotland.

John Moncrief of Tippermalloch (minister), in the third edition (1741) of his book 'The Poor Man's Physician', offers a plethora of smallpox remedies, some of the ingredients of which figure in Pitcairne's prescription too (See page 73). Here are some of the treatments he recommends for smallpox and measles (which two diseases he lumps together):-

1. Many keep an Ewe or Wedder in their Chamber, or on the Bed; because these Creatures are easily infected, and draw the Venom to themselves
2. A Decoction of Barley, or of the Roots of Sorrel, or of Hart-Horn, is profitably used for Drink, in the Beginning of the Disease especially, and when the Fever is vehement; but if the Fever be not very violent, a Decoction of Barley and Figs will be very profitable, viz. effectually driving the Humours to the Skin.
3. Anoint the Eyes every Hour with Plantain or Rose-water, in which a little Saffron is dissolved, before the Pox begin to appear.
4. If any Pox appear in the Eye, Pigeon's Blood must be often dropt in

5. When the Eyes so swell that they cannot be opened, they must be often washed with a Decoction of Linseed, and so the Swelling will fall, and the Eyes open. And if, when the Eyes are opened, there appear Clouds in them, they must be scoured off with Sugar-candy finely powdered.
6. To preserve the Nostrils, they must often smell Vinegar
7. Take two Figs sliced, a Spoonful of Harts-horn bruised, a few Marigold flowers, and Tops or Leaves of Carduus benedictus, and a little Saffron, boil them in a Posset, and give the Patient to drink thereof (Note similarity to Christian Kilpatrick's remedy, see page 67)
8. Boil Milk, Saffron and English Honey together, and give the Patient to drink; let him be kept warm, and the Pox will come out speedily
9. For the Small Pox. To bring them forth, give the Patient a little English Saffron in warm Milk. Keep the Sick warm, and it will bring them out, and being come forth, take raw Cream and Saffron, beat them together, and anoint the Sores with a Feather, and it will heal them without Signs or Spots. Dr. Matthias. (21)

Some of Moncrief's suggestions appear in a very similar form in a little-known English book written by Mrs Jane Sharp, entitled the 'Compleat Midwife's Companion' (1724). This lady tells us

"The small Pox is dangerous to all, but most to those that are of an ill habit of body; and if they come forth in heaps and not orderly; or if they look blew, black or ill coloured, they are exceeding dangerous. If the child suck, the Nurse must use a moderate Diet; she may eat Hens Broth, with Herbs of Succory, Borrage, Bugloss and Endive boiled in it: Let her Drink this Drink following to make them come easily and quickly forth; take peeled Lentils half an Ounce, fat Figs two Ounces, Gum Lack two Drams, Gum Tragacanth and Fennel Seed of each two Drams and a half: boil this in fountain water, strain it, and sweeten two Pints of it with Sugar and Syrup of Maiden-hair, let her drink half a pint fasting. If the child be weaned, give it a Julep of Cordial Waters two Ounces and a half, Syrup of Lemons one Ounce, use this often; and four or five Hours after give it some

Unicorns-Horn and Oriental Bezoar in Powder.

To preserve the Eyes anoint the Eye-lids with Plantane and Rose water, and a little Saffron: To preserve the Nose take Rose water, and Bettony, of each one Ounce, Vinegar half an Ounce, and as much powder of peels of Citrons, add to it Saffron six grains, let the Child smell to it often; dip some Cotton in it, and stop to Ears to keep the Small Pox from thence. You may preserve the Mouth, the Tongue, and the Throat with a handful of Barley, and Leaves of Plantane, Sorrel, Agrimony, and of Vervain, of each a handful, all boiled in water to six Ounces, dissolve in it Syrup of Pomegranates, and of Roses of each half an Ounce, Saffron half a Scruple, make a Gargarisme: Syrup of Juniper, of Violets, and of water-Lillies preserve the Lungs.

When the Pox are fully out, then to make them die quickly rub the face with fresh Hogs-grease, old Lard melted, and strained, and mingled with Water, or with Oil of sweet Almonds." (22)

Lady Catherine Stewart, in 1730, recommended alum boiled in milk for smallpox blains (23). To "hinder the smallpox from pitting by stroaking the pustules as they come out", she suggested using General Wade's Admirable Balsam (containing Balsam Peru, Storax Calamis, St. John's Wort flowers, Benjamine, Sweet Almonds, Frankincense, Angelica roots, all infused in spirit of wine) (See also Table I and note on Wade's Balsam, page 173).

For those who survived smallpox, the disfigurement produced by the poxholes was often serious:

"In the natural smallpox, how often are the finest features, and the most beautiful complexions, miserably disfigured?"

wrote Dr Mackenzie, in his 'History of Health' (24). Moncrief has these cosmetic suggestions for smallpox scars:

"Oyl of Egg-yolks doth nourish and engender Skin, and therefore is very convenient to fill the Poxholes. Wedder's sewet fresh

and new, molten and done out with a feather, is effectual to the same purpose" (25)

Alternatively, Moncrief suggests

"To hinder Dinting or Marks of the Pox: Take Beef-broth, and bathe the Scabs therewith; afterward take the Fat of Calves-feet, boiled and beaten white with May-dew and Rose-water. Anoint the Face therewith. Or, take white Wine and Butter, of each a Quarter of a Pound; boil them together and bathe the Face often. Or, melt salt Butter, put into cold Water, and so anoint the Face withal." (25)

Jane Sharp, in her book on midwifery, suggested

"When the Pox are dead, and begin to fall away, to keep them from Pock-holes anoint the Face with a Feather dipt in an Ointment made of Chalk and Cream, use this two or three days, it will smooth the skin handsomely, and take away the spots" (26).

The suggestion by both Moncrief and Sharp of using cream and various other animal fats for helping the skin to heal is interesting. Lard still to-day forms the basis of many cosmetic skin creams.

Reviewing these various home remedies for smallpox, several important points emerge. One obvious point is that none of the remedies suggested was likely to be curative; this is hardly surprising when one considers that even today there is no specific curative treatment for smallpox. The saffron used by Christian Kilpatrick, and recommended by Jane Sharp and by Moncrief, is derived from Crocus sativus L. Taken internally, it stimulates the appetite, and is sedative, but in higher doses "can be toxic and lethal, causing violent haemorrhages" (27). It also induces sweat (28). William Buchan, M.D., as well as Pechey (See page 67) strongly objected to its use in smallpox (see also page 86), and there was probably justification for their objections.

With this possible exception, the various ingredients of the home remedies for smallpox will have done more good than harm. Examination of Table II (page 97 ) will show that many of the components are soothing, and some even have definite vulnerary (i.e. wound-healing) effects, e.g. Benjamine, St John's Wort, or anti-inflammatory action, e.g. Plantane. Benjamine, a component of Wade's Balsam, has in addition a known anti-septic action (29), whilst the vinegar recommended to 'preserve the nose', by both Sharp and Moncrief, has a definite antibacterial action (30).

The home remedies mentioned so far are summarised in Table I. A consideration of this data, especially taken in conjunction with Table II, shows that the majority of them are surprisingly sensible, and would at least make the patient feel better, and help in combating the secondary infection that was and is so often the cause of death from smallpox.

Sharp's suggestion that the diet of the nurse would directly affect the breast-fed child suffering from smallpox is interesting: one can only speculate on which, if any, of the ingredients would in fact reach the child via the nurse's milk. At least one of the herbs mentioned in this connection (fennel) is now known to be galactogenic, i.e., it stimulates milk production (See Table II, page 97).

Now let us consider for a while the orthodox medical treatment for smallpox in Scotland at the beginning of the eighteenth century.

Sydenham (1624-1689) was ahead of his times in the treatment of smallpox as well as many other diseases. He treated ship's surgeon Thomas Dover (1660-1742) during an attack of smallpox

"with no fire in the room, the windows constantly open, the bedclothes no higher than the patient's waist and 'twelve bottles of Small Beer every twenty four hours'" (31).

John Clerk in his Memoirs relates how Boerhaave (a personal friend), treated him at Leyden in 1697:

"Perhaps I trusted too much to his skill when I happened to take the Smallpox at Leyden in May 1697: he pretended that he had discovered a chymecal Medicine which wou'd carry off the small-pox before they came to any height.

I suffered him to try his medicine upon me after the small pox were broken out on my body, the effect was that in a day or two they were all purged off.....but, to my very great misfortune, this Disease returned upon me about five months after with great violence" (32)

It would be of interest to know what was Boerhaave's "chymecal" medicine, and whether indeed Sir John was genuinely suffering from smallpox in May.

The eminent Dr Archibald Pitcairne (1652-1713), proposed a smallpox regime, originally prescribed for the Honourable family of March in 1704. This regime, despite (or because?) of its complicated nature, achieved some fame. It appears among the Clerk of Penicuik papers (33), and also in an Appendix in John Moncrief's third edition (1731) of the 'Poor Man's Physician'. It is quoted here in full, since it is one of the few accounts of orthodox medical treatment for smallpox early in the eighteenth century in Scotland;

The Method of curing the small Pox, first written in the Year 1704. for the Use of the noble and honourable Family of March, by Dr. Archibald Pitcairn.

1. If a Child, or any Person, grow sick, feverish, or has pain in the Back, or Slot of the Breast, Loss of Appetite, Drowsiness, short Cough,

Sneezing, watry Eyes, or some of these; but always accompanied with some Heat, and frequent Pulse, or Drowth: In this Case Blood is to be taken at the Arm, or with Loch-leeches; and if the Fever ceases not, tho the Pox appear, let Blood a second or third Time; mean time give the Child a Spoonful of Syrup of white Poppies at Night, and in the Night-time, ay till Sleep or Ease comes.

2. After the Pox appears, and Fever is gone, then steep an Handful of Sheeps Purles in a large Mutchkin of Carduus-water, or Hyssop-water, or Fountain-water, for five or six Hours; then pour it off without straining, and sweeten it with Syrup of red Poppies. Give of this a Spoonful or two, everyfourth or fifth Hour, to make the Pox fill, and preserve the Throat. Always at night-time, and in the Night, give a spoonful or two of the Syrup of white Poppies for a Cordial: That keeps down the Fever, and keeps up the Pox.

3. If the Pox run together in the Face (which is the only Thing that brings Hazard) use the Infusion of the Purles, and the Syrup of white Poppies oftner than in other Cases; also about the eighth Day from the appearing of the Pox, or a little before that, give the Child to drink of Barley-water, sweetned with Syrup of white Poppies; this will make the Child spit, which saves the Child.

4. The Child's Drink may be Milk and Water at other times, or Emulsion, but use the first rather.

5. Apply nothing to the Face.

6. Use no Wine, or winish Possets.

7. If any Looseness comes before the fourth Day of the Eruption, stop it with Syrup of Poppies, and five or seven Drops of liquid Laudanum, given now and then till it be stopt.

8. Let the Child's Diet be all along a thin Bread-berry in the Morning, a weak Broth, and soft Bread for Dinner, and Milk and Bread at Night, or Sugar-bisket and Milk, and, about the fifth Day from the Eruption, give the Child Groat-broth sometimes.

Nota. If at any Time the small Pox disappear, with a Raving before the fifth, sixth, or eighth Day from the Eruption, then let Blood again, and apply a large blistering Plaister between the Shoulders, and give an Emulsion.

2. If the small Pox fall down without Raving, then apply a blistering Plaister large between the Shoulders, and give an Emulsion, and boil in a Gill of Water, and as much white or red Wine, Half a Dram or a Dram of Zedoary-root sliced, two Figs, and two Scruples of Theriac or Diascordium; sweeten it with Syrup of Kermes and white Poppies, each half an Ounce.

3. In the End of the Disease, that is, about the 10, 11, 14 &c. Day, after the Eruption, if the Child's Defluxion is gross, either apply a new Vesicatory, or give often the Spirit of Hart-horn, in Syrup of Violets, or a Vomit.

Lastly, when the Pox is black<sup>ened</sup> sufficiently, or about the 14 Day from the Eruption, let the Child drink Whey, eat pottage, &c. Broth with Prunes, unless the Child's Belly is open enough of it self.

But if the Child is so young or unlucky as not to cough heartily, and force up the Defluxions; or if the Frost thickens it, apply to the Slot of his Breast, a Pultis of Theriac, Diascordium, Alkermes, Oyl of Rosemary, and Cinnamon with warm Claret, in a double linen Cloth often.

2. And to the Throat apply, in a double linen Cloth, a Pultis of Cow's Dung boiled with Milk and soft white Bread: Put a little Brandy to as much as you apply at a Time.

3. For the Defluxion also give inwardly some of this, which has a Dram of Sperma Ceti, well mixt in a glass Mortar (not a brass one) with fine sugar; to which add at leisure Syrup of Violets or Balsamic, or Poppy Syrup, with some Spirit of Hart-horn.

If the Pox was confluent or run together on the Face, then, after the Person is recovered, give a Purgative, to bring away the Remainder of the Pox within the Guts. (34)

Pitcairne's description of the symptoms of smallpox has a remarkably modern ring. Compare it, for instance, with the account given in a modern textbook of medicine (See Page 64). His elaborate regime of treatment can be summarised as bleeding, administration of sedatives, a light diet, and a purgative at the end of the illness. One feels that the small patient would need to be strong indeed to survive the entire barrage of medicines and bleedings.

The Edinburgh Materia Medica of 1744 recommends purging, vomitics, bleeding and bezoar in the treatment of smallpox (35). Eighteenth century purges were often very drastic, as in the case of Lord Dalziel quoted on page 83, and, combined as they often were with bleeding and vomitics, must have weakened the patient considerably.

We meet the poultice of theriac again as a treatment for smallpox in the diary of George Ridpath. This eighteenth century minister records the case of a little boy treated for smallpox with a poultice of theriaca and frequent sips of light wine. The patient recovered, though his sister Nancy died (36). There were various forms of Theriaca in use in the eighteenth century. All contained a multitude of ingredients, eg Electuarius Theriacale Magnum contained 61 different plant species! (37)

It is of course difficult to know how many of the more bizarre and complicated remedies for any disease were actually used in practice. Such eighteenth century case notes as do exist therefore have particular interest. In an anonymous log-book kept by a surgeon-apothecary in the Dalkeith area, there are several cases of smallpox recorded (38). Maysie Hislop, aged six, was given a rue and saffron cataplasm at the throat, and syrup of poppies at night. Most of this doctor's patients were given purges, and were bled. The case of the seven-year-old Lord Boyd is quoted by Drummond, and seems typical. This lad survived, despite bleeding, vomitics and drastic purges. However, "Sir Wm Cockburn's sone Markey" who was "twice bled in the beginning and once vomited....purged with a ptisan of tamarinds and senna on the 8th day. Dy'd on 10th or 11th day very suddenly". (39).

One gets the impression that those victims of smallpox who did recover, survived despite rather than because of their medication.

There seem to have been no clear-cut theories of the causes of smallpox, though various symptoms were regarded as particularly dangerous. Pitcairn evidently regarded the running together of spots on the face as a dangerous symptom (See page 74). An anonymous doctor's manuscript, among the Hamilton-Dalrymple family papers, gives some interesting observations on smallpox:

"Smallpox      Bocking, running at the nose and eys in ye Small pox mortal.

In the small ye year 37 (i.e. 1737) the children were often too cold rather than too warm before ye eruption"

Elsewhere, under the heading "Assa foetida", the same author states:

"Mr Wight's child got it (i.e. Assa foetida) in ye small pox on the 7th day in order to raise a pale flat pox but without success".

Under the heading Cortex Peruvian (i.e. Cinchona, the source of quinine) the author recommends:

"The Cortex to be trayd in the putred fever after the Smallpox 3 or 4 days after ye Blackning"

We are also told that

"There is no judging of the event in Small Pox before the eruption. Its altogether uncertain whether bleeding before the eruption be useful or not"      (40)

Several interesting points emerge from these comments. The author's reference to children "being too cold" before the eruption probably refers to the drop in fever now recognised as part of the course of the disease (See above, Page 64). The questioning of the value of bleeding is interesting too, since as we have seen this was normally regarded as

an automatic part of the treatment for smallpox.

It is apparent from these examples that the treatment for smallpox early in the eighteenth century was empirical and fairly random, with even the experts disagreeing. The picture was, however, soon to be revolutionised by the advent of inoculation for smallpox.

It is difficult to fix precisely the date at which inoculation was first practised in Scotland. As early as 1715, Kennedy ("Med.chir.") in his "essay on External Remedies" describes inoculation as practised in Turkey and

"also in some parts of the Highlands of Scotland, where they infect their Children by rubbing them with a kindly Pock, as they term it" (41)  
One modern author has claimed that this does not refer to smallpox (42).  
Tait, however, believes that it does (43).

The credit for introducing inoculation into Britain is usually given to Lady Mary Montagu Wortley, wife of the British Ambassador in Turkey. In 1717 she wrote from Constantinople to her friend Sarah Chiswell:

"Apropos of distempers I am going to tell you a thing that I am sure will make you wish yourself here. The smallpox, so fatal, and so general amongst us, is here entirely harmless by the invention of ingrafting, which is the name they give it. There is a set of old women who make it their business to perform the operation every autumn in the month of September, when the great heat is abated. People send to one another to know if any of their family has a mind to have the smallpox; they make parties for this purpose and when they are met (commonly fifteen or sixteen together) the old woman comes with a nut-shell full of the matter of the best smallpox and asks what veins you please to have opened. She immediately rips open that you offer her with a large needle (which gives you no more pain than a common scratch) and puts into the vein as much venom as can be upon the head of her needle, and after binds up the little wound with a hollow bit of shell; and in this way opens four or five veins.....The children or young patients play together all the rest of the day, and are in perfect health to the eighth.

Then the fever begins to seize them, and they keep their beds two days, very seldom three. They have very rarely above twenty or thirty (pocks) in their faces, which never mark; and in eight days' time they are as well as before their illness.....I am patriotic enough to take pain to bring this useful invention into fashion in England; and I should not fail to write to some of our doctors very particularly about it, if I knew any one of them that I thought had virtue enough to destroy such a considerable branch of their revenue for the good of mankind" (44)

Lady Mary had her own son successfully inoculated in Turkey and on her return home persuaded the Princess of Wales to have her children inoculated, after it had been successfully tried on six condemned criminals in London (45).

Despite its high success rate, the practise of inoculation was adopted only slowly. Chambers tells us that during the first eight years after Lady Mary's introduction of the practice into Britain, only 897 persons were inoculated in Britain, of whom 17 died, a very much lower mortality than for natural smallpox (46). Miller attributes the slow acceptance of inoculation in England to the fact that "There were no widespread epidemics between 1725 and 1746" (47). However, this was not true of Scotland, as the mortality figures quoted on page 66 show.

Some of the reluctance to accept the practice was based on religious misgivings. The eighteenth century Quaker, John Woolman, called smallpox "a messenger from the Almighty" (48). At least some of the Scottish ministers were more enlightened and were "strong advocates of the measure" (49). In the Scots Magazine for 1750, inoculation is defended on theological grounds by a Mr David Some of Harborough (50). In 1751, in the same magazine, the following poem appeared:

On the Small Pox. Inoculation recommended.

"Insatiate fiend! thy purple slaughter cease;  
Let realms revive, and nations taste of peace...  
To human skill, the happy means are known.  
The life-informing, life-preserving pow'r  
Invoke, this soft celestial balm to pour;  
Then act as art, and wisdom shall design,  
And leave the rest to providence divine."

(51)

Sir John Clerk, writing in 1746, discusses inoculation in relation to the children of his son George:

"Inoculations of this kind were common in that place" (i.e. Dumfries) and not one of a hundred died. Some complained of this practise, but I know not why it may not be as lawful and expedient to prevent a disease as to endeavour to cure one.....However, I wou'd never advise to inoculat for the smallpox any but strong and seemingly healthy children; weak ones may probably die" (52).

Nowhere is the overlap between home and orthodox medicine during the eighteenth century in Scotland more clearly seen than in inoculation for smallpox. The practise in Turkey was carried out by 'old women'; likewise, in the Highlands it was a lay affair. Soon in Britain, those ministers who spoke out in favour of the practice were even prepared to carry out the inoculation themselves. Tait tells us that

"Many ministers were strong advocates of the measure and owing to the dearth of physicians, often performed the operation before sermon"

(53)

William Buchan, M.D., the great exponent of domestic medicine in eighteenth century Scotland, tried very hard in his book "Domestic Medicine" to preach the gospel of inoculation, and encouraged the clergy

to promote it, since they had wide influence:

"Most of them know something of medicine. Almost all of them bleed, and can order a purge, which are all the qualifications necessary for the practice of inoculation" (54)

If no-one else were available, Buchan recommended parents and nurses to inoculate young children. He relates how he ordered the nurse to inoculate his own son, then an only child. The operation was successful.

Buchan goes on to tell us

"The numbers who die under inoculation hardly deserve to be named. In the natural way, one in four or five generally dies; but by inoculation, not one of a thousand. Nay, some can boast of having inoculated ten thousand without the loss of a single patient"

In enumerating the advantages of inoculation, Buchan quotes from Dr Mackenzie's History of Health:

"Many and great are the dangers attending the natural infection, from all of which the inoculation is quite secure. The natural infection may invade weak and distempered bodies, by no means disposed for its kindly reception. It may attack them at a season of the year either violently hot or intensely cold. It may be communicated from a sort of small-pox impregnated with the utmost virulence. It may lay hold upon people unexpectedly, when a dangerous sort is imprudently imported into a maritime place. It may surprise us soon after excesses committed in luxury, intemperance, or lewdness. It may likewise seize on the innocent after indispensably watchings, hard labour, or necessary journies. And is it a trivial advantage that all these unhappy circumstances can be prevented by inoculation?"

(54)

Evidently Buchan achieved some success in persuading his public to accept inoculation, for in the (undated) preface to a late edition of his book (1806) we read:

"Few mothers, some years ago, would submit to having their children inoculated even by the hand of a physician; yet nothing is more certain, than that of late many of them have performed the operation with their own hands; and as their success has been equal to that of the the most dignified inoculators, there is little reason to doubt that the practice will become general. Whenever this shall be the case, more lives will be saved by inoculation alone, than are at present by all the endeavours of the Faculty" (55).

The College of Physicians of Edinburgh in 1754 spoke out in favour of inoculation, claiming that it was

"highly salutary to the human race" (56)

However, whether or not inoculation for smallpox was in fact beneficial during the eighteenth century is still, to this day, a matter of dispute. Conflicting contemporary accounts allow of several different interpretations. This is indeed a general historical problem, as pointed out by Miller (57) in her article "Relativism in the History of Smallpox Inoculation". King compares historical writing to photography; both purport to record facts, but the results depend on which subjects are selected (58).

Some authors claim that inoculation actually increased the incidence of smallpox because inoculated patients could themselves spread the disease (59). Dr Cowan argues from a study of the Glasgow Bills of Mortality that inoculation increased the absolute mortality from smallpox, since it kept the disease current all the time (60). Likewise, Sir Thomas Watson claims that inoculation increased the absolute mortality from smallpox (61). Razzell, on the other hand, claims that inoculation did reduce the incidence of smallpox (62).

The eighteenth century Dr James Jurin, secretary to the Royal Society, attempted a statistical survey of the results of inoculation in the 1720's. His results showed a decreased mortality for inoculated persons, compared with cases of natural smallpox (63). However, this does not necessarily indicate that inoculation decreased the incidence of the disease.

Whatever its advantages and disadvantages, the practice of inoculation was eventually widely accepted during the eighteenth century. Controversy continued concerning the best method of preparing the patient for inoculation. Buchan claimed that preparation was relatively unimportant, but suggested, like Sir John Clerk (see above, page 80), that the child should be healthy when inoculated, and also gently purged. Some exponents of inoculation gave very complicated instructions for preparing the patient.

In the fascinating anonymous Dalkeith log-book we read:

"There was a difference of opinion about this time among physicians about preparation by purging with Rhubarb and Merc. dulcis vomiting and bleeding against the Sm. Pox this was advised by Dr Stevenson as his ordinary practise even with his own children but strenuously opposed by Dr Sinclair who only advised instead of other preparations a light diet and abstinence from flesh because he alledged he had seen instances of some thus prepared by purging who had afterwards appear'd to be seiz'd with the Sm Pox att the same time and had proved of very dangerous and fatal consequence. however by the joint advice of Dr Cochran I gave my Ld Dalziel 16 grains of Rhubarb and...Jalapp and 3 grains of mercury this swallow'd in a wafer made his stomach at first very sick without purging but at length purged no less than eleven times in a very short space and even caused him vomit his dinner however by drinking tea and milk and water in the afternoon he perfectly recover'd without any bad consequence" (64)

My Lord Dalziel must have had a strong constitution to have survived unscathed this drastic preparation for inoculation! By present-day standards, the doses of purges he was given are enormous.

The same anonymous medical author gives an interesting list of "the peculiar advantages of the Inoculated SmPox above those catch'd by infection", namely

1st that you can give them to one who is well prepar'd beforehand and has the prima viae well clean'd tho it is by no means proper to have the body much drain'd or Spirits exhausted by much purging

2dly you can chuse a time of the year which is most favourable

3 you can chuse a good pock

4 we have some reason to believe from the success an argument which the Inoculators bring themselves that this way of communicating the venom gradually to the whole body by the gross arterial or venal blood is not so dangerous as when it is got by ordinary infection being then communicated as they suppose to the nerves themselves at first which occasions a greater struggle with nature and more terrible orgasms/disorders of the spirits" (65)

Point number One is somewhat ironical in view of the preparatory treatment meted out to Lord Dalziel!

The actual method of inoculation varied according to the operator. In some cases, scabby material from the pocks was inserted into a vein. Others used a piece of cotton thread dipped in a pustule and bound to the arm of the person to be inoculated. Buchan was of the opinion that either method was acceptable.

Inoculation may well have reduced the mortality from smallpox, by selecting out the less virulent strains. There was undoubtedly variation in the severity of the forms of this disease. For example, the Scots Magazine for February 1752 records that

"The small pox continued to be the principal epidemic of the season, though in general of a benign kind. Children and young persons, unless the constitution is very unfavourable, get through it very well; and the height to which the weekly bills are swelled, ought to be considered in this case as an argument of the frequency, not fatality of this distemper. For from what has occurred to the writer of these observations, as well as what he has been able to learn from some of the oldest practitioners, this disease has seldom, if ever, been known to be more general, or so mild and favourable, as it is at present.

The practice of inoculation seems to gain ground considerably." (66)

Contrast this with the account that appears in the same magazine for October 1754: the author refers to a vicious outbreak of smallpox in the Edinburgh area,

"the worst kind that has appeared for years....patients seldom surviving the fourth or fifth day from the eruption" (67)

The evidence concerning whether or not inoculation reduced the eighteenth century mortality from smallpox is thus conflicting, and the issue may never be resolved entirely satisfactorily. It is clear, however, that inoculation did little to reduce the incidence of the disease, which continued to be a scourge throughout the rest of the century.

Treatment of smallpox, whether 'natural' or a result of inoculation, did not progress very much in the course of the century. Buchan recommended a relatively enlightened regime for the patient, with little stress on medicines. During the fever

"keep the patient cool and easy, allowing him to drink freely of some weak diluting liquors; as balm tea, barley-water, clear whey, gruels etc"

Do not, says Buchan, force the patient into a sweat (advice reminiscent of John Pechey's in 1694, quoted above, see page 67):

"The good women, as soon as they see the small pox begin to appear,

commonly ply their tender charge with cordials, saffron and marigold-teas, wine, punch and even brandy itself"

Buchan recommends clean linen, and keeping children in separate beds.

He has this advice regarding diet during the illness:

"The food in this disease ought to be very light, and of a cooling nature, as panado, or bread boiled with equal quantities of milk and water, good apples roasted or boiled with milk, and sweetened with a little sugar, or such like.

The drink may be equal parts of milk and water, clear sweet whey, barley water, or thin gruel, etc. After the pox are full, buttermilk, being of an opening and cleaning nature, is a very proper drink."

Buchan recommends little by way of medicine; clysters are to be used "if the body is bound". Bleeding may be necessary. In cases of "excessive restlessness" gentle opiates are recommended: to an infant, a tea-spoonful of the syrup of poppies may be given every five or six hours until it has the desired effect. The bladder and bowels must be kept open, and sweet spirits of nitre used if necessary to combat urinary retention. (68)

Buchan was remarkably enlightened in his views, and his advice is full of common sense. As we have seen, not all physicians were as gentle in the treatment they recommended.

We have traced the introduction of inoculation into Scotland, with its possible reduction in smallpox mortality. The next major advance in the history of the disease was the discovery of vaccination and its promulgation by Gloucestershire Doctor Edward Jenner. A chance remark of a dairymaid, that since she had had the cowpox she could not catch the smallpox, set Dr Jenner thinking about the possibilities of inoculation with cowpox. This was a less serious disease than smallpox, rarely if ever proving fatal. After much thought

and discussion, Jenner decided to try an experiment, and in 1796 inoculated Alan Phipps, aged 8 years, with pus from the hand of a dairymaid suffering from cowpox. The boy developed cowpox. Eight weeks later he was inoculated with smallpox and no disease appeared. The experiment was repeated on others with great success. Jenner published his findings in 1799 in "An Inquiry into the Causes and Effects of the Variolae Vaccinae, a Disease discovered in some of the Western Counties of England, particularly Gloucestershire, and known by the Name of the Cow Pox". The book was reviewed in the Scots Magazine for January 1799 :-

"The grand point, however, of this distemper" (i.e. cow-pox) "is, that persons who have had the cow-pox, and who have not had the small-pox, are rendered incapable of taking the latter.....

The immediate application of it" (the discovery) "is, plainly, to inoculate for the cow-pox instead of the smallpox; and the advantages of this new mode are:

1) No person dies of the cow-pox; 2dly, It produces no eruption except on the parts inoculated; 3dly The fever is slighter, for the most part, than in the inoculated small pox; 4thly It is not probable that any other disease is excited by the cow-pox, as is the case in certain constitutions after the smallpox." (69)

In the March 1799 issue of the same magazine, there is an article entitled "Extirpation of the Smallpox" in which we are told

"Professor Faust, of Buckeburg, in Westphalia, is said to be occupied in a plan for the entire extirpation of the small-pox. He considers it as a simple epidemic disease, whose duration and prolongation are the effect only of ignorance in the people, and indifference in governments, and that it ought to be made to disappear like leprosy.... While we must applaud these benevolent schemes forming on the continent, we must at the same time congratulate the good fortune of this island, in being the seat of a discovery which will, perhaps, effect more towards eradicating the smallpox than all the well meant

projects of the German professors. In our Number for January.. we gave a short account of this discovery of inoculation with Cow Pox, from the treatise of Dr Jenner. Recent and numerous experiments made by the most eminent of the faculty in London, tend to confirm the efficacy of the Cow Pox, as a means of extirpating that horrible scourge of the human race, the Small Pox. Several hundred individuals have recently been inoculated for this new disease in the metropolis, and they have all taken it, and recovered from it in a few days, without its being attended with any illness, other than a few pustules which have appeared in the arm: these persons have since been repeatedly inoculated with the variolous matter of the smallpox, but without effect; several of them have even slept in the same bed with persons in the most infectious state of the latter disorder, but without being in any degree affected by it." (70)

Here at last was an effective weapon against smallpox. Jennerian vaccination was open to few of the criticisms of inoculation with smallpox, and its acceptance made steady progress.

Eighteenth century physicians were agreed that cowpox was a milder disease than smallpox, and did convey immunity to the latter (71). A London surgeon, W. Woodville, published in February 1800 his findings that, for vaccination, 150 out of 1,000 patients developed pustules and none became seriously ill, whereas for inoculation, more than 800 out of every 1,000 developed pustules:

"It follows the cowpox is milder than the inoculated smallpox." That vaccination is effective is illustrated by the fact that "upwards of 1,000 of my patients, who had undergone the cowpox, have been inoculated with variolous matter, yet none of them took the smallpox" (72).

In July, 1799, Dr Thomson wrote to the Scots Magazine expressing the view that the cow pox

"is the small pox, moderated by passing through the medium of a quadruped" (73).

Unlike inoculation which , at least in Scotland, was as much a lay affair as a medical one, vaccination seems to have been largely undertaken by members of the medical profession. Special institutes were set up in London for vaccination (74).

The subsequent history of the acceptance of vaccination throughout Britain belongs strictly in the nineteenth century, but even by the close of the eighteenth century in Edinburgh

"the cases" (of vaccination) "have been numerous, and for the most part successful" (75)

Physicians were prepared to vouch for its value. Lawrence points out that William Buchan gave vaccination a cautious welcome in the 1803 edition of his "Domestic Medicine", and included a discussion of it in his 1809 edition (75).

It has been pointed out (see pp82, 84, 85), that the contribution of inoculation in reducing the incidence of smallpox in eighteenth century Scotland is dubious. However, the introduction of Jennerian vaccination in the late eighteenth and early nineteenth centuries brought an undoubted and very dramatic reduction in mortality from smallpox. In 1804 in Glasgow, 25% of all deaths under the age of five were due to smallpox. In 1805, a mere 6% were attributable to smallpox (76).

Razzell has recently claimed that inoculation did reduce the incidence of smallpox, and, further, that

"vaccination is a more attenuated form of the eighteenth century practice of inoculation" (77).

However, his opinions are not shared by others, such as Professor Downie, an acknowledged expert in this field (78). Schuster (79) points out that, although available statistics cannot give conclusive evidence, the overall picture in England is not one of reduction in smallpox until the

post-Jennerian epoch. Baxby (80) refutes on virological grounds Razzell's suggestion that vaccination is an attenuated form of inoculation. Certainly, the history of smallpox in Ethiopia (81) shows that there was no dramatic decrease in the disease until Jennerian vaccination was introduced there in the second half of the nineteenth century. It seems that Jenner's great contribution in spreading the practice of vaccination cannot be gainsaid.

By the end of the eighteenth century, thanks to Jennerian vaccination, smallpox in Scotland was changing from a terrifying scourge with high mortality, to an avoidable illness. Incidentally, the history of both inoculation and vaccination illustrate very clearly the benefits that could accrue from co-operation between the orthodox medical men and the exponents of home remedies.

REFERENCES.

- (1) Davidson's Principles and Practice of Medicine. Ed. J. Macleod Twelfth Edition. Livingston, Edinburgh, 1977, p.85
- (2) Mullett, Charles F. A Footnote to a History of the Small Pox Bull. Inst. Hist. Med. XIII 1943, 487-494.
- (3) Davidson's Principles and Practice of Medicine, see (1)
- (4) Ditto
- (5) Ditto
- (6) Houston, J.C., Joiner, C.L. & J.D. Trounce A Short Textbook of Medicine. Fifth Edition. Hodder & Stoughton, London, 1977, p.512.
- (7) Davidson's Principles, see (1)
- (8) Parish, H.J. A History of Immunization. Livingston, Edinburgh 1965, p. 20.
- (9) Comrie, John D. History of Scottish Medicine. 2 vols. Wellcome Historical Museum, London, 1932.
- (10) Tait, H.P. Notes on the History of Paediatrics in Scotland. Ed.Med.J. LVIII, 1951, p.180
- (11) Tours in Scotland 1747, 1750, 1760 by Richard Pococke, Bishop of Meath. From MS in British Museum. Ed. D.w. Kemp. Printed by Constable for Scottish History Society, Edinburgh, 1887, p.303.
- (12) Chambers, R. Domestic Annals of Scotland from the Revolution to the Rebellion of 1745. Third edition. Chambers, Edinburgh, 1874. Vol III, p.387.
- (13) National Library of Scotland, MS Dept. MS 3774  
Referred to by C.E. Drummond in "According to Art", Presidential Address to Scottish Society for History of Medicine, 1974.
- (14) Scots Magazine, Vol 2. Mortality Tables, January-December 1740
- (15) Ferguson, T. The Dawn of Scottish Social Welfare. Nelson. 1948.

- (16) Galt, quoted by Tait, see (10) above
- (17) Scottish Records Office, Edinburgh. SRO GD 18/5219  
Quoted by Rosalind K. Marshall in 'Childhood in Seventeenth Century Scotland.' Trustees of the National Gallery of Scotland. Edinburgh 1976.
- (18) Pechey, John The Compleat Herbal of Physical Plants. Printed for Henry Bonwicke, London, 1694, p.162.
- (19) Memoirs of the Life of Sir John Clerk of Penicuik, Baronet, Baron of the Exchequer. Extracted by Himself from his own Journals 1676-1755. Edited from the Manuscript in Penicuik House, with an introduction and notes by John M. Gray. Edinburgh. Scottish History Society Vol. XIII, 1892, page 86.
- (20) National Library of Scotland MS 3774, see (13) above
- (21) The Poor Man's Physician or the Receipts of the Famous John Moncrief of Tippermalloch. Third edition, Edinburgh, 1731.
- (22) The Compleat Midwife's Companion: Or the Art of Midwifry Improv'd by Mrs Jane Sharp, Practitioner in the Art of Midwifry above Forty Years. London, John Marshall, 1724. Pages 240-241.
- (23) Scottish Records Office, Edinburgh. Broughton Cally Papers. SRO GD 10/911
- (24) Quoted by Buchan, William in Domestic Medicine, third edition, London, 1794. Footnote, page 250.
- (25) A Poor Man's Physician, see 21.
- (26) The Compleat Midwife's Companion, see 22.
- (27) Schauenberg, P. & F. Paris Guide to Medicinal Plants. Lutterworth Press, London, 1977. Page 231.
- (28) Potter's New Cyclopaedia of Botanical Drugs and Preparations. By R.C. Wren. Eighth edition. Health Science Press, Devon, 1975.
- (29) Fluck, Professor Hans Medicinal Plants. Translated by Professor J.M. Rowson. W.Foulsham & Co.Ltd., Slough, 1976.

- (30) Lelord Kordel Natural Folk Remedies. W.H. Allen, London, 1975.
- (31) Guthrie, Douglas A History of Medicine. Nelson, London, 1945  
Page 203.
- (32) Memoirs of Sir John Clerk of Penicuik, see 19.
- (33) Scottish Records Office, Edinburgh. Clerk of Penicuik Papers.  
SRO GD 18/2125
- (34) A Poor Man's Physician, see 21. Pages 241-244.
- (35) Graham, H.G. The Social Life of Scotland in the Eighteenth  
Century. Black, 1909.
- (36) Diary of George Ridpath, Minister of Stichel, 1755-1761.  
Edited with Notes and Introduction by Sir James Balfour Paul.  
Edinburgh. Constable. Scottish History Society. 1922. Page 285.
- (37) Wootton, A.C. Chronicles of Pharmacy. 2 vols. Macmillan. London  
1910. Vol II, page 38.
- (38) National Library of Scotland, MS 3774, see 13 above
- (39) Drummond, C.E. According to Art. Presidential Address, Scottish  
History Society, 1974.
- (40) Scottish Records Office, Edinburgh SRO GD110/1178
- (41) Kennedy, P. Essay on External Remedies, 1715  
Quoted by Tait, H.G. in Ed.Med.J. LVIII, 1951, page 182.
- (42) Stearns, R.P. and G. Pasti Remarks upon the Introduction of  
Inoculation for Smallpox in England. Bull.Hist.Med. XXIV, 1950  
pages 103-122
- (43) Tait, H.P. Notes on the History of Paediatrics in Scotland.  
Ed.Med.J. LVIII, 1951, pages 180-189.
- (44) Walker, Kenneth The Story of Medicine  
Page 245.
- (45) Guthrie, D. History of Medicine, see 31.

- (46) Chambers, R. Domestic Annals of Scotland, see 12.
- (47) Miller, G. The Adoption of Inoculation for Smallpox in England and France. Univeristy of Philadelphia, 1957  
Quoted by W.R. Le Fanu in The Lost Half Century in English Medicine 1700-1750. Bull.Hist.Med. 46, 1972, pages 319-348.
- (48) Masback, F.J. The Economics of Evil, a Study of John Woolman's Thought, Philadelphia, 1958  
quoted by Ann Beck in Issues in the AntiVaccination Movement in England. Hist.Med. 4, 1960, pages 310-321.
- (49) Tait, H.G. see 43.
- (50) Scots Magazine Vol XII, 1750. Page 580
- (51) Scots Magazine, Vol XIII, 1751, page 96.
- (52) Memoirs of Sir John Clerk, see 19.
- (53) Tait, H.G. see 43
- (54) Buchan, William Domestic Medicine. 3rd Edition, London, 1774  
Chapter XXIII
- (55) Ditto, 1806 edition.
- (56) Quoted by Ferguson, T. see 15.
- (57) Miller, Genevieve Relativism in the History of Smallpox Inoculation.  
Bull.Hist.Med. XXX, 1956, page 39.
- (58) King, L.S. The Medical World of the Eighteenth Century.  
University of Chicago Press, 1958.
- (59) Parish, H.J. History of Immunization, page 23. See 8 above.
- (60) Cowan, R. Remarks suggested by the Glasgow Bills of Mortality 1832, quoted by Ferguson, T. see 15 above.
- (61) MacNalty, Sir Arthur S. Prevention of Smallpox: From Edward Jenner to Monckton Copeman. Med. Hist. XII, 1968, pages 1-19.
- (62) Razzell, P.E. Edward Jenner: The History of a Medical Myth.  
Med.Hist. IX, 1965, pages 216-223.

- (63) Stearns, R.P. & G. Pasti, see 42 above.
- (64) National Library of Scotland, Edinburgh. MS 3774.
- (65) Ditto
- (66) Scots Magazine, Vol XIV, February 1752, page 74.
- (67) Scots Magazine, Vol XVI, October 1754, page 628.
- (68) Buchan, William Domestic Medicine, see 54 above.
- (69) Scots Magazine, Vol LXI, January 1799, page 43.
- (70) Scots Magazine, Vol LXI, March 1799, page 175.
- (71) Scots Magazine, Vol LXI, May 1799.
- (72) Scots Magazine, Vol LXII, February 1800, page 198.
- (73) Scots Magazine, Vol LXI, July 1799.
- (74) Scots Magazine, Vol LXII, February 1800, and Appendix 1800 page 899.
- (75) Lawrence, C.J. William Buchan, Medicine Laid Open. Med. Hist. XIX, 1975, pages 20-35.
- (76) MacNalty, Sir Arthur, see 61 above.
- (77) Razzell, P.E., see 62 above.
- (78) Downie, Prof. A.W., in Med. Hist. IX, 1965, pages 223-229.
- (79) Schuster, N. Edward Jenner: a Medical Myth. Med. Hist. IX, 1965, pages 382-3.
- (80) Baxby, Derrick Inoculation and Vaccination; Smallpox, Cowpox and Vaccinia. Med. Hist. IX, 1965, pages 383-385.
- (81) Pankhurst, R. The History and Traditional Treatment of Smallpox in Ethiopia. Med.Hist. IX, 1965, pp 343-355.

TABLE I. HOME REMEDIES FOR SMALLPOX

	Type of Remedy	Ingredients	Ref. (See pp.91 ff)
I	DRINKS	Saffron and milk	(21)
		Barley	(21)
		Sorrel	(21)
		Hart-horn	(21)
		Barley and figs	(21)
		Marigold, Hartshorn, Figs, Cardus benedictus, Saffron	(21)
		Marigold, Saffron	(17)
		Syrup of lemons	(22)
II	FOR ANOINTING EYES	Plantain-water	(21) and (22)
		Rose-water	(21) and (22)
		Linseed	(21)
III	FOR ANOINTING NOSE	Vinegar	(21) and (22)
		Oil of Sweet Almonds	(21)
		Egg-yolk and plantain	(21)
		Rose-water, bettony, Vinegar, Citron-peel, Saffron	(22)
IV	FOR ANOINTING MOUTH	Barley, Plantane, Sorrel, Agrimony, Vervain, Pomegranate, Roses, Saffron	(22)
V	TO PRESERVE LUNGS	Syrup of Juniper, Violets and Water Lillies	(22)
VI	FOR ANOINTING SPOTS	Hogs-grease, or lard and water, or oil of sweet Almonds	(22)
VII	FOR HEALING POCKS	Egg-yolks; suet; fat of calves-feet; cream and saffron; beef-broth; wine and butter	(21)
		Chalk and cream	(22)
		Wade's Balsam	(23)
		Alum boiled in milk	(23)
VIII	DRINK FOR NURSE OF SMALLPOX PATIENT	Hen's broth with Succory, Borrage, Bugloss, Endive: or Lentils, Figs, Gum Lack, Gum Tragacanth, Fennel Seed, Maidenhair	(22)

TABLE II. INGREDIENTS OF SMALLPOX REMEDIES

Name in Remedy	Modern Botanical Name	Relevant Pharmacological Properties	Page of Ref.
Agrimony	<u>Agrimonia eupatoria</u> L.	Vulnerary, astringent	(1)
Assa foetida	<u>Ferula foetida</u> , Reg.	Stimulant, antispasmodic, expectorant	(5)
Balm	<u>Melissa officinalis</u> L.	Carminative, diaphoretic, febrifuge	(5)
Barley	<u>Hordeum distichon</u> L.	Nutritive, demulcent	(5)
Bezoar	Concretion from goat's stomach, see also Oriental Bezoar		
Bettyony	<u>Stachys officinalis</u> (L.) Trevisan	Heals infected wounds	(1)
Borrage	<u>Borage officinalis</u> L.	Flowers emollient: leaves and stem sudorific	(1)
Bugloss	<u>Lycopsis arvensis</u> L.		
Cardus benedictus	<u>Cnicus benedictus</u> L.	Bitter, aperitive, emetic, diaphoretic	(1)
Citrons	<u>Citrus medica</u> L.	Cooling, rich in Vitamin C	(7)
Cortex Peruvian	<u>Cinchona officinalis</u> L.	Febrifuge, contains quinine	(1)
Cynoglossum	<u>Cynoglossum officinale</u> L.	Antidiarrhoeic	(1)
Diascordium	Electuary of Scordium. Compound.		(3)
Endive	<u>Cichorium endivia</u> L.	Stimulates digestion	(1)
Fennel	<u>Foeniculum vulgare</u> Miller	Carminative, stimulates milk production	(1)
Figs	<u>Ficus carica</u> L.	Nutritive, emollient, demulcent, laxative	(5)
Gum Lack	Resin formed as excretion from skin of lac insect		(2)
Gum Tragacanth	Resin from <u>Astragalus</u> sp		(2)
Harthorn			
Hyssop	<u>Hyssopus officinalis</u> L.	Stimulant, carminative, pectoral	(5)
Jalapp	<u>Ipomaea purga</u> , Hayne	Purgative	(5)
Juniper	<u>Juniperus communis</u> L.	Tonic, disinfectant	(1)
Kermes	Derived from a coccus growing on the oak		(4)
Lemon	<u>Citrus limonia</u> , Osbeck	Cooling, tonic, rich in Vitamin C	(5)
Lentils	<u>Lens esculenta</u> Moench		
Linseed	<u>Linum usitatissimum</u> L.	Demulcent, emollient	(5)

TABLE II cont'd

Name in remedy	Modern Botanical Name	Relevant Pharmacological Properties	Ref.
Maidenhair	<u>Adiantum capillus-veneris</u> L.	Expectorant, diaphoretic	(1)
Marigold	<u>Calendula officinalis</u> L.	Stimulant, diaphoretic	(5)
Oriental Bezoar	Lewis distinguishes occidental and oriental bezoar, both animal-derived		(3)
Plantain water	<u>Plantago major</u> L.	Cooling, alterative, diuretic 'as an eye-wash, it is prescribed for conjunctivitis and inflammation of the eyelids'	(5) (6)
Pomegranate	<u>Punica granatum</u> L.		
Poppies, red	<u>Papaver rhoeas</u> L.	Sedative	(6)
Poppies, white	<u>Papaver somniferum</u> L.	Anodyne, contain opium	(1)
Rhubarb	<u>Rheum palmatum</u> L.	Laxative. Used in China since 3000 B.C.	(6)
Rose water	<u>Rosa</u> sp	Still used as a 'lotion in ophthalmia'	(5)
Rue	<u>Ruta graveolens</u> L.	Stomachic, carminative, antispasmodic and diaphoretic	(6)
Saffron	<u>Crocus sativus</u> L.	Carminative, diaphoretic Sedative and toxic: can cause violent haemorrhages	(5) (6)
Sorrel	<u>Rumex acetosa</u> L.	Refrigerant, diuretic	(5)
Succory	<u>Cichorium intybus</u> L.	Tonic, stomachic	(1)
Theriac	Various versions, all with very numerous ingredients including opium		(4)
Vervain	<u>Verbena officinalis</u> L.	Vulnerary, stimulates milk production	(1)
Violet	<u>Viola odorata</u>	Purgative	(1)
Wade's Balsam: Balsam Peru	<u>Hyroxylon pereirae</u> , klotsch.	Stimulating, expectorant	(5)
Storax Calamis	Liquidambar oricutalis, Mill.	Valuable in skin disorders	(5)
Benjamine	<u>Styrax tonkinensis</u> , Craib	Expectorant, vulnerary, antiseptic	(6)
Sweet Almonds	<u>Prunus amygdalus</u> , Batsch var. <u>dulcis</u>	Almond oil emollient	(5)
Frankincense	<u>Boswellia carteri</u> Birdw.	-	
Angelica roots	<u>Angelica archangelica</u> L.	Forms soothing ointment	(6)
St. John's Wort flowers	<u>Hypericum perforatum</u> L.	Oil used to treat wounds, burns, ulcers	(6)

TABLE II cont'd

Name in Remedy	Modern Botanical Name	Relevant Pharmacological Properties	Ref.
Water Lily	<u>Nymphaea alba</u> L.	Cardiac tonic	(1)
Zedoary root	<u>Curcuma zedoaria</u> , Rose	Stimulant, carminative. Like ginger only milder	(5)

References

- (1) Schanenberg, P. and F. Paris. Guide to Medicinal Plants. Lutterworth Press, London, 1977
- (2) Willis, J.C. A Dictionary of the Flowering Plants and Ferns. Sixth edition. Cambridge University Press, Cambridge, 1960
- (3) Lewis W. The Pharmacopoeia of the Royal College of Physicians at Edinburgh. Faithfully translated from the Fourth Edition, with useful Notes ... London, John Nourse, 1748
- (4) Wootton, A.C. Chronicles of Pharmacy. 2 vols. Macmillan, London, 1910
- (5) Potter's New Cyclopaedia of Botanical Drugs and Preparations by R.C. Wren, F.L.S. 8th edition. Health Science Press, Devon, 1975
- (6) Flück, Prof. Hans Medicinal Plants. Translated by Prof. J.M. Rowson. Fourth edition. Foulsham & Co., Slough, 1976
- (7) Nelson, Alexander Medical Botany. Livingstone, Edinburgh, 1951

CHAPTER V

Domestic Remedies for Gravel and Stone in Eighteenth Century Scotland

A modern medical dictionary defines gravel as "small, sandlike concretions in the urinary or biliary tract" and stone as "a calculus or concretion" (1). From the patient's viewpoint, the most significant feature of this disease is the pain that it causes. The pain of an attack of renal colic is described by Macleod (2) as intense and continuous, and sometimes excruciating. In extreme cases, a large stone can block the ureter, completely preventing the passage of urine.

The causes of gravel and stone are still far from being fully understood. At one time it was felt that the standard of nutrition affected its incidence:

"two or three centuries ago vesical calculus was so common in Britain that a respectable living could be made as a lithotomist, but the incidence is much lower: at the present time for reasons that are not known.....The remarkable fall in the incidence of vesical calculi in children and young adults, which occurred in Britain in the nineteenth century, coincided with a marked improvement in the nutrition of the nation. Today, however, in prosperous countries the great majority of renal calculi occur in well nourished, healthy young men in whom the most careful investigations reveal no cause for stone formation." (3)

Some degree of mystery still surrounds the causes of stone and gravel formation. It is hardly surprising then that during the eighteenth century in Scotland there were various conflicting views on the origin and cure of gravel and stone. However, the symptoms were as well known then as they are now, and gravel and stone (urinary rather than biliary) as described in the eighteenth century is probably one of the few disease types which we can fairly confidently identify with its modern counterpart.

The following light-hearted poem on the subject appeared in the

Scots Magazine for September 1741:

The Mistaken Physicians

Two able physicians as e'er prescrib'd physick,  
On B---n's illness were sent for the C-----ck;  
Each took my L--d's pulse, and most solemnly felt it  
Then call'd for his urine, view'd tasted and smelt it;  
On sight of his water M--- cry'd out, it was plain,  
That my L--d had a fever, and must breathe a vein;  
You are right, brother M---, and beside, added Sl----,  
Who voided this water, no doubt had a stone;  
You're out, quoth the nurse, and both of you mist it;  
For it was not my L--d but my L--y that p--s'd it.

(4)

Gravel and stone were common eighteenth century complaints.

Gravel is listed by Alexander Pennecuik, M.D., in 1715, as one of the common diseases in Tweeddale (5). Its prevalence is reflected in the abundance of home remedies to be found both in private collections, printed books of home medicine, newspapers and periodicals. Domestic remedies for gravel and stone in eighteenth century Scotland were numerous and varied but nearly all included drinking large volumes of fluid, a practice which would certainly do good rather than harm, and is still recommended by physicians today:

"The most important therapeutic and prophylactic measure for all forms of stones is the provision of adequate fluid intake which assists in preventing deposition of crystalloids in the renal tissue" (6)

The constituents of the home remedies were mostly commonplace herbs and vegetables, with the notable addition of lime water (derived either from mineral lime or from calcined shells) and soap.

One of the most famous individuals in the story of gravel and stone in the eighteenth century is Mrs Joanna Stephens. The story of her remedy for stone and its subsequent adoption by Parliament is clearly and fully told by Viseltar (7), in an article in which he points out the unjust accusations that have often been levelled at this lady. Loyal, for example, groups her with various notorious eighteenth century quacks such as Joshua Ward (who 'cured' headaches with antimony) and James Graham of Edinburgh who opened a 'Temple of Health' in London in 1780 (8).

Mrs Stephens' story belongs strictly in the realm of English domestic remedies, but since her influence spread through out Britain, and indeed Europe, it must be referred to here. Mrs Stephens' medicines were, in her own words,

"a Powder, a Decoction, and Pills. The Powder consists of Egg Shells and Snails, both calcined.

The Decoction is made by boiling some Herbs (together with a Ball which consists of Soap, Swines-Cresses burnt to a Blackness, and Honey) in Water. The Pills consist of Snails calcined, Wild Carrot Seeds, Burdock Seeds, Ashen Keys, Hips and Hawes, all burnt to a blackness, Soap, and Honey." (9)

One David Hartley, a sufferer from stone, was so impressed with her remedy, that he suggested that she should sell it to Parliament, and in 1739, after investigation by a medical committee, the remedy was accepted and Parliament awarded Joanna Stephens the sum of £5,000. The story does not end here, however, because the publication of her remedy caused an awakening of medical interest in cures for stone, and stimulated a great deal of research on the subject, both at home by people such as Stephen Hales, a research-minded doctor of divinity

(1677-1761) and abroad, for example by Morand and Geoffroy of the Académie Française (10).

However, it seems that Mrs Stephen's remedy was not strictly her own. Among the Clerk of Penicuik papers (11) is the following comment by Sir John Clerk, written some time between 1740 and 1751:

"For the Gravel

Mrs Stephen's Receipt for which parliament paid 5000 merk is best for this disease but after all that was paid I found the receipt in a little German doctor's book printed in England in the Reign of Henry the 8th"

A search of sixteenth century medical books, and of the Penicuik Library catalogues has so far failed to confirm this statement. It is unfortunate that Clerk did not name the author. If Sir John Clerk is correct, and I see no reason to doubt his statement, then Mrs Stephens may have been a charlatan after all!

Now let us look at a selection of the home remedies used against gravel and stone in eighteenth century Scotland.

In examining the Clerk of Penicuik Papers, a fascinating collection of remedies for gravel and stone has been found, dated from 1655 to 1745. No apology is needed for including these in full, since they form a hitherto unpublished collection. At least two generations of the Clerk family suffered from this complaint, which doubtless accounts for the number of remedies they collected.

On the outside of the envelope containing the seventeenth century recipes is the following poignant note in the handwriting of John Clerk.

The note is dated April 20th 1722 and reads:

"I am afraid this disease may be hereditary.....I now at the age of 46 begin to feel it.....and must prepare a stock of patience suitable to so tormenting a disease" (12)

However, it seems that his fears were unfounded, for in his Memoirs (13) we read that, in 1730,

"I am free of the Gout and Gravel, deseases which afflicted both my Grandfather and Father about my time of life"

Of his forbears, Sir John tells us

"My Grandfather lived till his age of 63.....He was a strong little man about 5 foot 5 inches, but in his elder years was vastly troubled with the Gravel, and died of a kind of Palsey"

while of his father he says

"He was one of the strongest men in his time, but not tall in stature, being scarce 5 foot 6 inches. He was at times much affflicted with the Gout and the Gravel, but after his age of 60 he got pretty free of both these distempers, by giving over the use of all other Liquids but milk and water."

He died aged 73.

Now let us look at some of the gravel and stone remedies collected by the Clerk family. Many of them are difficult to decipher, but here is a selection of those that have been possible to read:-

A Singular receipt for the gravel my Lord Lothian gave it me the 12th of February 1655

Tak the milk of A reid cow: distill the same in a stellator - it must be the spring or the month of May or June when the herbs are at the Best and haveing distilled the reid cows milk....put it up for your usse in clen..glasses..use it as follows as your necessitie requyre...

1. tak three spoonfulls thereof
2. tak three spoonfulls of good whyt wyne
3. tak as much brayed ginger as will cover a sixpence...mix these three all together and drink it in the morning for 3 days space and fast ane hour after it. Take for three days, desist for three days etc till you come to 30 days. (14)

A receipt for the gravel given me by (?) which he had off the Laird of Wachtou - To wit Sir Patrik herpburne off Wachtoun who dyed in Anno 1647

1. Oyle of ground almonds, mingled with drops of balsam orientalis taken fasting many mornings
2. 8 grains of Bezoar stone in broth of a foule
3. distillate from tobacco mingled with rhenish wine (or distilled matter of gren Nicotiana) with oil of almonds. (15)

A footnote to these recipes states

"orientall balsam is from Mount Gilead or from Arabie; or distilling from myrrhe can be used. The first remedie hath neither paine, danger, nor harm with it" and is "able to diffuse a stone in the kidneys"

Also included is a note on oil of amber:-

"mixed with parsley water or malmisey it is a singular remedy in discussing diseases of the Reines and bladder brynginge furth the stone and opening the passage of the urine"

"Advice to the Laird of Pennycook 1665"

This includes parcels of herbs, warmed and laid to the afflicted part.

Among the herbs listed are

"Pellitorie of the wall, hyssop, sage, chamomile, wormwood, cumin seeds, juniper berries, of each a handful" (16)

"24 May 1665 Advysse fra Alexander Pennycuik of Newhall Anent the Gravell"

This recipe consists basically of manna dissolved in whey with sal-prunella and cream of tartar. (17)

Alexander Pennecuik was a military surgeon, who in 1646 purchased the estate of Newhall, near Penicuik. His son, Alexander Pennecuik, was born in 1652, and was the author of "A Description of Tweeddale", a work which has already been referred to, for example on page 103. (18)

"1st June 1666 A receipt the Laird Of Innes gave me for the gravell"

Tak the Branch off Ane grown ash Tree- bigar than one Fingar - and scrape off the two First Barks; and take the third Bark nearest to the wood off. dry it and make it in powder - and take as much off the powder as will lie on a goat - mix it in half a mutchkin of rhennish or whyte wine - a little warm and drink it when a fit of the gravel come on you - and walk up and down - it hath great virtue to drive out small stones." (19)

"18 June 1669 a recipe received from David Livingstoun (wheelwright) Dalkeith"

This recipe consists of grated carrot in white wine.

"another from Mr William Casterwood minister at Dalkeith 1669"

This one recommends castel soap in white wine

"11 Nov 1671 From Lady Crimont"

Lady Crimont recommends Juniper berries and Garlick heads crushed in white wine.

"15th January 1672 Receipt from the Lady Roslin for the gravell"

This recipe includes the yolk of a new laid egg, half a spoonful of honey, half a mutchkin of white wine, to be taken fasting.

There is an undated comment "some say burdock is good for the gravel"

"Excellent Remedie agst ye gravell by Mr John Murray (Minister Strathmikle) to My Lord Colville 1693"

The advice given here is both religious and dietary. The minister advises "cooling" herbs, such as sorrell, burrage, buglose, succore, endive. Shun all hot spices, e.g. pepper, onions. Eat foule and veale. When pain occurs, take a gentle purge of rhubarb and manna, then oil of chamomile and dill to relieve the pain, followed by wine, oil of almonds, lemon syrup and candied sugar. Oil of scorpions rubbed in locally where the pain begins helps the passage of the stone.

If this treatment does not succeed, the sufferer is recommended to try a warm parcel of herbs including camomile, wormwode, grundivie, lint seed, mallows and althaea or water mallows. (20)

Also included in this collection of remedies is a newspaper page "printed by E.Owen, in Amen-Corner, 1745", and headed "Directions for Preparing....Mrs Stephen's medicine for the Stone, in a solid form"

In this later form of the recipe, the herbal ingredients are omitted, and the cure consists of swallowing pills made from Alicant or Castile soap, powdered quicklime and salt of tartar. During the treatment, lime water and milk are to be used as "common drink". This article

was communicated by Mrs Stephen's champion, David Hartley, to whom reference has already been made (See page 104).

On reviewing the Clerk of Penicuik collection of gravel remedies, several interesting points emerge. With the exception of Mrs Stephen's medicine, and that of Mr Casterwood, the components of the remedies are mostly commonplace herbs, most of them native to Scotland. Many of them are now known to have a definite diuretic action (see table on page 131 ). They are usually to be taken in a large volume of fluid, which itself will have helped bring about passage of the stones and gravel.

Ash, carrot, juniper, garlic, burdock, sorrel, bugloss, borage are all now known to have a diuretic action (21). Of the remaining herbs recommended for internal use, several have a real analgesic value, e.g. ash, almond, chamomile (22).

The external applications are more difficult to assess. It has recently been shown that various modern drugs are absorbed with surprising efficiency through the skin. One of the modern angina drugs, for example, is applied to the chest wall (23). It is therefore possible that some of the herbal constituents, even applied externally, would have some diuretic or analgesic effect. Certainly, when applied warm, the warmth itself would be soothing and relaxing.

Many of the herbs mentioned in the Clerk remedies are also to be found in the recipes for stone in children given by Thomas Raynald in 1626, in his book "The Birth of Mankinde". Raynalde's suggestions are to bathe in a decoction of Pelitorie of the Wall, Mallowes, Holyoke, Linseede, Lillie roots, Fenegreke, Sauery: to apply oyl of Scorpions

or Petrelum, and a plaster either of Parsley, Alexander, Pellitory, Mallows, Holioke, Fenegreke and five seeds, or of Cumin seed, oil of Scorpions and Petroleum (24).

The appearance in seventeenth and eighteenth century remedies of herbs used in the sixteenth and earlier centuries is interesting, but not surprising when one reflects that, until the late eighteenth century almost the entire Materia Medica was drawn from the mediaeval herbals, themselves based largely on much earlier works, such as that of Dioscorides.

An attempt has been made in Table I on page 131 to identify the various herbs mentioned in this chapter. Clearly, the older the remedy and the plant name, the more difficult it becomes to identify a species with certainty.

Now let us consider some of the other remedies for gravel and stone in eighteenth century Scotland.

The Scots Magazine for January 1747 published 'A receipt to cure the Gravel', which, judging by its simplicity, is probably a "folk" remedy, rather than an orthodox medical prescription:-

"Take a spoonful of honey, and a spoonful of oatmeal; put them into a quart mug; pour thereto boiling water; and stir them well together. Let it stand till it cools. Drink one half at night before going to bed, the remainder in the morning fasting, stirring it together before you drink it. Repeat this every day constantly."

( 25 )

The minister John Moncrief of Tippermalloch, from whom we have already quoted extensively in earlier chapters, offers a plethora of simple (and some disgusting) remedies for stone and gravel. Those

quoted here are taken from the third edition of his book 'The Poor Man's Physician' (1731) (26). Some of his remedies (such as water of Onions) are claimed to expel the stone, others (such as butter) "hinder the breeding of the stone": yet others, such as a vomitory of oil and vinegar, "asswageth pain". A fourth category of remedies are described by him as "Diuretics to break the Stone and expel the sand". The four categories of remedy are mixed somewhat randomly in the text, but are here presented tabulated according to their supposed action.

To assuage Pain from Stone in Kidneys and Bladder

1. Cataplasm (applied to ureters) of fried onions
2. Vomitory of warm water, salad oil, syrup of vinegar

To Expel Stone

1. Potion of equal parts of sweet and bitter almonds
2. Ashes of burnt egg-shells in white wine
3. Savine-water
4. Distilled water of Onions
5. Horse-radish scrapings infused in wine
6. Turpentine and sugar swallowed every morning
7. Berries of White-thorn in wine

To "hinder Breeding" of Stone

1. Fresh butter and sugar candy taken every morning fasting
2. Ten or twelve bitter Almonds in the morning
3. Filbert nuts taken before meat
4. Boiled water drunk warm before meat
5. Whey drunk in summer

"Diuretics to Break the Stone and Expel the Sand"

1. Decoction of anonis roots
2. " " Bramble roots
3. " " althaea
4. " " Valerian
5. " " Ground Moss
6. " " Ash-tree seed
7. " " filipendula roots
8. " " roots of Primrose
9. " " Broom-seed
10. " " heads of garlic
11. " " root of Elecampane
12. Cherry-gum drunk in wine
13. Wormwood-wine or "Hony and Wine, called melitites, continually drunk"
14. Water flowing out of a Birk-tree pierced, drunk
15. Distilled water of Oak-tree leaves
16. Broth of Coleworts
17. Distilled water of Broom flowers
18. Mugwort juice
19. Sliced radish roots in wine
20. Cockle-shells brayed, drunk
21. Ashes of a Hare wholly burnt, drunk or reins of hare, dried menstrual blood, a man's stone drunk fasting, foxes' blood, male goat intestines, goat and goose blood, snail stones, bruised flies inserted in the 'Privy Member', stones from fishheads.

Miscellaneous remedies for Stone from John Moncrief

1. Open the hemorrhoid Veins
2. Decoction of roots of Asses thistle and liquorice drunk for the space of twelve days

3. Beaten pellitory and butter applied to navel
4. Ashes of whole burnt Lapwing, drunk in wine

Disregarding for a moment the various animal-derived remedies, it can be seen from an examination of Table I (page 131), that many of the herbs recommended for stone and gravel by Moncrief do have diuretic properties, so that, particularly when drunk in a large volume of fluid, they would be of some service in helping the patient to pass the calculi.

When considering animal remedies used in the eighteenth century and earlier, it is very easy to dismiss them all as complete and disgusting nonsense. In some cases, however, this may prove too hasty a judgement. Nothing could seem more outrageous as a treatment for dropsy than to take a live toad and bake it in the oven, and eat the whole thing. Yet this eighteenth century practice has been partially vindicated. Toad skin has been found to contain certain glycosides with an action similar to digoxin, which could, through their effect on the heart, help to relieve the symptoms of dropsy (27).

Examining Moncrief's rather weird list of animal remedies for stone, it is evident that some are based on a 'like cures like' hypothesis: stones from a human, a fish-head, a snail are suggested. Others possibly have a little more scientific basis. The ashes of any burnt animal are high in phosphates, some of which (e.g. ammonium and potassium phosphates) are diuretics (28). It is difficult to see any relevance of dried blood, menstrual or otherwise!

It is interesting to find "brayed" (i.e. powdered) cockle shells among Moncrief's remedies, as well as ashes of egg-shells. Both these were constituents of Mrs Stephen's original recipe (see page 104).

As we shall see, calcined shells, as well as mineral lime, featured prominently in the orthodox medical treatment of gravel and stone during the later part of the eighteenth century.

Before leaving the subject of home remedies for gravel and stone in eighteenth century Scotland, it is interesting to read some of John Pechey's anecdotes on the subject. As we have seen in earlier chapters (see, for example, page 6 ), Pechey, though himself an M.D., wrote his 'Compleat Herbal' primarily for the use of laymen, and in his book he records a number of successful instances of home treatment for stone and gravel. Although this belongs strictly in the field of English home remedies, some will be mentioned here since there is an interesting overlap in the herbs used. Pechey's book was evidently consulted, at least to some extent, in Scotland (29).

Here are some of Pechey's recommendations:-

"The water of Arsmart is of great use in the stone of the kidnies or Bladder, a Draught of it being taken every Morning for two or three Months together. A Country-Gentleman us'd a Load of this Herb in a Year to make the Water, wherewith he cured many of the Stone" (30)

Of Fluellin, or Veronica Mas, Pechey tells us

"A large quantity of the Decoction of it, used for some Time, cured a Woman of the Stone in the Kidnies; which she had been troubled with Sixteen Years" (31)

A more complicated Decoction that Pechey recommends consists of liquorice root, marshmallow, grass, rest-harrow, winter-cherry berries, red chick-pease, currants, four greater Cold seeds, barley, strawberries, bean flowers:

"A Person that was grievously afflicted with the Stone in the Bladder,

was much reliev'd by taking of this Decoction daily, for the Space of seventeen Weeks" (32).

Other herbs recommended by Pechey include:

Birch-tree juice, brooklime, broom, burdock, camomile flowers, wild carrot, parsley seeds, tops of Pine tree, oil of wālnuts, oil of Almonds, syrup of juice of lemons, and

"A Bath made of Malt-flower, Hops and Oat-straw is much commended for those that are afflicted with the Stone; for it wonderfully mitigates the Pain, and forces away Urine, and many times the stone too" (33)

Again, consideration of Table I (page<sup>131</sup>) shows that many of the herbs recommended by Pechey for this disease have a diuretic action.

We have now looked at a selection of the home remedies for gravel and stone that were current in Scotland during the eighteenth century. Meanwhile, what orthodox treatment was available to those who could afford it?

Once again, we find considerable overlap between home remedies and orthodox ones. In particular, the use of lime-water was recommended by many physicians as well as laymen. The attempt to find a suitable dissolvent for the stone occupied considerable effort and caused much argument among educated classes. Stephen Hales, B.D., an English vicar, (1677-1761), devoted considerable time and effort to finding such a solvent, and published his findings in "An Account of Some Experiments on Stones in Kidnies and Bladder" (1733) (34).

Dr Robert Whytt, Professor of Institutes of Medicine and Practice of Medicine in Edinburgh until 1766, published in 'Medical Essays' (1752)

an "Essay towards the discovery of a safe medicine for dissolving the Stone". His treatment consisted of large draughts of lime water and shavings of Alicant soap:

"Where the stomach is very ticklish and delicate, so as not to be able to bear soap in any shape, the patient may safely trust to the shell lime-water alone.....In order to procure a quicker dissolution of the stone, it is proposed to inject some ounces of tepid lime-water twice a day into the bladder."

Whytt claimed that injection of limewater into the bladder would eventually render the operation of lithotomy unnecessary "except in very rare cases, where the stone is of such hardness as to resist the force of the oyster-shell lime-water" (35).

In his essay, Whytt provides dietary advice too for sufferers from stone:

"It will be proper to be sparing in the use of salt meats and honey, and to refrain from all fruits that have any acidity; while, on the other hand, milk and sugar, and animal food, may be safely used with the following vegetables. artichokes, asparagus, spinnach, lettuce, succory, parsley, purslane, onions, leeks, cellary, turnip, carrots, potatoes, radishes, green pease" (36).

Many of these vegetables have diuretic properties, as reference to Table I (page131 ) will show.

In March 1754, the Scots Magazine records an interesting case of a young man admitted to the Royal Infirmary of Edinburgh by Dr Rutherford. He had been suffering from stone for about eighteen months. Dr Rutherford decided to attempt to dissolve the stone, even though the patient was prepared for surgery. The patient was shown how to inject lime water into his bladder, using a bellows-like instrument invented by Mr Butler, clerk of the Royal Infirmary. The urine became full of sediment (which was taken to indicate dissolution of the stone), the patient's symptoms improved, and soon he was so much better that he

asked to be allowed home, where he was advised to continue the use of lime water (37). Mr Butler published an account of his invention in 1754 (38).

Richard Blackmore, in 1733, had been among the earliest to suggest injection directly into the bladder of so-called lithontriptics (39). Browne Langish, in 1746, had experimented with injections into dogs' bladders, and suggested that human experiments could be done (40).

Shelley (41) refers to a courageous British army officer in India, General Martin, who, in 1775, passed a steel watch spring into his own bladder via a canula and filed his stone, with some apparent relief. During the nineteenth century various instruments were devised for crushing, and/or removing bladder stones (42).

The use of lime-water as a dissolvent for the stone remained controversial among the medical profession. For example, a 'French Physician' objected to its use, and wrote to the Scots Magazine on the subject (43). He claimed it was ineffective. Certainly Sir Robert Walpole derived little if any benefit from its use. He died of urinary calculi despite (or because of?) administration of the Lixivium Lithontripticum recommended by James Jurin. The three main ingredients of this were quicklime, potash and water (44).

Lime water continued in use throughout the century, though experiments in vitro produced arguments as to its effectiveness. In 1770, for example, J. Hoffman wrote an account of his experiments with "Calculus humanus", which he found to be unaffected by a solution of "common fixt alcali", entirely dissolved by "fixt alcali deprived of its air.....but the lime water formed a crust round the stone, similar to what is seen round sticks, etc. which have lain in petrifying waters" (45).

His letter led to brisk arguments with a correspondent from Oxford named Elisha Adams. The argument ranged back and forth until the end of the year (46). A sample of the correspondence is included at the end of the chapter (page 132 ), together with Dr Whytt's 'Cure for Stone' and a so-called "New remedy for the Stone".( Pages 133, 134).

At this point let us consider the possible effect of lime water on calculi in the light of what is now known about their formation and chemical composition. A modern textbook of pathology tells us

"There are three main types of urinary calculus composed respectively of (a) a mixture of uric acid and urates - uric acid stones, (b) calcium oxalate; both (a) and (b) are laid down in acid urines and stones may contain a mixture of both substances; (c) calcium carbonate and phosphate combined in the complex forms of carbonate-apatite and hydroxyapatite; these are laid down in alkaline urines and often form an outer laminated deposit upon other stones.

The commonest pure type of stone consists of calcium oxalate whereas only 6% are of uric acid. Most stones consist principally of the apatites but contain also some oxalate and urate.....all the calcium-rich calculi except pure oxalate stones have a mucopolysaccharide binding agent. In the formation of calculi, excess of a particular substance is usually an important factor, as, for example, in hyperparathyroidism, where the increased excretion of calcium and phosphate in the urine very frequently leads to the formation of urinary calculi of the apatite variety" (47)

In view of this information it seems highly unlikely that lime water taken orally or injected into the bladder could be of any real clinical value in dissolving calculi. Indeed, it may have actively encouraged their enlargement! Another medical textbook tells us that

"Many experimental investigations in animals have shown that by increasing the calcium content of the diet and reducing the intake

of Vitamin A, renal and vesical calculi can be produced regularly" (48).

It seems likely that Hoffman's views were correct!

If the lime water which played such a prominent part in eighteenth-century treatments for gravel and stone was of little value, what of the various other recommended articles of the Materia Medica? The use of common salt was recommended by some physicians. In a note in his translation of the Fourth Edition of the Edinburgh Pharmacopoeia, Lewis states:

"Helmont commends the liberal use of it" (common salt) "as a preservative against the stone and gravel; but physicians are not at present agreed whether it really prevents or promotes the generation of the calculus" (49).

Soap was another item which appeared in many stone and gravel remedies, both domestic (see pages 104, 108) and official. A slightly new version of its use appears in the Scots Magazine for 1791:

"Receipt for the GRAVEL in all its stages

Take of Castile soap, according to the quantity of pills you mean to make, cut it thin into some syrup of marshmallows, then make it immediately into pills, almost double the size of a pea, and take two of these twice every day. Although it may seem very simple, relief may be found in the course of an hour or two, let the disorder be ever so bad." (50).

It is interesting to find that soap was still being used, as an ingredient of Holroyd's Gravel Pills, as recently as 1912 (51).

Neither the salt nor the soap were probably of any real value in the treatment of gravel and stone. By causing thirst and increased fluid intake, the salt may possibly have stimulated diuresis. Soap

has been used in modern times as an excipient for pills, and is known to be mildly laxative (52). Both these uses suggest that it passes relatively unchanged through the gastrointestinal tract, and would consequently have little if any effect on gravel and stone.

What other treatments were recommended by the eighteenth century physicians for gravel and stone? The fourth edition of the Edinburgh Pharmacopoeia, translated in 1748 by Lewis, (53), contains no specific preparations for the treatment of these diseases, but there are various compositions recommended for urinary ailments in general. Some examples are given below:

Decoctum ad nephriticos composed of marshmallow roots, roots of rest-harrow, linseed, seeds of wild carrot, pellitory of the wall, fat figs, stoned raisins of the sun.

It is noticeable that most of these herbs appear also in the domestic remedies for stone and gravel (see for example, page 110).

Pilulae Scilliticae These pills, Lewis tells us,

"are pretty much prescribed in Scotland for promoting urine and expectoration, and in general for attenuating the viscosity of the fluids. As their virtue is chiefly from the squills, the other ingredients are often varied in extemporaneous prescription".

The recipe Lewis gives is:

Spanish soap, one ounce; Gum Ammoniacum, prepared Millipede, fresh Squills, each half an ounce; Balsam of Copaiba, as much as is sufficient. Reduce them to a mass, according to art.

Elsewhere in his book, Lewis tells us that

" Scilla, the squill or sea onion.....almost always operates as a diuretic, and sometimes vomits or purges". (54)

Juniper oil is also recommended by Lewis for "difficulty with regard to urinary excretions". This is yet another diuretic herb (See Table I, page 131 ).

The views of William Buchan on gravel and stone are interesting, and occupy an intermediate position between the home and orthodox remedies, since they were written by an M.D. in a popular work intended for the general public. In his book 'Domestic Medicine', Buchan has some interesting comments on the aetiology of gravel and stone. Those quoted below are taken from the 1806 edition of his book (55):

"When the urine is too long retained, it is not only resorbed, or taken up again into the mass of fluids, but by stagnating in the bladder it becomes thicker, the more watery parts flying off first, and the more gross and earthy remaining behind. By the constant tendency which these have to concrete, the formation of stones and gravel in the bladder is promoted. Hence it comes to pass that indolent and sedentary people are much more liable to these diseases, than persons of a more active life."

In treatment of gravel and stone, Buchan emphasises the importance of diet and gentle exercise. The patient's diet

"ought chiefly to consist of such things as tend to promote the secretion of urine, and to keep the belly open. Artichokes, asparagus, spinnage, lettuce, parsley, succory, purslane, turnips, potatoes, carrots and radishes, may be safely eaten. Onions, leeks, and cellary are, in this case reckoned medicinal. The most proper drinks are whey, butter-milk, milk and water, barley-water, decoctions or infusions of the roots of marshmallows, parsley, liquorice, or of other mild mucilaginous vegetables, as linseed, lime-tree buds or leaves, etc. If the patient has been accustomed to generous liquors, he may drink small gin punch".

Buchan's dietary advice is strongly reminiscent of that given by Dr Whytt (see page 117). Incidentally, Buchan's dietary recommendations remain the same in his 1806 edition, as in the edition of 1774. The comments on the origin of the disease, are ~~however~~ a late eighteenth century addition, and do not appear in the 1774 edition. (56).

Buchan has some interesting comments to make on contemporary medicines for gravel and stone. The following quotations are taken from the 1774 edition of his book:

"The caustic alkali" (prepared by mixing quicklime and potash) "or soap lees, is the medicine chiefly in vogue at present for the stone. It is of a very acrid nature, and ought therefore to be given in some gelatinous or mucilaginous liquor; as veal broth, new milk, linseed-tea, a solution of gum-arabic, or a decoction of marshmallow roots.....

Though the soap-lees and lime-water are the most powerful medicines which have hitherto been discovered for the stone; yet there are some things of a more simple nature, which in certain cases are found to be beneficial, and therefore deserve a trial. An infusion of the seeds of *daucus sylvestris*, or wild carrot, sweetened with honey, has been found to give considerable ease in cases where the stomach could not bear anything of an acrid nature. A decoction of raw coffee berries taken morning and evening, to the quantity of eight or ten ounces, with ten drops of sweet spirit of nitre, has likewise been found very efficacious in bringing away large quantities of earthy matter in flakes. Honey is likewise found to be of considerable service, and may be taken in gruel, or in any other form that is more agreeable.

The only other medicine which we shall mention is the *uva ursi*. It has been greatly extolled of late both for the gravel and stone. It seems however to be in all respects inferior to the soap and lime-water; but it is less disagreeable, and has frequently, to my knowledge, relieved gravelly complaints." (57)

Writing of *Uva Ursi*, or Bear-berry, in 1819, the anonymous author of 'Medical Botany' (58) tells us that the leaves contain a gummy substance which, infused in water, is used for treating kidney stones and "affections of the urinary organs". The plant is astringent and mildly diuretic, but, the author suggests, it is "difficult to account

for its 'modus operandi'".

Be that as it may, bear-berry still appears as a constituent of a modern tisane recommended for diseases of the kidneys and bladder (59). Other herbs still in use for treatment of kidney pains, kidney stones and gravel include: mallow, parsley, meadow sweet, elder, birch, maize, celery, juniper, rest harrow. Many of these will by now be familiar as eighteenth century ingredients of home and/or orthodox remedies for stone and gravel (60).

To conclude this survey of home and orthodox remedies used in Scotland against stone and gravel, the various constituents of the remedies quoted are listed in Table I, page 131, and where possible identified botanically. A preliminary survey of the literature indicates that a very high proportion of the plants mentioned have diuretic properties and would therefore be of some service in treatment of gravel and stone. It is hoped to pursue this aspect of the study in more depth in the future.

No consideration of gravel and stone in the eighteenth century would be complete without a reference to lithotomy, an operation at least as old as the Hippocratic Oath, which in one translation reads:

"I will not use the knife, not even, verily, on sufferers for stone, but I will give place to such as are craftsmen therein" (61)

This interpretation of the Hippocratic oath has been challenged, for example by Nittis (62), who argues on etymological and grammatical grounds that the Hippocratic Oath was forbidding not lithotomy as such, but castration. Be that as it may, the operation of lithotomy is an ancient one, and was widely practised in the eighteenth century. There is a

fascinating account of its practice in England in an article by Batty Shaw (63), entitled "The Norwich School of Lithotomy". However, this belongs strictly in the field of English orthodox medicine.

Not all those who practised lithotomy were medically qualified. Whether or not they had passed the necessary examinations, some of the lithotomists had a surprisingly high success rate. William Cheselden (1688-1752), surgeon to St Thomas' Hospital, London, was famous as a lithotomist. The mortality among his patients was 17% (64). The nineteenth century Franciscan monk Frère Jean de Saint Come (1803-1881), practising in France as a lithotomist, had an even higher success rate, claiming 90% cures in over a thousand cases (65).

In John Pechey's time, lithotomy was evidently accepted, and in his 'Compleat Herbal' (1694), Pechey tells us that

"Those that cut for the Stone use a Bath made of the Bark" (of the oak tree) "to heal the Wound." (66)

Among other medicinal properties, oak is now known to contain a coagulant (67).

During the eighteenth century there were itinerant surgeons, and some of these practised lithotomy. A modern textbook of medicine (68) tells us that, during the eighteenth century, it was possible to make a respectable living as a lithotomist. It is difficult to find out much about the itinerant lithotomists, but sometimes they advertised their arrival in a new city, as did Dr Abraham of Groningen when he landed in London:

"Be it known unto all men that to this famous city of London the Renowned and Well-experienced Physician, Cutter of Stone and Oculist has arrived." (69).

The Edinburgh Gazette for July 1702 gave notification of the presence, at the foot of the West Bow, Edinburgh, of Duncan Campbell of Ashfield, chirurgeon to the city of Glasgow, who had "cutted nine score persons" (for stone) "without the death of any except five" (70). Duncan Campbell was employed by Glasgow Town Council for cutting for the Stone. He replaced, in 1688, the highlander Evir McNeill who had been employed for the same purpose. Both men, it seems, were relatively uneducated highlanders (71).

Apart from private operations for lithotomy, the procedure was also regularly carried out in eighteenth century hospitals. Figures for the Edinburgh Royal Infirmary show two or three cases admitted annually (out of a total of some four hundred admissions) for lithotomy. In general, the patients survived. For example, during the years 1749 to 1754 inclusive, twenty-nine patients underwent lithotomy in this hospital. Of these, four died, nineteen were described as cured and the other six survived (72).

In conclusion, gravel and stone were common afflictions in eighteenth century Scotland. As regards medical treatment, there was a great deal of overlap between home and orthodox remedies, and probably little to choose between them. Many of the herbs used had a diuretic action, and taken in large volumes of fluid would have helped in passage of the calculi. One of the most famous inorganic remedies of the century, namely lime water, was probably of little or no value. Lithotomy was practised by both lay and medical men, with a surprising degree of success.

REFERENCES

- (1) Thomson, W.A.R., M.D. Thomson's Concise Medical Dictionary. Churchill Livingstone, Edinburgh, 1973. Page 128.
- (2) Clinical Examination, Ed. J. Macleod. Fourth Edition. Churchill Livingstone, Edinburgh, 1976. Page 206.
- (3) Davidson's Principles and Practice of Medicine. Ed. J. Macleod Twelfth Edition, Churchill Livingstone, Edinburgh, 1977.
- (4) Scots Magazine, Vol III, September 1741, page 406.
- (5) Alexander Pennecuik, M.D. Description of Tweeddale, 1715. Reprinted Leith, 1815. Page 81.
- (6) Davidson's Principles, see (3) above.
- (7) Viseltear, Arthur J. Joanna Stephens and the Eighteenth Century Lithontriptics; A Misplaced Chapter in the History of Therapeutics. Bull.Hist.Med. 42, 1968, pages 199-220.
- (8) Leyer, Mrs C.F. The Magic of Herbs. Johnathan Cape, London, 1926.
- (9) Viseltear, A.J., see (7) above.
- (10) Ibid.
- (11) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh SRO GD 18/2125.
- (12) Ibid.
- (13) Memoirs of the Life of Sir John Clerk of Penicuik, Baronet. Extracted by Himself from his own Journals. Ed. John M. Gray. Constable, Edinburgh. Scottish History Society Vol XIII, 1892, pp7-8.
- (14) Clerk of Penicuik Papers, see (11) SRO GD 18/2125
- (15) Ibid.
- (16) Ibid.
- (17) Ibid.

- (18) Brown, William. Writings of Alexander Pennecuik, M.D., and Alexander Pennecuik, Merchant. Edinburgh Bibliographical Society Vol VI, 1906.
- (19) Clerk of Penicuik Papers, see (11) above.
- (20) Ibid.
- (21) Schauenberg, P. & F. Paris. Guide to Medicinal Plants. Translated by M. Pugh-Jones. Lutterworth Press, Guildford, 1977.
- (22) Ibid.
- (23) Hardarson, T., Henning, H. & R.A. O'Rourke. Prolonged salutary effect of isosorbide dinitrate and nitroglycerin ointment on regional left ventricular function. *Am.J.Card.* 40, pages 90-98.
- (24) Raynald, Thomas The Birth of Man-kinde. London, 1626.
- (25) Scots Magazine, Vol IX, January 1747, page 15.
- (26) The Poor Man's Physician or the Receipts of the Famous John Moncrief of Tippermalloch. 3rd edition, Edinburgh, 1731.
- (27) Comrie, J.D. History of Scottish Medicine. 2 vols. Wellcome Historical Museum, London, 1932.
- (28) Martindale The Extra Pharmacopoeia. London, Pharmaceutical Press. 23rd edition, Vol I, 1952, page 78.
- (29) My own copy of John Pechey's book was owned by a Joseph Hutton of Dumfries early in the eighteenth century, and by James Hutcheson of Traquair in 1770.
- (30) Pechey, John The Compleat Herbal of Physical Plants. London, 1694. Page 10.
- (31) Ibid., page 88.
- (32) Ibid., page 234
- (33) Ibid., page 141
- (34) Clark-Kennedy, A.E. Stephen Hales, D.D., F.R.S. An Eighteenth Century Biography. Cambridge, 1929.

- (35) Scots Magazine, Vol XIV, October 1752, page 588.
- (36) Scots Magazine, Vol VI, March 1744, page 140-1.
- (37) Scots Magazine, Vol XVI, March 1754, page 128.
- (38) Butler, William A Method of Cure for the Stone Chiefly by Injections. Edinburgh. Hamilton, Balfour & Neill, 1754. Quoted by Viseltear in Bull.Hist.Med. 43, see (7) above.
- (39) Viseltear, A.J., see (7) above.
- (40) Ibid.
- (41) Shelley, H.S. Intravesical Destruction of Bladder Stones. J. Hist. Med. 19, 1964, pages 46-60.
- (42) Guthrie, D. A History of Medicine. London, Nelson, 1945 Pages 311, 334.
- (43) Scots Magazine, Vol XVII, April 1755, page 175.
- (44) Viseltear, A.J. The Last Illness of Sir Robert Walpole, First Earl of Orford. Bull.Hist.Med. XLI, 1967, pages 195-207.
- (45) Hoffman, J. in Scots Magazine, Vol XXXII, September 1770, page 469.
- (46) Scots Magazine, Vol XXXII, pages 56, 691, 728.
- (47) Muir's Textbook of Pathology, Ed. J.R. Anderson. Tenth edition. Edward Arnold, London, 1976. Page 805.
- (48) Davidson's Principles, see (3) above.
- (49) Lewis, William, M.B., F.R.S. The Pharmacopoeia of the Royal College of Physicians at Edinburgh. Faithfully translated from the Fourth Edition with useful notes.....London, John Nourse, 1748. Page 93.
- (50) Scots Magazine, Vol LIII, February 1791, page 60.
- (51) Secret Remedies. What they Cost and what they Contain. Based on Analyses made for the British Medical Association. 1st Series. London, BMA, 1909, page 104.

- (52) Martindale, see (28) above, Vol I, page 902.
- (53) Lewis, see (49) above, page 106.
- (54) Ibid., page 62.
- (55) Buchan, William Domestic Medicine. Glasgow, 1806.
- (56) Buchan, William Domestic Medicine, London 1774.
- (57) Ibid., pages 356-7.
- (58) Medical Botany or History of Plants in the Materia Medica of the London, Edinburgh and Dublin Pharmacopoeias. 2 vols. London, 1819. Entry no. 74.
- (59) Schauenberg & Paris, see (21) above. Page 313.
- (60) Ibid., page 334.
- (61) Guthrie, Douglas, see (42) above, page 54.
- (62) Nittis, Savas. The Hippocratic Oath in Reference to Lithotomy. Bull. Inst. Hist. Med. 7, 1939, pages 719-728.
- (63) Shaw, A. Batty The Norwich School of Lithotomy. Med. Hist. 14, 1970, pages 221-259.
- (64) Guthrie, D., see (42) above. Page 239.
- (65) Ibid., page 149.
- (66) Pechey, J. , see (30) above. Page 140.
- (67) Schauenberg & Paris, see (21) above. Page 159.
- (68) Davidson's Principles, see (3) above.
- (69) Walker, Kenneth The Story of Medicine. Hutchinson, 1954, page 333.
- (70) Chambers, R. Domestic Annals of Scotland. Edinburgh, Chambers. 3rd edition, 1874, Vol III, page 260.
- (71) Ferguson, T. The Dawn of Scottish Social Welfare. Nelson, 1948, page 234.
- (72) Scots Magazine, 1749 to 1754.

Ingredients of gravel and stone remedies

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Name in Remedy Modern botanical name	Diuretic action	Other relevant pharmacological data	Ref.
Almonds <u>Prunus amygdalus</u> , Batsch.		Anaesthetic, anti-spasmodic	(1)
Althaea, see Marshmallow			
Amber resin from <u>Pinus palustris</u> , Mill. and other spp.			
Anonis, see Restharrow			
Arsmart <u>Polygonum hydropiper</u> L.			
Artichoke <u>Cynara scolymus</u> L.	++	Choleretic	(1)
Asparagus <u>Asparagus officinalis</u> L.	+++	Contains saponin	(1)
Asses Thistle ? <u>Sonchus oleraceus</u> L.			
Balsam of Copaiba <u>Copaifera</u> spp		A urinary antiseptic	(3)
Barley <u>Hordeum vulgare</u> L.		Sympathomimetic	(1)
Bean <u>Phaseolus</u> sp or <u>Vicia</u> sp	+	<u>Phaseolus</u> pods or seeds diuretic	(1)
Bezoar concretion from goat's stomach			
Birch <u>Betula</u> sp	+	Buds choleretic	(1)
Bramble <u>Rubus fruticosus</u> L.			
Brooklime <u>Veronica beccabunga</u> L.	+		(1)
Broom <u>Cytisus scoparius</u> (L.) Link	+	Cardiotonic, hypertensive, vasoconstrictor	(1)
Buglose <u>Echium vulgare</u> L.	+		(1)
Burdock <u>Arctium lappa</u> L.	+	Choleretic, diaphoretic	(1)
Burrage <u>Borago officinalis</u> L.	+		(1)
Carline thistle <u>Carlina acaulis</u> L.	+	Antibiotic	(1)

Name in Remedy Modern botanical name	Diuretic action	Other relevant pharmacological data	Ref.
Carrot <u>Daucus carota</u> L.	+		(1)
Cellary <u>Apium graveolens</u> L.	+		(1)
Chamomile <u>Matricaria chamomilla</u> L.		Spasmolytic	(1)
Chick pease <u>Cicer arietinum</u> L.			
Coffee <u>Coffea arabica</u> L.	+		(1)
Coleworts ? <u>Geum urbanum</u> L.			
Couch Grass <u>Agropyron repens</u> (L.) Pal. Beauv.	+	Mucilaginous, antibiotic	(1)
Cream of Tartar Potassium tartrate	+		(3)
Cumin <u>Cuminum cyminum</u> L.			
Currants <u>Ribes</u> sp			
Dill <u>Anethum graveolens</u> L.			
Dock <u>Rumex</u> sp			
Elder <u>Sambucus nigra</u> L.		Flowers mucilaginous	(1)
Elecampane <u>Inula helenium</u> L.	+		(1)
Endive <u>Cichorium endivia</u> L.			
Erica <u>Erica</u> sp			
Fenegreke <u>Trigonella foenum-graecum</u> L.		Mucilaginous	(1)
Fennel <u>Foeniculum vulgare</u> , Miller	+	Antispasmodic	(1)
Filbert <u>Corylus avellana</u> L.			
Filipendula <u>Filipendula ulmaria</u> (L) Max	+++	Mildly spasmolytic	(1)
Five seeds ?			

Name in Remedy Modern botanical name	Diuretic action	Other relevant pharmacological data	Ref.
Fluellin <u>Linaria elatine</u> , Mill.		Astringent, vulnerary	(2)
Four greater cold seeds <u>Citrullus vulgaris</u> , Schrad. <u>Cucurbita</u> sp <u>Cucumis melo</u> L. <u>Cucumis sativus</u> L.			
Garlic <u>Allium sativa</u> L.	+	Antispasmodic	(1)
Gin, see Juniper Gin is flavoured with juniper berries			
Ginger <u>Zingiber officinale</u> , Roscoe		Stomachic	(2)
Gromil <u>Lithospermum officinale</u> L.	+		(1)
Ground Moss <u>Polytrichum juniperum</u> , Willd	+		(2)
Grundivie <u>Glechoma hederaceum</u> L.		Tonic	(1)
Gum Ammoniacum from <u>Dorema</u> sp			(2)
Gum Arabic from <u>Acacia senegal</u> , Willd			(2)
Hawes fruit of <u>Crataegus</u> sp		Sedative	(1)
Hawkweed <u>Hieracium pilosella</u> L.		Antibiotic	(1)
Hips fruit of <u>Rosa canina</u> L.	+	Seeds diuretic, fruits rich in Vitamin C	(1)
Holyoke <u>Althaea rosea</u> L.	+	Emollient, demulcent	(2)
Hops <u>Humulus lupulus</u> L.		Antibiotic, sedative	(1)
Horse-radish <u>Cochlearia armoracia</u> L.	+		(1)
Horsetail <u>Equisetum arvense</u> L.	+		(1)
Hyssop <u>Hyssopus officinalis</u> L.		Tonic, astringent	(1)
Juniper berries <u>Juniperus</u> sp	+		(1)

(1v)

Name in Remedy Modern botanical name	Diuretic action	Other relevant pharmacological data	Ref.
Leek <u>Allium porrum</u> L.	+		(1)
Lemon <u>Citrus limonia</u> , Osbeck			
Lettuce <u>Lactuca sativa</u> L.			
Lillie <u>Lilium</u> sp			
Lime Tree <u>Tilia</u> sp		Antispasmodic	(2)
Limon, see Lemon			
Ling <u>Calluna vulgaris</u> (L.) Hull	+	Disinfects urinary tract	(1)
Linseed, Lintseed <u>Linum usitatissimum</u> L.		Mucilaginous	(2)
Liquorice <u>Glycyrrhiza glabra</u> L.	+	Antispasmodic	(1)
Maize <u>Zea mays</u> L.	+	Styles of flowers diuretic	(1)
Mallowes <u>Malva sylvestris</u> L.		Mucilaginous, soothing	(1)
Malt flower, see barley presumably flour from germinated barley			
Mauna <u>Fraxinus ornus</u> L.			
Marshmallow <u>Althaea officinalis</u> L.		Emollient, soothing	(2)
Meadow Sweet, see Filipendula			
Mugwort <u>Artemisia vulgaris</u> L.			
Nettle <u>Urtica dioica</u> L.	+	Contains Vitamin A	(1)
Nutmeg <u>Myristica fragrans</u> , Hoult.		Toxic, can ease kidney pains	(1)
Oak <u>Quercus</u> sp		Coagulant	(1)
Oatmeal, Oat Straw <u>Avena sativa</u> L.		Nourishing	
Onion <u>Allium cepa</u> L.	+		(1)
Parsley <u>Petroselinum crispum</u> (Miller) Turrill	+		(1)

Name in Remedy Modern botanical name	Diuretic action	Other relevant pharmacological data	Ref.
Pease, green <u>Pisum sativum</u> L.		contains choline	(1)
Pellitory <u>Parietaria officinalis</u> L.	+		(1)
Potato <u>Solanum tuberosum</u> L.		spasmolytic	
Primrose <u>Primula vulgaris</u> , Huds			
Purslane <u>Halimione portulacoides</u> (L.) Dum			
Radish <u>Raphanus sativus</u> L.			
Raisins <u>Vitis vinifera</u> L.			
Restharrow <u>Ononis spinosa</u> L.	+	used in cases of kidney stones	(1)
Rubarb <u>Rheum rhabarbarum</u> L.		Tonic, purgative, <u>BUT</u> oxalate-rich	(1)
Ruscus <u>Ruscus aculeatus</u> L.	+		(1)
Rust back fern <u>Ceterach officinarum</u> , De Candolle		Sedative	(1)
Sage <u>Salvia officinalis</u> L.		Spasmolytic	(1)
Salprunella Nitre and flowers of sulphur			
Sauery <u>Satureia hortensis</u> L.		Stomachic	(1)
Savine water, see Juniper made from Juniper			
Saxifrage <u>Pimpinella saxifraga</u> L.			
Sorrell <u>Rumex acetosa</u> L.	+		(1)
Spinach <u>Spinacia oleracea</u> L.		High nutritive value	(1)
Spirit of nitre*			
Squills <u>Urginea maritima</u> , Baker	+	Relieves irritation of mucous surfaces	(2)

(vi)

Name in Remedy Modern botanical name	Diuretic action	Other relevant pharmacological data	Ref.
Strawberries <u>Fragaria vesca</u> L.	+	Astringent, used in haematuria	(1)
Succory <u>Cichorium intybus</u> L.		Contains saponin	(1)
Tobacco <u>Nicotiana tabacum</u> L.			
Turpentine from <u>Pinus</u> sp			
Uva ursi <u>Arctostaphylos uva-ursi</u> (L.) Sprengel	+	Disinfects urinary tracts	(2)
Valerian <u>Valeriana officinalis</u> L.		Tranquilliser	(1)
Vinegar from <u>Vitis vinifera</u> L.			
Walnuts <u>Juglans regia</u> L.		Astringent	(2)
Water mallows see marshmallow			
Whitethorn, see Hawes			
Willow <u>Salix</u> sp		Analgesic	(1)
Winter Cherry <u>Physalis alkekengi</u> L.	+	Vitamin-rich	(1)
Wormwood <u>Artemisia absinthium</u> L.	+		(1)

### References

- (1) Schanenbergh, P. and F. Paris. Guide to Medicinal Plants. Lutterworth Press, London, 1977
- (2) Potter's New Cyclopoedia of Botanical Drugs and Preparations. R.C. Wren. Health Science Press, Devon, 1975
- (3) The Extra Pharmacopoeia (Martindale) 23rd Edition. Pharmaceutical Press, London, 1952

Scots Magazine. Vol. xxxii, Sept. 1770, page 469

SIR,

Cambridge, July 10, 1770

It is an opinion commonly received, that lime water is a dissolvent for the stone: with a view to be fully satisfied of the truth of this doctrine, I made the following experiments.

I put several small pieces of calculus humanus in different glasses, and severally poured on them lime-water, a solution of fixt alcali deprived of its air, and of common fixt alcali; the consequence was, that the solution of common fixt alcali had no effect on the stone; that of fixt alcali deprived of its air, entirely dissolved it; but the lime-water formed a crust round the stone, similar to what is seen round sticks, &c. which have lain in petrifying waters.

The reason of this phaenomenon is clearly this: The calculus restoring the fixt air (of which it contains a very large proportion) to the earth contained in the lime-water, forms a new compound, which is not dissoluble in water; but the fixt alcali deprived of its air, not containing any of this earth, can only form an union of the fixt air with the fixt alcali, which is still dissoluble in water: in both cases the solution acts by depriving the stone of its fixt air, which cements it together; but the crust formed at first round the stone by the lime-water, effectually defends it from any further action of the menstruum. The solution of fixt alcali containing a quantity of fixt air, is not in a condition to absorb that of the stone, and for that reason leaves it untouched. It appears therefore that fixt alcali deprived of its air, and not lime-water, is the true dissolvent for the stone; and some trials I have made, give me reason to hope I shall be able to find a proper method of giving it so that it shall not lose its efficacy in passing through the different canals of the body.

I am, &c.

J. HOFFMAN

## Cure for the Stone in the Bladder

As books of medicine are seldom read by any but those of the profession, it may not perhaps be altogether useless to the publick, or unacceptable to our readers, to be informed of a method for dissolving the stone in the bladder, which has been successfully tried by Dr Robert Whytt Physician in Edinburgh, and of which he has given a full account in an Essay towards the discovery of a safe medicine for dissolving the stone, just now published in the 2d part of the 5th volume of Medical Essays.

The patient is advised to drink, every day, from a chopin to three mutchkins of lime-water, made with calcined oister or cockle shells, and at the same time to swallow, in any form that may be least disagreeable, from half an ounce to an ounce of the best Alicant soap. If he takes the soap in pills, or shaved down, he may divide it into three doses; the largest to be taken in the morning, fasting; the second, at eleven before noon; and the third, at five after noon; drinking above each dose a large draught of the lime-water; the remainder of which he may take at any other time of the day. The disagreeable taste of the lime-water may be blunted by adding a little sweet milk to it, or infusing in every chopin bottle of it a few juniper berries. If the patient finds difficulty in taking soap in a solid form, he may dissolve it in some of the lime-water made pretty warm; only it is to be observed, that unless the shells have been freed of their salt, by being long exposed to the weather, the water got off them will not dissolve soap.

Where the stomach is very ticklish and delicate, so as not to be able to bear soap in any shape, the patient may safely trust to the shell lime-water alone: only, as this, when taken without soap, will

be sometimes apt to occasion costiveness, it may be proper, now and then, to use a little rhubarb, an infusion of senna, or an alvetick pill.

If the shell lime-water cannot be had, the patient may use the same quantity of stone lime-water: but as this has not by half so much virtue as the other, he must take a greater quantity of soap along with it.

At first, the patient should begin with a smaller quantity of the lime-water than what is mentioned above, which he may increase by degrees, and ought to persevere in the use of, especially if he finds any abatement of his complaints, or symptoms of the stone dissolving, for several months, nay if the stone be very large, years: during which time he should abstain from all acid and fermented liquors, as vinegar, wine, ale, beer, cyder, &c. For his drink he may have water and milk, or a ptisan made with roots of marshmallows, parsley and liquorice. A little weak punch made without souring may sometimes be allowed.

It will be proper to be sparing in the use of salt meats and honey, and to refrain from all fruits that have any acidity; while, on the other hand, milk and sugar, and animal food, may be safely used with the following vegetables, artichokes, asparagus, spinnach, lettuse, succory, parsley, purslane, onions, leeks, cellary, turnip, carrot, potatoes, radishes, green pease.

As the cure depends upon the urine being strongly impregnated with the vitues of the lime-water, the patient ought to drink no more of any other liquors than is necessary to quench his thirst, and should retain his urine as long as he can without uneasiness, that it may have the more time to act upon the surface of the stone.

In order to procure a quicker dissolution of the stone, it is

proposed to inject some ounces of tepid lime-water twice a day into the bladder.

This method of cure appears preferable to that published some years ago by Mrs Stephens, as the lime-water seems plainly from experiments to have a greater power of dissolving the stone, as it is less nauseous and burdensome to the stomach, and as it never increases the patient's pains, which Mrs Stephens's medicines scarce ever fail to do, at first for some weeks, or even months.

The lime-water is made thus.

Take oister or cockle shells, and put them into the middle of a brisk fire, where they are to continue for several hours, till they are thoroughly calcined; which is known by their being friable, and quite white.

Upon a pound of these shells, as soon as they are taken from the fire, pour eight mutchkins of boiling water; after they have stood together for four hours, decant off the clear liquor, and filtrate it thro' brown paper, or a piece of thick linen; and put it up in well-corked bottles, otherwise it will soon lose its virtues.

Scots Magazine, Vol. xxxii, August 1770, page 412

A new remedy for the STONE

THE Drops. Take of fixt vegetable alkali, and pur clean quick lime, of each a pound; mix, and put them into a glazed vessel; pour on them a pint and a half of water; let them stand seven or eight days, stirring them daily with an iron or glass rod; then add a pint more of water; and, when continued a day or two longer, pour off the clear liquor into a bottle for use.

Take a well-fed pullet, of eight or ten months old, boil it in three pints of water, to three half-pints, with a few common pot-herbs, but no salt; when cool, skim off the fat. To half a pint of this decoction, add twelve of the above drops; divide it into two equal portions; take one at ten in the morning, the other at eight in the evening, increasing two drops to each dose daily, till the number amounts to fifty or sixty; some can bear sixty or seventy, or more; others not forty. Hence the best rule is, to be guided by the sickness and loathing produced, which, if in any way considerable, the dose must be diminished to what the patient can bear with ease and safety.

As this medicine acts very slowly and gradually, the long use of it is apt to produce weakness in the stomach and intestines, and, sometimes of the whole system, by which means the medicine will lose its effect; to prevent this, it will be necessary, an hour before each dose, to take one dram of simarouba-root, in fine powder.

In this manner the patient must go on for six or seven weeks, at which time he must leave off the medicine for eight or ten days; and, during this recess, let him take a wine-glass of the following tincture. - On two ounces of Peruvian bark, in powder, pour a quart of red port; let them stand forty-eight hours in a warm place, and often shook; decant the wine, and pour on the residuum a pint of water, which, after standing twenty-four hours, filtre, and add to the wine.

A strict observancy of this regimen, I have known perfectly to cure some, and greatly relieve others, when a long continuance of the alkali alone, has weakened the stomach so much, that it has been obliged

to be left off, even when it promised to be of service; but by this method every evil is endeavoured to be guarded against; here, particular attention is paid to the impending weakness, as well as to the effects of the medicine, which, like most others, in long application, will destroy their own action on the body, the system being as it were habituated to them.

CHAPTER VI

Domestic Remedies for Hydrophobia in Eighteenth-Century Scotland

Hydrophobia or rabies is defined in modern terms as

"A viral infection of certain animals, particularly dogs and wolves, which is transmitted to man by the bite of an infected animal, and causes an illness characterised by mental changes and spasm of the muscles of swallowing and respiration." (1)

This muscle spasm is the cause of the dread of drinking which gives rise to the name hydrophobia.

All mammals are susceptible to the disease (2). Although normally passed through a bite, even a lick from an infected animal can be sufficient to pass on the virus. The virus travels from the point of entry via nerves or peripheral lymphatics to the brain, where it multiplies, and spreads thence to other parts of the body (also along nerves).

The incubation period of the disease varies from under two weeks to several months ( a fact which makes immunisation possible). It is usually between one and two months (3).

The disease is not present in any native wild animals in Britain at the present time, but its incidence in western Europe is increasing. The main reservoirs for the disease are fox, skunk, jackal, and in some areas vampire bats, though it is usually transmitted by a dog bite.(3).

Little of this knowledge concerning hydrophobia was available in the eighteenth century, a time when the disease was still endemic in Britain. The long incubation period of the disease had been known for many centuries; it was noticed, for example, by Averroes (1126-1198) in the twelfth century (4). Methods of treatment for the disease have been remarkably static since the first century AD, when Celsus prescribed suction of the wound and cauterisation (5), a method of local treatment

which still cannot be improved upon.

Even though the causes were not well understood during the eighteenth century, the symptoms of hydrophobia were all too familiar. The dread with which this disease was viewed is readily understandable when one considers the virulence and unpleasantness of the symptoms, including apparent madness. Presumably then, as now, the disease was generally fatal. Apparently many of those who did survive the experience, later committed suicide (6).

The practice of smothering victims of acute hydrophobia also becomes intelligible when one appreciates the horror of the disease and its generally fatal outcome. Evidently such 'mercy-killings' were leniently regarded by the law. In 1772, for example, a boy with hydrophobia was smothered between pillows.

"For this, four persons were indicted for murder at last York assizes; but the fact of destroying the unhappy creature not being proved, they were acquitted." (7)

Various eighteenth-century remedies for hydrophobia likewise refer to the practice of smothering victims of hydrophobia. For instance, a certain French remedy, we are told, was

"often tried in France, even on Persons condemn'd to be smother'd between Feather Beds, and never known to fail of success" (8).

It is difficult to assess the commonness of hydrophobia in eighteenth-century Scotland. There is an occasional entry in the Edinburgh Bills of Mortality (eg one death from hydrophobia in March 1750, (9)), and the disease also appears among hospital admissions to the Royal Infirmary of Edinburgh. Two patients were admitted during the period 1742/1746 suffering from the 'Bite of a Dog' (10). However, the

frequency with which remedies appeared in newspapers, magazines and private diaries, suggests that the scale of the problem was perhaps greater than these figures indicate. The plethora of remedies may of course also reflect the fear of such an unpleasant death as rabies brings about.

Chambers in his book 'Domestic Annals of Scotland' makes various references to hydrophobia in the eighteenth century. In September, 1712, the minister of Eastwood reported the frequency there of madness in dogs. On April 7, 1738, there was a report of a butcher's dog going mad and biting other dogs. The magistrates of Edinburgh then ordered the slaughter of all strays. Three days later, Leith magistrates made a similar order. A Mr Kier was bitten by his dog:

"The dog was immediately killed, and Mr Kier carried to the sea and dipped" (11).

The Edinburgh Evening Courant for April 11, 1738, published three remedies for hydrophobia (see Page 143 ). The remedies are headed:

"For the benefit of the publick, and least any accident should happen at this critical time, when they are busy killing all the Dogs in Town, we shall present our Readers with the three following Receipts for the Cure of the Bite of a mad Dog" (12).

The Scots Magazine for 1768 records the story of an entire family near Haddington, East Lothian. They were all bitten by a mad dog at a fair, and their beasts were also bitten. All the victims died (13)

The official remedies for hydrophobia in England during the seventeenth and eighteenth centuries have been thoroughly reviewed by Mullett (14), who points out the numerous contributions to the Philosophical Transactions of the Royal Society during the period 1730

onwards, which referred to hydrophobia. Contributors included Dr Robert James (1705-1776), Dr Edward Nourse (1701-1761), Dr John Fuller and David Hartley. We shall refer later in the chapter (see page 152) to their orthodox remedies.

In this present chapter, particular attention will be paid to Scottish eighteenth century remedies, especially domestic ones. As will become apparent, overlap with contemporary English ones was considerable.

It has been indicated in earlier chapters that in examining home remedies for diseases it is impossible to draw a clear line between domestic and orthodox medical remedies. This is especially true in the case of hydrophobia. Even private collections of remedies contain many 'official' medical remedies, as well as strictly folk remedies.

One remedy in particular recurs throughout the eighteenth century in both home and orthodox remedies. This is the 'cure' prescribed by Dr Mead (1673-1754). The version given here is taken from notes written by Lady Stewart in about 1730:

"Doctor Mead's Receipt for the Bite of a Mad Dog which he vouched never failed in a thousand instances, as he himself had experienced in 33 years practice.

Take of Ash coloured ground liverwort half an ounce, (in Latin, Lichen Cinereus Terrestris) clean'd, dry'd, and powder'd, of Black Pepper powder'd, two Drachms, mix these twowell together, and divide the powder into four equall Doses, one of which must be taken every morning successively, fasting, in half a pint of Warm Cow's Milk; after these four Doses are taken, the patient must go into the Cold Bath, Cold Spring or River every morning fasting, for a month, and then every other Day for a fortnight longer.

He must dip as usual head foremost, and stay in as long as he can bear it agreeably, but must not stay in with his head out of the water longer than half a minute.

N.B. The first thing to be done, is to be bled in the Arm, Nine ounces for a Man, the Bleeding should be done as soon after the Bite as possible.

The Ash Colour'd ground Liverwort is a very common Herb and grows generally in sandy barren soils, all over England, October and November are the proper seasons to gather it." (15).

This recipe, as we shall see, became famous and was incorporated in the London and Edinburgh Pharmacopoeias as 'Pulvis antilyssus'.

The same recipe appears in a newspaper cutting among the Clerk of Penicuik papers (16). The newspaper is the Edinburgh Evening Courant for 1738, and may well have been the source from which Lady Stewart made her notes.

Dr Richard Mead was a distinguished London physician. His remedy for the bite of a mad dog persisted right through the eighteenth century, with various modifications. Mead himself had suggested various other forms of treatment for the disease; these appeared in his book "A Mechanical Account of Poisons" (1702). They included ashes of river crawfish, sponge of dog-rose, alyssum or madwort, and cold bathing (17). However, it was the liverwort recipe that became famous in his name.

Lewis, in his translation of the fourth edition of the Edinburgh Pharmacopoeia, comments on the ash-coloured ground liverwort:

"Lichen cinereus terrestris...remarkable for its virtue in the cure of the bite of a mad dog" as pointed out by "the great Dr Mead" (18).

Under the heading of Pulvis antilyssus, or powder against the bite of a mad dog, Lewis gives the following recipe:

Ash-coloured ground Liverwort, 1oz

Black Pepper,  $\frac{1}{2}$ oz

Mix, and beat into powder.

However, it seems that Mead was not himself the originator of this remedy, although he was responsible for making it famous. In a footnote, Lewis tells us:

"This powder was first published in the Philosophical Transactions, No. 237 from Mr Dampier, and afterwards put, in the year 1721, into the Pharmacopoeia Londinensis, under the title it bears in this place at the desire of Dr Mead who had great experience of its good effects." (19).

A slightly new variant of the Pulvis antilyssus appears in the Scots Magazine for February, 1751:

"The only receipt against the bite of a mad dog, which never yet failed.

Take dwarf-box, ash-coloured liverwort, wild periwinkle, and wild trefoil, (the best time for laying in a stock of the latter is in June), of each an equal quantity. When they have lain by to be sufficiently dried, rub them, and sift them into a fine powder. Then give three quarters of an ounce in a pint of new milk fasting to either man or dog; let it be repeated for three mornings; the sooner the better after the bite." (20)

If one attempts to assess Dr Mead's recommendations in the light of present-day knowledge of hydrophobia, it seems clear that the initial bleeding from the arm might have been of some benefit if the site of the bleeding coincided exactly with that of the bite, so that the saliva containing the rabies virus would be washed out of the tissues. However, bleeding in quantity was clearly a bad idea, and would simply serve to weaken the patient. Bleeding was a frequent recommendation in printed

eighteenth century remedies for hydrophobia. One author goes so far as to suggest repeated bleeding from a vein in the arm, each time until the patient is too weak to stand, with warm herbal baths between bleedings. Admittedly, this drastic treatment was reserved for 'desperate' cases of hydrophobia 'who might otherwise be condemned to be smothered' (21).

It is difficult to see how cold baths, or lichen and pepper, could be of the slightest value in treating hydrophobia. Probably the same applies to the other remedies suggested by Dr Mead. The suggestion of using wild periwinkle, given in the recipe on page 142, is of some interest, since this plant is now known to contain the powerful vinca-alkaloids, currently used in the treatment of some forms of cancer (22). However, whether it could conceivably have had any anti-viral effect on the rabies virus is simply a matter of speculation.

The same number of the Edinburgh Evening Courant in which Dr Mead's remedy appeared published two others. One is by Dr Boerhaave (Hermann Boerhaave, 1668-1738, Professor of botany and medicine at Leyden), who was, according to Guthrie (23), "the greatest clinical teacher of the eighteenth century". The remedy is as follows:

"Take six ounces of Rue without the Stalks, Garlick picked from the Skins and well beat, and Mithridate, of each four ounces. English Tinn scraped to dust four ounces. Ash coloured Liverwort one handfull. Boil all these in Seven Scots pints of old ale unto Seven Chopins then strain and keep it in bottles for use.

For a man that is bitt give seven spoonfulls in the morning fasting and let him fast two hours after it, applying every day some of the materials that remain after the Liquor is strained warm to the wound or part Bitt tho' there is no wound and this at any time within the Nine Days but the sooner the better. For a Beast give it cold. To a Sheep three spoonfulls To a Dog four, to a Horse or

Cow seventeen or eighteen conform to their Bulk. Give it seven or eight Mornings successively to all of them.

Probatum est sine defectu." (24)

This recipe, like that of Dr Mead, has also been copied by Lady Stewart into her private collection of recipes (25).

Rue was evidently a traditional herb to use in the treatment of hydrophobia. It is one of two herbs recommended for rabies by John Pechey M.D., in his 'Compleat Herbal' of 1694 (26). (The other herb that Pechey recommends in this context is Burnet or Pimpinella vulgaris). Rue also appears in an undated remedy for the bite of a mad dog among the Clerk of Penicuik papers. The recipe (c.1700) contains

"Leaves of rue, vervain, sage, plantane, polypody, wormwoode, mint mugwort, Baum, betony, hypericon.....let them all be gathered when they are in greatest strength which is about the full moon in June and speedily dryed in a hott sun to be kept for use and so be yearly renewed." (27).

The instructions for gathering the herbs at full moon smack somewhat of witchcraft, but were probably based on the accurate observation that herbs gathered just before flowering are indeed at their most active. Lewis expresses the same idea in a rather more scientific way in his translation of the fourth edition of the Edinburgh Pharmacopoeia:

"Herbs are to be gathered at the time of their strength when their leaves are perfectly formed, but before they have unfolded their flowers" (28).

For the species mentioned in the above recipe, when growing in Scotland, this time would indeed be around mid-June (which might or might not coincide with full-moon!

Another recipe reminiscent of Boerhaave's appears in the Scots Magazine for July 1741:

"A Cure for the Bite of a Mad Dog by a Person of Note"

Take two quarts of strong ale, or, if you cannot have ale, wine; red sage and rue, of each an handful and a half; twelve cloves of garlic, bruised; of tin and pewter scraped, two spoonfuls; of London treacle (or Venice treacle) an ounce: Boil these close covered till half be consumed; stir in the treacle when the rest is boiled. Pour it into bottles, cork it close, and it will keep a year. Give three spoonfuls morning and evening. One pint English is sufficient for man or beast.

Garlick, rue and salt, pounded together, may be applied to the wound.

N.B. This medicine has stood a trial of fifty years experience, and was never known to fail" (29).

Virtually the same recipe appears in the Appendix of the Scots Magazine for 1744: it consists of rue, garlick, Venice treacle, pewter scrapings, all boiled in ale,

"This the author believes (by God's Blessing) will not fail, if it be given within nine days after the biting of the dog. Apply some of the ingredients from which the liquor was strained to the bitten place. N.B. This receipt was taken out of Cathorp Church, Lincolnshire, the whole town being bitten with a mad dog; and all that took this medicine did well, and the rest died mad." (30).

It is clear that the authors of different remedies borrowed extensively from each other, and a 'new' remedy seems frequently to have consisted of an earlier one with additions. This is probably one of the factors accounting for the polypharmacy of the eighteenth century. Instead of new ideas replacing old, they tended to be added on. Thus it is very striking to compare Pechey's modest recommendation of rue for

the treatment of hydrophobia with the recipe just quoted which contains three herbs, two metals and the famous London Treacle, itself compounded of about sixty assorted ingredients (31). (Lewis' recipe for Venice Treacle contains sixty-three ingredients, some of them compound (32)).

Considering for a moment the herbal ingredients of the recipes so far mentioned in this chapter, reference to Table I on page 168 will show that, while none of them is likely to have been life-saving in the face of rabies virus, some of them have properties that will have helped some of the symptoms. Some (eg Baum, Hypericon) are sedative, and would ~~calm~~ calm the victim; some (eg rue, mint, sage) are spasmolytic and might lessen slightly the muscle spasms of hydrophobia. The only known property of the much-vaunted ash-coloured liverwort is that it is a mild purgative! Preparations such as London or Venice Treacle, which contain opium, are definitely contra-indicated in rabies, since morphine actually favours the virus! (33).

One extremely important point in considering these remedies, - and one, incidentally, that was probably not fully appreciated at the time, - is that some of them suggest, in addition to oral doses of the remedies, local application to the site of the bite. Almost as an afterthought, Dr Boerhaave's method (see pages 143-4) suggests that the victim apply "every day some of the materials that remain...to the wound or part bitt". It is highly unlikely that any of the herbal constituents in this remedy, even applied locally, would affect the progress of the rabies virus, but the traces of tin could slow down its multiplication. In the modification of Boerhaave's recipe given on page 145, the local application of garlic, rue and salt could likewise help (especially the salt) to cauterise

the wound.

There are two interestingly simple suggestions for the treatment of hydrophobia among the Clerk of Penicuik family papers. The first is a note on wound treatment, which suggests

"If it be a wound from the bite of a Dog or cat, wash it with spirits"  
(34)

If done immediately after the bite, this treatment would certainly have deterred the progress of the virus, and, if thorough enough, might have destroyed it all together.

The second "easy remedy for the bite of a mad dog" was communicated to Sir John Clerk by his friend Mr Roger Gale of Scrutton in Yorkshire. The method is to bathe the wound in salt and water, and then bind dry salt to the wound. This remedy was

"so much experienced by a certain country physician in England, that he would willingly go among mad dogs." (35).

Again, though one of the simplest, this was probably one of the most effective of the remedies so far mentioned. The incident of Mr Kier of Leith (See page 139), who was dipped in the sea after being bitten by a mad dog, also reflects the true idea that a salt water wash was beneficial.

One often finds that home remedies (and, indeed orthodox ones too), in eighteenth-century Scotland were a surprising mixture of sense and nonsense. Cheek by jowl with these two admirable pieces of first-aid advice, among the Clerk papers, is the following novel remedy:

"For preventing madness in animals bit with mad dogs:

Cut a piece out of each ear of the creature bit which may do likewise in men and women. This is the common practise of the Fleshers

in Dalkeith. Probatum est semper." (36)

If there was any rationale at all behind this practice, it had presumably evolved from the sound idea of cauterising or removing tissue from the region actually bitten.

The minister of Elgin, the Rev. Mr Shaw, in an Appendix in Pennant's 'Tour of Scotland' (1774), tells us

"When one is bit by a mad dog, as often happens in the highlands, he with a razor immediately cuts out the flesh of the part wounded, sucks the blood in plenty, and covers the wound with a handful of cobwebs; or if he has not the courage to cut out the flesh, and thereby prevent the poison from mixing with the blood, he causes the wound to be well sucked, and then foment it with warm oil or melted butter. I have seen these cures performed with remarkable success." (37).

Evidently, even as late as 1774, Dr Mead's famous method of treatment did not penetrate to the highlands. Strictly speaking, if this advice were carried out thoroughly, it would probably be far more effective in preventing rabies from developing than would Dr Mead's method. The procedure recommended is much the same as that used for snake bites. The use of cobwebs is interesting: they would serve to coagulate the blood in the wound after surgery, and also to reduce the risk of secondary infection, since they have a significant antibiotic content.

Another minister, of Lamington, in Lanarkshire, records an interesting incident, of a mad dog running wild in a lime quarry. One of the workers, whose hands were covered in lime, was bitten in the hand, as were several of his colleagues. All those bitten died, save the man whose hands were covered with lime, which presumably effectively cauterised the wound. (38).

Another local, more complicated (though probably less effective) application for the bite of a mad dog appears among the notes made by Lady Stewart. She recommends treating the bite with Wade's balsam, a soothing and mildly antiseptic ointment composed of Balsam, Styracis, Aloes, Benjamin, Myrrh, Frankincens, Angelica roots, and St John's Wort flowers (39). This balsam was recommended by Lady Stewart for treating a variety of ills. It will be considered in more detail in Chapter on the treatment of wounds. Here it is sufficient to note that it would probably be of little value against the rabies virus.

Lady Stewart's notes contain a number of hydrophobia remedies, perhaps because they were written during the outbreak of hydrophobia referred to in the Edinburgh Evening Courant in 1738 (see Page 139). We have already seen (page 140) that she copied out Dr Mead's advice in full. Another recipe that Lady Stewart recorded also became famous during the eighteenth century, under various names, such as Cobb's Powder, or the Tonquin Medicine:

"An Infallible Receipt for the bite of a Mad Dog, used in the East Indies, where it is never known to fail, though the Distemper among Dogs is common.

Twenty-four grains of fictitious Cinnabar

Twenty-four grains of native Cinnabar

Sixteen grains of the best musk

Pulverise them all together very fine and take them in a tea cup full of Arack or for want of it in the same quantity of French brandy.

It is to be taken as soon after the bite as possible and for thirty days by way of prevention." (40).

This remedy, attributed to Sir George Cobb, who reported its use in the East Indies, persisted with various modifications throughout the eighteenth century. It appears also among the Clerk of Penicuik family papers, communicated personally by Dr Clerk (uncle to Sir John) (41).

Native cinnabar is the bisulphide of mercury. 'Fictitious' cinnabar presumably refers to what Lewis describes in the Edinburgh Pharmacopoeia as 'Cinnabar of Antimony', composed of sulphur, mercury and antimony (42). The musk is a still more obscure item of the Materia Medica. Lewis tells us:

"Moschus, musk: collected in a little bag situated near the umbilical region of a particular kind of animal described by Tavernier.

Dr Wall of Worcester makes great claims for it in treatment of mad-dog bite" (43).

One wonders what the apothecary actually used for musk!

As regards the effectiveness of Cobb's Powder, the mercury in the cinnabar would have had some anti-viral activity, though the preparation would probably have been more effective applied locally to the area bitten.

Lady Stewart's collection also includes a remedy for a mad dog bite 'by a French phisician', consisting of calcined inner shells of male oysters, the powder to be taken in white wine (44).

Another version of Dr Mead's recipe also occurs, under the heading "One" (recipe) "from Allien's Dispensatory". It consists of ash-coloured ground liverwort and black pepper, this time in equal quantities, "dissolved in any convenient Liquor".

There is an interesting footnote to this recipe:

"This is used by the London phisicians with great success, none being observed to fall into the Hydrophobia who had taken this befor the symptoms thereof did appear". (115).

This footnote hints at an important point to consider when examining the claims for success of the various rabies remedies. Undoubtedly success was sometimes attributed to a particular treatment when the patient was not in fact suffering from rabies. If the symptoms had not appeared, it could not be proved whether or not rabies would have developed if no treatment had been given.

It is surprising to find that John Moncrief, author of "A Poor Man's Physician" (1712), who provides such an abundance of home remedies for nearly every known eighteenth century complaint, has almost nothing to say on the subject of hydrophobia. His only reference to it is to note that

"Agrimony, drunk with wine, is best, of all other, for Serpent's, Men's or Mad Dog's Biting" (146).

This concludes the collection of private remedies for hydrophobia that have been recorded from eighteenth century family papers. The remainder of this chapter will consider the strictly orthodox medical treatment for rabies during the second half of the century; it should by now be abundantly clear, however, that in the case of hydrophobia, the distinction between home and orthodox remedies is a purely artificial one.

Apart from Dr Mead's medicine, and the 'East Indies Specific', the third main type of medical treatment for hydrophobia in the eighteenth

century was the use of Turpith or Turbeth mineral, a mercurial preparation used in medicine from the time of Paracelsus. Wootton tells us that:

"Turbith mineral was a secret preparation with Oswald Crollius who gave it this name, probably, it is supposed, on account of its resemblance in colour to the Turbethum (Convolvulus) roots which were in his time much used in medicine. It is a subsulphate, made by treating mercury with oil of vitriol and precipitating with water." (47).

Dr James, of the London Royal College of Physicians presented to the Royal Society his recipe for the bite of a mad dog. It is reproduced in the Scots Magazine of 1741, as follows:

"First, I would rub into the place wounded, as soon as possible, a dram of the Neapolitan Ointment: I then would give Turpeth mineral, by way of vomit, in a dose proportioned to the age and constitution of the patient; and this I would repeat more than once, at intervals, which would secure it from raising a salivation; always remembering to rub the wound once a day, or oftner, with the Mercurial Ointment. In the mean time I would not omit the Pulvis Antilyssus, consisting of Ash-coloured Liverwort and Pepper, recommended by Dr Mead. Then let the patient go into cold water every morning for a month: but when, thro' neglect, any symptoms of approaching madness should appear, I would increase the quantity of Mercurial Ointment, and give Mercury, in some form or other, internally, in as large doses, and those as often repeated as could be done, without hazarding the patient by a salivation too precipitate." (48).

Dr James' method seems to represent a real advance in the emphasis he places on local application of mercury, which in common with other metals, has some antiviral activity (49).

Dr Young evidently favoured the use of antimony and melted beeswax. According to Sir John Clerk

"Of 105 who took it, not more than 3 or 4 died" (50).

Of course, one could argue that only these three or four people in fact developed hydrophobia.

As Mullett has pointed out (51), there was a vast amount of medical literature published on the subject of hydrophobia during the second half of the eighteenth century. Most of it was by qualified doctors (eg in 1752, Brodie published *De Rabie Canina* at Edinburgh, in 1755 Bruce published *De Hydrophobia*, also at Edinburgh). The treatments recommended by these authors were for the most part variants on the themes of cauterization, Mead's powder, Tonquin powder, sea bathing and Turpith mineral.

A bizarre theory concerning hydrophobia was proposed by a French physician, M. Le Camus. He suggested, in 1755, that "a sort of liquid phosphorus" is present in the blood of mad dogs, and that camphire "changes its nature, by being mixed with the poison of the hydrophobia" (52). He recommended the use of camphire, both internally and externally, also sea-bathing, scarifying the wound, using cupping-glasses, burning etc. Of these various measures, the sea-bathing and the cautery of the wound would obviously have been of more value than the camphire (obtained from the wood of Cinnamomum camphora, see Table I, page 168 ).

A theory with a surprisingly modern ring was suggested in 1735 by an anonymous contributor to the London Magazine, who believed that mad dog foam consisted of

"minute particles or animalcula, mixt with saliva" (53).

The Scots Magazine throughout the eighteenth century contains numerous references to hydrophobia. These include extracts from the contemporary medical publications, as well as letters written to the magazine by both medical men and laymen. It would be both tedious and repetitive to give all these in full, but they will be used to illustrate

the history of hydrophobia in Scotland during the second half of the eighteenth century.

An entry in the Scots Magazine for 1750 is of particular interest in that it attempts a critical survey of all the available medicines, of Dr Mead's "Antilyssus, Dr James's Turpeth Mineral; the Musk and Cinnabar". Speaking of Dr Mead's medicine, the author says:

"Dr James in his dispensatory says, he never yet knew it experienced in man, but where other methods have been tried at the same time; so it was not possible to know to which to ascribe the cure; but has known it given to dogs, and not often with success. He has also been informed, that a man near Smithfield, - another at Northampton, - another at Bury, took this medicine, from the first, with the utmost regularity, and yet all died mad." (54).

Other letters in the same year reflect the confusion and disagreement among medical men as to the best method of treatment (55).

It is interesting that, despite his criticism of Dr Mead's medicine, Dr James includes it in his own prescribed treatment (see page 152). The fact that so many multiple treatments were prescribed probably reflects that none was really successful or reliable.

To return now to our survey of remedies through the century, the Scots Magazine for 1753 reports the case of a girl bitten by a dog which subsequently proved mad. She developed hydrophobia and was treated successively with sea-bathing, Pulvis antilyssus, Sir George Cobb's powder and opium, musk and cinnabar, and rubbing with salad oil.

Eventually she recovered. The case was reported by a Bath physician, Christopher Nugent, M.D. (56).

In 1755 we read the report of the case of a Brigadier in the French army, attended by Dr Le Comte, physician at Rethel. The latter satisfied himself that his patient was indeed suffering from hydrophobia

"and though he had no great opinion of the virtue of the medicine he proposed, yet being at a loss to substitute a better in its stead, he consented that the Brigadier should take it".

The medicine in question was calcined male oyster in new-laid eggs. The Brigadier recovered:

"There is the utmost reason to think that the medicine had its effect. But, after all, the waters of Plombiers quite restored him to his former health." (57).

Meanwhile, another French physician, Mons. Darlue, at Callian in Provence, treated his patients with mercurial ointment, turbith mineral and powder of Palmarius. Those whose wounds were still open when treated, survived (58).

The numerous other articles in the Scots Magazine concerning hydrophobia relate cases of man and beast bitten by mad dogs, and give remedies based, for the most part, on those already described. Occasionally there is a new suggestion. A letter written from Perth in 1762 recommends oil of cloves rubbed into the wound, also searing with a red-hot iron, as recommended by Celsus (59). Another letter, in 1764, reports that draughts of vinegar cured a man in Venice (60),

while in 1768, a herbal cure, viz 'Matrisylva', is reported from Brandenburg (61).

In 1771 comes a report on the late Mr Dyer's method of curing the bite of a mad dog. The treatment consists in keeping the wound open, bleeding, purging, and medicines compounded of loaf sugar, saltpetre and sal-ammoniac. In cases of relapse, give turbith mineral (62). In the same year, there is a letter from a surgeon recommending the use of mercurial ointment for hydrophobia, as detailed by Dr Layard, physician to the Princess dowager of Wales, in a pamphlet published in 1762 (63). Another letter, from Dr Wolf of Warsaw, contains a horrific account of seventeen people (and numerous cattle) bitten by a mad wolf. The doctor describes treatment of eleven of them with a great variety of medicines. Four died, the remainder survived. All were given the herbs Matrisylva and Anagallis flore phoenico, and all took pulvis palmarij. In addition, all the patients were given either unguenti Neapolitani, or vinegar, tinct. papaveris and Rob sambuci, or camphire and saltpetre, or mosch and cinnabar, or salis ammoniaca cum calc.viv. parati, or salis tartari cristallini (For explanation of these ingredients, see Table I, page 168).

The doctor tells us that

"The muscus cinereus terrestris could not be got, or else that would have been prescribed also".

Commenting on the results of all these varied treatments, the doctor says:

"Now you see, my dear Sir, that the bark, the mercury, the acids, the camphire, the musk, the feeding on all the most famous herbs, the sweating, the cura antiphlogistica, are no specifics. I don't know

what to say to the alkalies. The danger is not yet over, and there are still four people, who used nothing, in as good health as my patients." (64).

This comment sadly reflects the awareness that there was not any one reliable treatment for hydrophobia - and, indeed, that the "success" rate was as great for untreated patients. However, the disease was so unpleasant that physicians had to do their best to treat it.

In 1772 a Durham surgeon, W. Wrighton, wrote to the Scots Magazine to report on the case of a 15-year-old boy successfully treated with Tinctura Thebiaca, pure opium, boluses of musk and cinnabar (native and fictitious), and plaster of camphor and Tinctura Thebiaca. The surgeon ascribed the cure mainly to the use of opiates. (65).

In 1777 a case was reported of a man cured of the bite of a mad dog by having salt rubbed into the wound, after the wound had bled (66). Also in 1777, a now familiar recipe appears, the ingredients being ash-coloured liverwort, rice, garlick, Venice treacle and scraped pewter. Although the only original constituent is rice, this is presented as a new recipe:

"It is said, that Mr Kirkland, at Gogar, has administered this medicine both to the human species and to cattle; and that during thirty years experience he seldom or never found it fail of success if used within eight or nine days after the bite." (67)

In 1785, the Scots Magazine describes a method of treatment for hydrophobia published by the authority of the States of Berne. The wound is to be washed with Hungary water, and cauterized using linen on fire. Then a plaster is to be applied, composed of Venice Treacle, powder of Viper and calcined oyster-shell, these same constituents also

being taken internally as a powder, fasting, every day for three to four days. Undoubtedly, the initial washing and cauterisation of the wound was the most valuable part of this remedy. (68).

In 1790, Sir George Cobb's "cure" from Tonquin reappears again (69). In 1791 comes a report of a cure by Dr Shadwell

"By forcibly conveying down the throat of the patient four ounces of sweet oil daily for about a week, and anointing with the same seven or eight times a day" (70).

Towards the end of the century, in 1794, a rather bizarre and rash-sounding "cure" is published in the Scots Magazine, from Dr de Moneta, Physician to His Polish Majesty. The doctor advises covering the wound with fresh earth or snuff and imbibing saliva of the animal, then washing the wound with water and thereafter applying compresses of butter and vinegar, meanwhile taking vinegar internally. The rationale behind imbibing saliva from the mad dog is far from clear; it seems an extraordinary suggestion: however, if followed up quickly with vinegar, which would literally pickle the virus, it might have done little harm. Again, the washing of the wound was probably the most important part of this treatment.

Finally, in 1798, we find a remedy which takes us back to Celsus and the first century A.D., and was probably (and ironically) the most effective of any:

"Dr John Brickell, of Savannah, in a letter addressed to the selectmen of Boston, has announced the following successful method of preventing the bad effects of the bite of a mad dog. His method is to wash the bitten part with 20 or 30 kettles full of water

poured from the spout of the kettles, or a mug; and afterwards to burn the wound as deep as the bite has penetrated, with the end of a case-knife, or any other iron made nearly red hot. The washing is intended to carry away, from in and about the wound, the saliva; and the burning is intended to extirpate any infected part. This remedy, he observes, has often been applied in Georgia, without once failing" (72).

William Buchan.MD., in his "domestic Medicine", the first edition of which appeared in 1769, has some pertinent remarks to make on the subject of hydrophobia. The following quotations are taken from the edition of 1774. He relates the principal medicines, viz. Dr Mead's, the East Indies specific, and the following "good antispasmodic Medicine:

Take of Virginia Snake-root in powder, half a drachm, gum asafoetida twelve grains, gum camphire seven grains, make these into a bolus with a little syrup of saffron" (73)

Alternatively, use a mixture of nitre, Virginia Snake-root and camphire. Mercury and vinegar are also mentioned as possible forms of treatment.

Buchan makes the following comment on Dr Mead's medicine:

"Though we give this prescription on the credit of Dr Mead, yet we would not advise any person, who has reason to believe that he has been bit by a dog which was really mad, to trust to it alone. Mead was an able physician, but he seems to have been no great philosopher, and was sometimes the dupe of his own credulity." (74).

Buchan himself was in favour of the following procedure: first, he recommends

"If a person be bit in a fleshy part, where there is no hazard of hurting any large blood-vessel, the parts adjacent to the wound may be cut away. But if this be not done soon after the bite has been received, it will be better to omit it.

The wound may be dressed with salt and water, or a pickle made of vinegar and salt, and afterwards dressed twice a-day with yellow basilicon mixed with red precipitate of mercury."

He then recommends taking Dr Mead's medicine, rubbing in mercurial ointment, taking purges, cold baths, boluses of snake-root, etc.; in short, he recommends backing all horses! Probably his first-aid advice is much the soundest of his recommendations. He admits he has no personal experience of dealing with hydrophobia, and refers the reader to Dr Tissot's regimen, taken from 'Avis au Peuple', of bleeding, bathing, clysters, mercurial ointment, Cobb's powder, Snake-root boluses and Peruvian bark (75).

Summarising treatment of hydrophobia in Scotland in the eighteenth century, this consisted for the most part of the use of Dr Mead's Ash-coloured Liverwort, combined with various ingredients; of mercury in various forms; of bathing in water or salt-water and, in the case of orthodox medical practice, of extensive bleeding. Cauterisation, either by surgery or use of local applications, though probably the most effective method by far, was not always used.

It is of interest to note that among the bewildering array of remedies on offer during the eighteenth century, some appear to have been occasionally successful. There appear to have been some survivors of hydrophobia (e.g. Scots Magazine 1777, (76)), who were cured either spontaneously or as a result of, or despite their treatment. Nowadays, once the symptoms have developed, rabies is still generally fatal (77), so symptomatic treatment of the disease has not really progressed much.

Davidson's textbook of Medicine tells us

"Two cases of probable rabies treated by tracheostomy and modern methods of maintained respiration have survived but usually only palliative treatment is possible once symptoms have appeared" (78).

Another modern textbook states that

"Surgical debridement, thorough washing with soap and water, and local injection of antisera are probably the most useful forms of local treatment" (79).

The first part of this treatment bears a remarkable similarity to that suggested by Celsus in the first century A.D., or to that published in the Scots Magazine for 1798. The life-saving anti-sera of course were not available until after the work of Pasteur, who performed the first successful vaccination against rabies in 1885 (80).

The importance of preventive measures in controlling rabies, though not fully appreciated in the eighteenth century, was at least partially recognised: - witness the shooting of stray dogs referred to in the Edinburgh Evening Courant for April 11, 1738 (see Page 139).

In an anonymous medical manuscript in the Scottish Records Office, the author, himself evidently a practising physician, observes that in Geneva the bites of mad dogs are rare, and there is an annual edict there for shooting stray dogs. As a result,

"Monsieur Cramer of Geneva in 48 years never saw but one case of a mordure de chien enragé" (81).

In Britain, there was a suggestion (see, for example, Scots Magazine 1778), that 'worming' dogs, i.e. removing a tendon from the tongue, prevented them biting and might therefore be valuable in preventing rabies (82).

In concluding this survey, it is interesting to look at a complete list of all the ingredients mentioned in these remedies, and to attempt to estimate their efficacy, if any. In Table I (page 168), these ingredients have been identified as far as possible in modern terms, and an indication of any known relevant pharmacological action has been added. Mullett is of the opinion that the metals may have been effective against the rabies virus (83). Turk and Porter tell us that the rabies virus

"is highly resistant to most antiseptics, which are therefore of little value for application to bites which may contain it" (84). The possible action of the multitude of herbal ingredients taken internally is, at the present day, largely unknown. It does, however, seem unlikely that any would have a dramatic curative effect. At best they would probably slightly alleviate symptoms. Pankhurst, in his article 'History and Traditional Treatment of Rabies in Ethiopia' (85), has pointed out that many of the nineteenth and twentieth century remedies used there are herbs with purgative and/or diuretic action. As in eighteenth century Scotland, the only really effective traditional methods of treatment are local cauterisation procedures.

REFERENCES

- (1) Thomson, W.A.R., Thomson's Concise Medical Dictionary. Churchill Livingstone, Edinburgh, 1975. Page 277
- (2) Turk, D.G. & I.A. Porter A Short Textbook of Medical Micro-Biology. Third edition, 1974. English Universities Press, London. Page 182.
- (3) Muir's Textbook of Pathology, Ed. J.R. Anderson. Tenth edition, Edward Arnold, London, 1976. Page 699.
- (4) Guthrie, D. A History of Medicine. Nelson, London, 1945. Page 95.
- (5) Mullet, C.E. **Bull. Hist. Med.** 18, pp 44-66.
- (6) Ibid.
- (7) Scots Magazine, Volume XXXIV, 1772, page 454.
- (8) Edinburgh Evening Courant, Number 188, 11 April, 1738.
- (9) Scots Magazine, Volume XII, March 1750, page 52.
- (10) Scots Magazine, Volume IX, April 1747, page 199.
- (11) Chambers, Robert Domestic Annals of Scotland, from the Revolution to the Rebellion of 1745. Third edition, Chambers, Edinburgh, 1874. Volume III, Appendix, entry for April 7, 1738.
- (12) Loc.cit., (8)
- (13) Scots Magazine, Volume XXVIII, 1766, page 502.
- (14) Op.cit., (5)
- (15) Broughton Cally Papers, Scottish Records Office, Edinburgh. SRO GD 10/911.
- (16) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh. SRO GD 18/2125.
- (17) Op.cit., (5)

- (18) Lewis, W., M.B., F.R.S. The Pharmacopœia of the Royal College of Physicians at Edinburgh. Faithfully translated from the Fourth Edition, with Useful Notes....London, John Nourse, 1748 Page 41.
- (19) Ibid., page 169.
- (20) Scots Magazine, Volume XIII, 1751, page 89.
- (21) Scots Magazine, Volume XVII, 1755, page 298.
- (22) Girdwood, R.H. Clinical Pharmacology. 24th edition. Balliere Tindall, London, 1979. Page 514.
- (23) Op.cit., (4).
- (24) Loc.cit., (8)
- (25) Loc.cit., (8)
- (26) John Pechey. The Compleat Herbal of Physical Plants. London, Henry Bonwicke, 1694, page 161.
- (27) Loc.cit., (16)
- (28) Op.cit., (18), page 98.
- (29) Scots Magazine, Volume III, July 1741, page 304.
- (30) Scots Magazine, Volume VI, 1744, page 624.
- (31) Wootton, A.C. Chronicles of Pharmacy. Macmillan, London, 1910. Volume II, page 38.
- (32) Op.cit., (18). Part XII, pp177, ff.
- (33) Op.cit., (5)
- (34) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh SRO GD 18/2142.
- (35) Loc.cit., (16)
- (36) Ibid.
- (37) Pennant, A Tour in Scotland. Warrington, 1774. Appendix II by Rev. Mr Shaw.

- (38) Sinclair, **Sir J.**, Statistical Account of Scotland, 1791
- (39) Loc.cit., (15)
- (40) Ibid.
- (41) Loc.cit., (34)
- (42) Op.cit., (18). Page 330.
- (43) Ibid., p.72 ff
- (44) Loc.cit., (15).
- (45) Ibid.
- (46) The Poor Man's Physician, or the Receipts of the Famous John Moncrief of Tippermalloch. Third edition, Edinburgh, 1731. Page 172.
- (47) Op.cit., (31). Volume II, page 417.
- (48) Scots Magazine, Volume III, 1741, page 500.
- (49) Op.cit., (5)
- (50) Loc.cit., (34)
- (51) Op.cit., (5)
- (52) Scots Magazine, Volume XVII, 1755, page 232.
- (53) Op.cit., (5)
- (54) Scots Magazine, Volume XII, 1750, page 414.
- (55) Scots Magazine, Volume XII, 1750, page 429.
- (56) Scots Magazine, Volume XV, 1753, page 317.
- (57) Scots Magazine, Volume XVII, 1755, page 298.
- (58) Scots Magazine, Volume XVII, 1755, page 390.
- (59) Scots Magazine, Volume XXIV, 1762, page 519.
- (60) Scots Magazine, Volume XXVI, 1764, page 325.
- (61) Scots Magazine, Volume XXVIII, 1766, page 398.

- (62) Scots Magazine, Volume XXXII, 1771, page 254.
- (63) Scots Magazine, Volume XXXII, 1771, page 636.
- (64) Scots Magazine, Volume XXXII, 1771, page 682.
- (65) Scots Magazine, Volume XXXIV, 1772, page 121.
- (66) Scots Magazine, Volume XXXIX, 1777, page 120.
- (67) Scots Magazine, Volume XXXIX, 1777, page 245.
- (68) Scots Magazine, Volume XLVII, 1785, page 320.
- (69) Scots Magazine, Volume LII, 1790, page 330.
- (70) Scots Magazine, Volume LIII, 1791, page 147.
- (71) Scots Magazine, Volume LVI, 1794, page 96.
- (72) Scots Magazine, Volume LX, 1798, page 366.
- (73) William Buchan, M.D.. Domestic Medicine. Third edition, London, 1774, page 522.
- (74) William Buchan, M.D., Domestic Medicine. Glasgow, 1806. Footnote, page 419.
- (75) Op.cit., (73), pages 524-527.
- (76) Scots Magazine, Volume XXXIX, 1777, page 538.
- (77) Davidson's Principles and Practice of Medicine. Ed. J. MacLeod. Twelfth edition, Churchill Livingstone, Edinburgh, 1977, page 882.
- (78) Ibid., page 883.
- (79) Op.cit., (2). Page 182.
- (80) Op.cit., (4), page 284.
- (81) Anonymous Manuscript, Scottish Records Office, Edinburgh. SRO, GD 125/33.
- (82) Scots Magazine, Volume XL, 1778, page 182.
- (83) Op.cit., (5).

(84) Op.cit., (2)

(85) Pankhurst, Richard. The History and Traditional Treatment of Rabies in Ethiopia. Med.Hist. 11, 1970, pages 378-389.

List of Ingredients of Hydrophobia Remedies, with their modern names  
and any known relevant pharmacological properties

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- Agrimony      Agrimonia eupatoria L.    vulnerary (Sch)
- Anagallis flore phoenico ?Anagallis arvensis L.    Toxic (Sch)
- Antimony, in fictitious cinnabar, also alone in Clerk recipe
- Baum      Melissa officinalis L.    diaphoretic, antispasmodic, sedative (Sch)
- Betony      Stachys officinalis (L.) Trevisan    heals infected wounds (Sch)
- Box, dwarf      Buxus sempervirens L.    causes vomiting and diarrhoea (Sch)
- Burnet      Pimpinella saxifraga L.    antispasmodic (Sch)
- Camphire    from wood of Cinnamomum camphora L.    rubefacient, mildly  
analgesic (M.)
- Cinnabar, fictitious    Mercury, antimony and sulphur
- Cinnabar, native      sulphide of mercury
- Cloves, oil of      from Syzygium aromaticum (L.) Merrill & Perry    disinfectant,  
analgesic (Sch).
- Cobb's Powder = Sir George Cobb's Powder = Tonquin Cure = Musk and Cinnabar.
- Garlick      Allium sativum L.    irritates skin (Sch): antibiotic (LK)
- General Wade's Balsam:    Styrax, Aloes, Frankincense, Myrrh, Angelica,  
St John's Wort.    See Chapter VII, page 173.
- Hungary Water    spirit of Olea europaea L. (Med. Bot.)
- Hypericon      Hypericum perforatum L.    sedative, antidepressant, encourages  
healing of wounds (Sch)
- Liverwort, ash-coloured    may be Peltigera canina, Hoffm    slightly purgative (P.)  
= Lichen terrestris = muscus cinereus terrestris.  
Mixed with pepper it formed Pulvis antilyssus.

Matrisylva ?

Mint *Mentha* sp. spasmolytic (Sch)

Mithridate contained about 50 ingredients, including opium

Musk 'Moschus, musk, is collected in a little bag, near the umbilical region of a particular kind of animal described by Tavernier' (Lewis, 1748)

Mugwort *Artemisia vulgaris* L.

Neapolitan Ointment = mercurial ointment

Oil, salad Olive oil is emollient and soothing (M.)

Opium from *Papaver somniferum* L. contains numerous alkaloids, narcotic, stimulant to C.N.S. (Sch)

*Tinctura papaveris* was probably prepared from this species.

Oyster shell, calcined: rich in calcium

Periwinkle *Vinca major* L. contains vinca-alkaloids

Pepper from *Piper nigrum* L.

Pewter silver and lead alloy

Plantane *Plantago* sp. leaves are healing (Sch)

Polypody *Polypodium vulgare* L. purgative (Sch)

Powder of Palmarius ?

Rice *Oryza sativa* L. nutritive, demulcent (P.)

Rue *Ruta graveolens* L. diaphoretic, antispasmodic (Sch)

Sage *Salvia officinalis* L. spasmolytic, stimulating (Sch)

Salis ammoniac (cum calc.viv.parati) ammonium chloride (with additives)

Salis tartari Potassium antimonyl tartrate emetic (M.)

Salt, sea-water Sodium chloride

Saltpetre Potassium nitrate, nitre

Sambuci Rob sambuci, from berries of *Sambucus nigra* L. diaphoretic, anti-spasmodic (Sch)

Tinctura thebiaca = Treacle, London or Venice

Treacle, Venice        Innumerable ingredients, some of them compound.

Treacle, London        Include opium.

Trefoil    ? Menyanthes trifoliata L.    sedative (Sch)

Turbith, Turpeth    subsulphide of mercury (W.)

Vervain    Verbena officinalis L.    vulnerary, stimulant, antidiarrhoeic (Sch)

Wormwoode    Artemisia absinthium L.    antiseptic, affects C.N.S. (Sch)

#### Key to Abbreviations

Sch    Schauenberg, P. & F. Paris    Guide to Medicinal Plants.    Lutterworth Press, London, 1977.

M        Martindale    The Extra Pharmacopoeia    23rd edition.    Pharmaceutical Press, London, 1952.

LK        Lelord Kordel    Natural Folk Remedies.    W.H. Allen, London, 1975

Med.Bot.    Medical Botany or History of Plants in the Materia Medica of the London, Edinburgh, Dublin Pharmacopoeias.    2 vols.    London, 1819.

P        Potter's New Cyclopaedia of Botanical Drugs and Preparations by R.C. Wren.    Health Science Press, Devon, 1975.

Lewis 1748    Lewis, W.    The Pharmacopoeia of the Royal College of Physicians at Edinburgh.    Faithfully translated from the Fourth Edition, with Useful Notes.....John Nourse, London, 1748

W      Wootton, A.C.      Chronicles of Pharmacy. 2 vols. Macmillan,  
London, 1910.

CHAPTER VII

Domestic Remedies for Wounds in Eighteenth Century Scotland

First Aid is one aspect of medicine which by definition, even today must be undertaken largely by non-medical people. In eighteenth-century Scotland, when medical help, particularly in the country, was scarce and expensive, most accidents had to be treated at home, and it is therefore not surprising to find among the kitchen books of eighteenth-century families, various recipes for treating wounds.

One of the most famous eighteenth century ointments for wounds was General Wade's Balsam, many variants of which are to be found in recipes belonging to this period. Lewis, in his translation of the Fourth Edition of the Edinburgh Pharmacopoeia, tells us in a footnote that the 'balsamum traumaticum' of the Pharmacopoeia

"is what is commonly called Wade's Balsam, from an extraordinary cure said to have been performed by it upon that gentleman. It is a French composition, and was handed about as a secret, under the name of Baume de Commendeur. It was first published in the Strasburgh dispensatory, with the title of Balsamum Persicum, and afterwards in the Parisian pharmacopoeia, under that of Balsamum commendatoris. The Edinburgh college has reduced the exuberancy of this composition." (1).

This remedy was a folk remedy, as well as an official one. A recipe for it appears among the Clerk of Penicuik papers, dated 1734. This version consists of Gum Benjamin, Olibanum or Malefrankincense, Balsam of Peru, Myrrh, Aloe Succotrin, all bruised and infused with rectified spirit of wine (2).

A more elaborate version appears in Lady Stewart's collection of remedies, this one dated 1735. (3). It contains Balsam Storax, Balsam Peru, Calamis, Benjamine impregnated with sweet almonds, Aloes Sucatrina, Cast Myrrh, Frankincense, Roots of Angelica and Flowers of St John's Wort,

all infused in best rectified spirit of wine. Lady Stewart describes "the Virtues" of this medicine thus:

"There is not cut of Iron Nails which is not Mortall but it Heals in Eight Days time by applying it with a Feather Cotton or Injectione provided you use nothing else to it first and if there was no tent or plaster.....You must always apply it cold. When it (the wound) has been drest with common Medicines before wash it with hott Wine before you apply this it will cure it tho' not so soon as..if you had used nothing else." (4).

Lady Stewart's reference here to tents and plasters is of particular interest, and we will return to this point later when considering orthodox medical treatment of wounds.

The recipe for Balsamum traumaticum as it appears in the fourth edition of the Edinburgh Pharmacopoeia consists of powdered benzoin, balsam of Peru and hepatic aloes in rectified spirit of wine (5). In the Hospital Dispensatory, Lewis tells us, the Balsam of Peru is replaced by Olibanum (6). This is one of very few instances where the orthodox medical recipe is actually simpler than the folk-medical counterpart.

Returning now to the home remedies for wounds, another recipe among the writings of Lady Stewart bears a name that is still familiar today, viz Fryer's Balsam . Nowadays this is known chiefly as an inhalant and cough remedy. Lady Stewart's recipe for this, which, she tells us, is used "for cureing all sorts of cuts, wounds, bruises", consists of Balsam Peru, Storax, Benjamin, Myrrh, flowers of St John's Wort and Angelica roots, all infused in rectified spirits of wine. (7). Clearly, this is a variant on the theme of Wade's Balsam.

A third ointment which Lady Stewart describes is Balaggan's Salve, "for curing wounds, ulcers, sores, swellings and sprains". The instructions for preparing it are as follows: melt 5lb hart's grease, or strained sheep's suet in a pan, then

"Take the herbs following in the Month of May when they begin to flower, Broad Leaved Plantin, Mallows, Niplewort, Clowns'allHeal, Avnes and the Heart of Burdock, of each two pounds."

Each herb is then beaten, one at a time infused for about two hours in the melted grease. Beeswax and resin are then incorporated (the former equal in weight to the concoction, the latter twice the weight of the concoction), and the whole mixture is stirred and heated gently for about four hours, then strained through a cloth. (8).

This is an interesting recipe, as it is full of therapeutically active ingredients. The herbs included in this and other wound remedies are listed, and where possible identified in modern terms, in Table I, page 193. Reference to this table will show that Balaggan's salve would have soothing as well as styptic (i.e. arresting bleeding) properties.

Clerk of Penicuik, writing about 1740, recommends

"For a wound especially in young people. Bind up the wound with cotton or flax while it is bleeding and do not open it till next day, nor wash it with spirits or any thing but if it's a wound from the bite of a dog or cat wash it with spirits." (9).

This strikes one as enlightened first-aid, in an era when even official medical practice usually included opening the wound and inserting ointments, dressing etc into it. We shall return to this point later.

A late eighteenth century remedy among the Logan Home papers

recommends for "wounds in cattle: apply Moss gathered from Ash trees" (10). In the same collection, there is an interesting remedy for a bruised eye. One applies to the bruise a rotten apple folded in cambric, and conserve of roses (11).

The following heroic, but doubtless effective remedy is reported by the minister of Elgin:

"Our natural physicians, when they find a toe or a finger hurt, and beginning to corrupt, they strike it off with a chizzel, and sere the wound with a hot iron, and soon cure it" (12).

Such word-of-mouth remedies as those described above were presumably used to complement such printed advice as was available to the literate public, for example in John Moncrief's book and, later in the century, in William Buchan's 'Domestic Medicine'. Let us now look at the remedies proposed by John Moncrief for the treatment of wounds. Those described here are taken from the third edition of his book 'The Poor Man's Physician' published in 1731 (13).

The various remedies are to be found scattered throughout the book, but for convenience are here divided into three categories: Styptics (i.e. applications intended to staunch bleeding), externally applied ointments, plasters and powders intended to promote healing, and internal medicines.

#### I Styptics

1. Egg-white drunk and applied to the wound
2. Cobwebs and salt applied
3. Drink ~~sulph~~ sulphy water boiled, or drink off steel
4. Eat and chew strong grass
5. Ashes of burnt linen applied
6. Cylinder of cloth inserted into wound
7. Pimpernel held between the teeth
8. Dried toad hung around the neck

## II Externally applied ointments, etc.

1. Quick lime in warm water
2. For a green wound "the coals of a beech-fire made into a powder and put into the wound or sore, healeth it presently, without any other thing, in a few days"
3. For a wound in the breast, drink woman's milk, and also make injections of the same into the wound
4. Doctor Davidson's Plaister for all green wounds and sores: litharge, oyl of olives, wine vinegar and water
5. "A Special good Salve or Ointment to cure any Wound or Sore, whether new or old" contains Salad-oyl, Wax Turpentine, Rosin, Mastic, Smallage, Wood-bine leaves, Plantain and Marigold leaves, tops of Hyssop.
6. To cleanse and heal green wounds use juice of St James-wort, tempered with honey and May butter and boiled to a salve.

## III Internal Remedy

As a "wound drink", take Agrimony, Betony, Sage, Plantain, Leaves of Ivy and Anemone, bruise them and make them up for a drink

The actual value of these various remedies is difficult to assess, particularly since most have so many ingredients, which themselves could interact. An attempt has been made in the table at the end of this chapter (page 193), to identify the various ingredients mentioned, and to indicate any known relevant pharmacological action. It will be seen from the table that a surprisingly large number of the herbal components have antiseptic, soothing and in some cases, styptic, properties.

The treatment of nose-bleeding, whilst not strictly part of wound management, has an obvious relevance here. The home remedies which

Moncrief lists for bleeding from the nose are numerous, diverse and interesting. They represent a strange mixture of sense and nonsense (though in Moncrief's defence it should be said that present-day folk remedies for nose-bleeds are, some of them, equally nonsensical. Perhaps such practices as dropping cold keys down a person's neck depend for their virtue on the efficacy of shock treatment to arrest bleeding).

For convenience, Moncrief's remedies for nose-bleeds are here divided into external applications, and substances to be placed in the nose.

#### I External Applications

These include:

1. Vinegar, or vinegar of roses, dropped into the ear nearest the bleeding, or a sponge dipped in vinegar applied to the forehead.
2. Cover patient entirely with wet cloths dipped in vinegar, or apply these to head.
3. Lay cold iron, or drop water, on to the neck.
4. Apply cupping glasses to the feet or hypochondria.
5. Throw cold water in the face.
6. Bind the temples with periwinkle (cf styptic number 7, page 176)
7. "A Bean, or Piece of Mony, bound to the Root of the Nose, between the Eyebrows, stoppeth the Flux of Blood".
8. Cataplasm of thyme and vinegar
9. Fomentation of Plantain, Knot Grass, Horse Tail, Shepherd's Purse, vinegar.

#### Internal Applications

Among these are

1. Vinegar and water snuffed up nostrils

2. Cobwebs and sugar snuffed up.
3. One's own blood, fried and snuffed, stops bleeding of the nose
4. Spiders bruised in a linen cloth, and held to the nose, or pulverised and snuffed
5. Take powder of Bole-armoniac and with a quill blow it into the nose
6. Burnt vitriol "is best of all"
7. "The cotton of an Inkhorn squeezed a little, and made into a Tent doth powerfully stop" nose bleeding
8. Vinegar and water held in the mouth, or drunk plentifully
9. Juice on nettle given inwardly or applied, or the root of nettle held in the mouth
10. Mints put into the nose
11. Egg-white applied in cloth

Moncrief's external applications can have had little value in this context, except in so far as any cold, wet object held on the face could help constrict the blood vessels.

The internal applications are more interesting: - some of them would undoubtedly help to arrest bleeding. Thus, cobwebs would help the blood to clot, as would any soft, fibrous material such as the cotton of Inkhorn. Egg-white would probably act similarly (we find this recommended by both Moncrief, and, later in the century, by Buchan, as a wound-dressing, too).

Buchan, in his book 'Domestic Medicine', advises against attempts to stop nose-bleeds, unless these are extreme. In an extreme case

"the patient should be set nearly upright with his head reclining a little and his legs immersed in water about the warmth of new milk."

In addition, Buchan advises placing up the nose dry lint, or lint dipped in spirits of wine, brandy, blue vitriol

"or a tent dipped in white of an egg well beat up, may be rolled in a powder made of equal parts of white sugar, burnt allum, and white vitriol, and put up the nostril from whence the blood issues."

This latter suggestion is strongly reminiscent of some of Moncrief's advice, as given above (page 178-9).

Another of Buchan's nose-bleed 'cures' is to immerse the genitals in cold water, a method which he claims, never fails! Again, one can only suppose that shock tactics sometimes succeed!

Rather surprisingly, having pointed out that internal medicines will not have time to work as a first-aid measure, Buchan then proceeds to recommend various internal medicines to prevent nose-bleeding. These include Glauber's salt and manna in barley water; salt and water; and spirit of vitriol and tincture of roses. (14).

Returning now to the treatment of wounds themselves, we have seen that some of the ingredients of the home remedies so far mentioned have soothing or styptic properties. However, it is not only the ingredients of the ointments used in treating wounds that are important. Equally, or even more, important, is the general management of the wound and of the patient. About this we know little, when it comes to considering first aid in eighteenth century Scotland, although Lady Stewart's comment (page 174) concerning 'tents' (i.e. inserted dressings) and plasters, and Moncrief's suggestion (page 176) for inserting cloth

into the wound, suggest that the orthodox medical practice, which tended to keep wounds open, was also practised on the domestic front. We shall expand on the point later when orthodox medical treatment for wounds is considered.

In the latter part of the eighteenth century, William Buchan's 'Domestic Medicine' achieved great popularity (15), and presumably his advice was followed in many households. As we have seen in so many aspects of medicine, Buchan has some sound common-sense advice on the subject. His opinion is clear:

"It is Nature alone that cures wounds. All the Art can do is to remove obstacles, and to put the parts in such a condition as is the most favourable to Nature's efforts." (16)

To this end, he recommends removal of foreign bodies and cleaning of the wound. Then, if the bleeding is profuse, it must be stopped with a tourniquet, or, where this is not practicable, by the application of styptics such as blue vitriol solution, the Styptic Water of the Dispensatories, or, if these are not available, strong spirits of wine. He mentions the use of Agaric of the oak, recommended by Tissot in 'Avis au Peuple', as an effective styptic which "ought to be kept by in every family, in case of accidents" (17). William Lewis, M.D., in his 'Materia Medica', recommends the same fungus, which he calls Agaricus Quercinus, to prevent haemorrhage after amputations (18).

Except to control heavy bleeding, Buchan suggests that tinctures and hot balsams are "improper". For slight wounds, sticking plaster alone is recommended;

"This keeps the sides of the wound together, and prevents the air

from hurting it, which is all that is necessary". However, "when a wound penetrates deep, it is not safe to keep its lips quite close: this keeps in the matter, and is apt to make the wound fester. In this case the best way is to fill the wound with soft lint, commonly called caddis. It however must not be stuffed in too hard, otherwise it will do hurt. The lint may be covered with a cloth dipped in oil, or spread with the common wax plaster; and the whole must be kept on by a proper bandage" (19).

As the wound begins to heal

"those who are fond of salves or ointments...dress it with the yellow basilicum; and if fungous, or what is called proud flesh, should rise in the wound, it may be checked, by mixing with the ointment a little burnt alum or red precipitate of mercury" (20).

The latter is still used in the treatment of foul ulcers (see Table I, page 193).

The treatment for an inflamed wound should be "a poultice of bread and milk, softened with a little sweet oil or fresh butter" and in cases of inflamed wounds, the patient's diet should be light, he should rest and take light purgatives and "ought above all things to abstain from venery" (21).

In the Appendix to his book, Buchan gives the recipes for preparing "A List of Simples and of such Medicinal Preparations as ought to be kept in Readiness for Private Practice". This includes a recipe for the 'Vulnerary Balsam', composed of benzoin, Balsam of Peru and hepatic Aloes, and is evidently yet another version of Wade's Balsam (see Page 173, 174). Buchan comments

"This, though a medicine of some value, does not deserve the extravagant encomiums which have been bestowed on it. It has been celebrated under the different names of The Commander's Balsam, Persian

Balsam, Balsam of Berne, Wade's Balsam, Friar's Balsam, Turlington's Drops, Jesuit's Drops etc." (22)

Buchan's recipe for Yellow Basilicon Ointment consists of yellow wax, white resin, frankincense and hog's lard; and, for Wax Plaster; yellow wax, white resin and mutton suet. The styptic water he recommends consists of blue vitriol, alum and oil of vitriol. Alum does, indeed, have a known haemostatic effect (see Table I, page 193).

These samples of domestic remedies give us some idea of the state of practical first aid for wounds in eighteenth century Scotland. Meanwhile, what was the state of official theory and practice of wound management? The picture here is somewhat confused, as indeed were the medical views of the time.

Let us begin by considering twentieth century instructions for wound treatment: -

"Unless there has been a delay of over eight hours from the time of injury, incisional wounds are treated by primary suture. The wound is cleansed, and obviously devitalised tissue excised both from the skin edges and deeper layers and haemostasis secured, following which it is carefully closed in layers.....at the conclusion a pressure dressing is applied;.....

If primary suture is not possible,....then after cleansing, excision of dead tissue, and haemostasis, the wound is packed open. Four to seven days later, if the wound is now clean, the skin edges are freshened and the wound is closed. This is known as delayed primary suture.....

If sepsis is present, wound closure must be deferred until this is under control. Then the granulation tissue which will have formed must be curetted away, dead tissue removed, and wound edges excised, being undercut if necessary, after which the wound is sutured if

this is possible without tension. This is secondary suture." (23)

During the eighteenth century, controversy surrounded almost every aspect of wound management, including the virtues of bleeding, of opening the wound, of cautery, of inserting ointments and dressings, of cutting away the edges of the wound. To appreciate the sources of this confusion, it is helpful to go back in time beyond the eighteenth century.

Sir Zachary Cope, in an interesting account of the history of wound treatment (24), points out that the treatment recommended by Hippocrates persisted for over two thousand years; namely bleeding, purgation, light diet, and usually the application of clean linen with wine or vinegar over it. Like many medical men after him, Hippocrates regarded suppuration as the normal accompaniment of wound healing. For the inflammation accompanying this, Hippocrates recommended a large array of topical applications, including "the boiled leaves of many plants, often mixed with linseed: alum, vinegar, turpentine, myrrh and bile". He suggested sea water for washing wounds (25).

Celsus (first century A.D.) employed vinegar as a styptic, and sutures, with cautery if necessary. His words regarding ointments are curiously like those of Buchan

"A wound can be treated without far-fetched medicaments", but if wished, an ointment, 'barbarum', composed of alum, verdigris, litharge, dried pitch, dried pine resin, oil and vinegar, could be employed (26).

Sir Zachary points out how the treatment of wounds thereafter became increasingly irrational, with topical applications becoming more

complicated and their ingredients more far-fetched. Despite some enlightened views, such as those of Hugh of Lucca (thirteenth century A.D.) and his followers, who recognised that suppuration was unnecessary and harmful, the older attitudes continued to hold sway.

Wars throughout the ages have provided physicians with serious wounds to treat, and the introduction of gunpowder in the fourteenth century gave rise to a new type of wound, generally thought to be poisoned (27). A thorough survey of military medicine is beyond the scope of this chapter, but no consideration of wound treatment would be complete without some reference to it.

Paré (1510-1590), a famous French military surgeon, discovered accidentally that those of his patients whose wounds were treated with a dressing of egg-yolk, oil of roses and Turpentine, fared better than those who had had the then-accepted treatment for gunshot wounds of hot oil of elders mixed with treacle, poured into the wound (28). However, his observation was largely ignored by others.

In the eighteenth century, John Hunter (1728-1793) was, in Sir Zachary Cope's estimation, the "man who thought and taught about wounds most wisely" (29). He realised that a simple wound could heal by first intention, and recommended simple sticking plaster rather than an interrupted suture, which he recognised could cause suppuration:

"Perhaps the art employed by the surgeon himself may assist in changing the original state of the wound, as the passing of needles and ligatures must always produce suppuration through the whole passage" (30)

Hunter was critical of many of the topical applications used for wounds

"respecting many of which I have my doubts" (31). Despite Hunter's views, suppuration was still generally regarded as an inevitable or even desirable accompaniment to healing. The term 'laudable pus' was frequently used by eighteenth century medical writers (32).

The Scottish military surgeon John Pringle (1707-1782) did much to improve conditions for the wounded. It was said of him that "few physicians have rendered more definite services to humanity" (33). Among his publications were a series of papers presented to the Royal Society (1750-52) entitled "Experiments upon Septic and Antiseptic Substances" (34). He is generally regarded as the originator of the word 'antiseptic'. However, as pointed out by Drummond, the word appears in an anonymous surgeon-apothecary's log-book, belonging to the 1730's, at present in the National Library of Scotland (35).

It was left to Pasteur in the nineteenth century to identify the causes of suppuration, and to Lister to apply this knowledge.

Some idea of the state of orthodox medical practice respecting wound treatment in eighteenth century Scotland can be gained from a study of the Edinburgh Pharmacopoeia. The information that follows is taken from the Fourth Edition, "faithfully translated" by Lewis (36):

The Aqua Styptica of the Pharmacopoeia is composed of blue vitriol, roch alum, water and oil of vitriol. The Pulvis Stypticus consists of roch alum and dragon's blood, the latter a constituent used by Guy de Chauliac in the fourteenth century (37) and by Albucasis in the eleventh.

Recipes are given in the Pharmacopoeia for vulnerary balsam (already described above, see page 174), and for Unguentum Basilicon= and various ointments whose specific uses are not apparent. There is

also a recipe for "cataplasma suppurans", which consists of mallow roots, fat figs, raw onions, Galbanum in egg yolk, basilicon ointment, oil of chamomile and linseed-meal. The "septic stone or potential cautery" was composed of quicklime and potash. (38)

In an Appendix, Lewis gives in the "Dispensatory for the Use of the Poor", a recipe for a 'Vulnerary Decoction', consisting of ground ivy and leaves of plantain boiled in sugar and water, and one for a 'warm Plaster'; also one for a "suppurating" plaster, composed of Gum Plaster and Burgundy pitch. To modern ears it sounds strange that the official pharmacopoeia includes prescriptions to encourage suppuration, but as has already been pointed out, suppuration was generally regarded as a normal accompaniment to healing.

It is of course difficult to know to what extent the prescriptions of the Pharmacopoeia were used in practice. Le Fanu suggests that, in England, the Pharmacopoeia was not always followed:

"There was no ethical objection to secret medicines; a personal remedy was often part of the prestige of the successful physician .....There is little evidence to show how far the official Pharmacopoeia was followed" (39)

Probably the same situation prevailed in Scotland with regard to "extemporaneous" prescriptions.

In an attempt to consider the effectiveness of the various methods of wound treatment that have been described in this chapter, all the ingredients have been listed and, where possible, identified in modern terms, in the Table on page 193. It must be emphasised that it is almost impossible to assess the effectiveness of polypharmaceutical preparations (see page 318). Bearing this in mind, it will, however,

be seen that a high proportion of the ingredients used do have properties which would help to prevent bleeding or promote healing. The Table shows that a number of the herbal components have antiseptic properties and some in addition have bacteriostatic or even antibiotic qualities. As such, they would be valuable in the treatment of clean wounds.

However, a clean wound was an unusual phenomenon in the eighteenth century. Suppuration was regarded as a normal accompaniment of healing, at least by some members of the medical profession. The writer of a modern textbook of microbiology tells us that, as late as the mid-nineteenth century

"virtually all wounds suppurated and the mortality following surgery was fearful. Failure of wounds to produce 'laudable pus' was in fact considered a bad sign - quite rightly, as we can see today, for all wounds were infected and lack of suppuration frequently meant absence of resistance to infection on the part of the patient" (40)

In the case of infected wounds, use even of antiseptics would be of little value, and could even be deleterious.

In our own century, Sir Almoth Wright and Sir Alexander Fleming demonstrated that even modern antiseptics "were more likely to do harm than good when applied to wounds in which infection had become established" (41). Salt solutions, which draw serum out of the wounded tissue, are more effective in this case; and thus we come full circle back to the ancients who prescribed salt water for wounds, and to John Moncrief and his apparently bizarre remedy of salt and cobwebs (see page 176). The cobwebs contain a significant amount of antibiotic, so this remedy may have been a good one after all! Plus ça change, plus c'est la même chose.

In conclusion, it is fair to state that some of the simpler home treatments for wounds in eighteenth century Scotland would have done good rather than harm, especially in the case of small, clean wounds. Where wounds were large, and infected, probably both orthodox and domestic remedies did more harm than good.

REFERENCES

- (1) The Pharmacopoeia of the Royal College of Physicians at Edinburgh. Faithfully translated from the Fourth Edition....By W.Lewis, M.D., F.R.S. London, John Nourse, 1748. Page 203.
- (2) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh SRO GD 18/2130.
- (3) Broughton Cally Papers, Scottish Records Office, Edinburgh SRO GD 10/911, No. 6
- (4) Ibid.
- (5) Op.cit. (1), page 201.
- (6) Ibid., page 203.
- (7) Loc.cit. (3), No. 5.
- (8) Ibid., No. 30.
- (9) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh SRO GD 18/2142.
- (10) Logan Home Papers, Scottish Records Office, Edinburgh SRO GD 1/384/26.
- (11) Ibid.
- (12) Pennant, T. A Tour In Scotland. Third edition, Warrington, 1774 Appendix II, by Rev. Mr Shaw.
- (13) The Poor Man's Physician or the Receipts of the Famous John Moncrief of Tippermalloch.....Third edition, Edinburgh, 1731
- (14) William Buchan Domestic Medicine. Glasgow, 1806 edition, pages 297-299. (Date of first edition, 1783)
- (15) Lawrence, C.J. William Buchan: Medicine Laid Open. Med.Hist. 19, 1975, pages 20-35.
- (16) Op.cit. (14), pages 496-7.
- (17) Ibid., page 498

- (18) Lewis, William An Experimental History of the Materia Medica. London, 1761. Entry No. 11.
- (19) Op.cit. (14), page 498.
- (20) Ibid., page 499.
- (21) Ibid., page 500.
- (22) Ibid., page 566.
- (23) Aston, J.N. A Short Textbook of Orthopaedics and Traumatology. Second edition. Hodder & Stoughton, London, 1976. Page 6.
- (24) Sir Zachary Cope The Treatment of Wounds through the Ages. Med. Hist. 2, 1958, pages 163-174.
- (25) Ibid.
- (26) Ibid.
- (27) Ibid.
- (28) Owen H. Wangenstein et al Wound management of Ambroise Paré and Dominique Larrey, Great French Military Surgeons of the Sixteenth and Nineteenth Centuries. BullHist.Med. 46, 1972, pages 207-234.
- (29) Op.cit. (24)
- (30) Hunter, J. Works, ed. J.F. Palmer 1837, III  
Quoted by Cope, op.cit. (24).
- (31) Ibid.
- (32) Loc.cit. (28)
- (33) Douglas Guthrie A History Of Medicine. Nelson, London, 1948  
Page 233.
- (34) Ibid.
- (35) National Library of Scotland, Edinburgh. MS 3774. Note on  
Cover by C.E. Drummond.
- (36) Op.cit. (1)
- (37) Loc.cit. (24)

- (38) Op.cit. (1), page 262.
- (39) William R. Le Fanu The Lost Half-Century in English Medicine, 1700-1750. Bull.Hist.Med. 46, 1972, pages 319-348.
- (40) Turk, D.C. & J.A. Porter A Short Textbook of Medical Microbiology. Third edition. English Universities Press, London, 1975. Page 8.
- (41) Loc.cit. (24), page 171.

List of Ingredients of Wound Remedies with their Modern Names and Indication of any known relevant Pharmacological Properties

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Agrimony	<u>Agrimonia eupatoria</u> L.	Vulnerary (Sch)
Almonds, sweet	<u>Prunus communis</u> Arcang var. <u>dulcis</u> , Schneid	
Aloe Succotrin = Hepatic Aloes	<u>Aloe perryi</u> Baker, and other spp	
Alum (Potassium aluminium sulphate)		Haemostatic (Mart)
Anemone	probably <u>Anemone hepatica</u> L.	
Angelica	<u>Angelica archangelica</u> L.	
Ashes of beech-fire Ashes of Linen	both contain potash, q.v.	
Avens	<u>Geum rivale</u> L. or <u>Geum urbanum</u> L.	
Balsam of Peru	<u>Myroxylon pereirae</u> , Klotsch	Mild antiseptic (Mart 244)
Benjamin	<u>Styrax tonkinensis</u> Craib	Vulnerary, antiseptic (P)
Benzoin	<u>Styrax benzoin</u> , Dry <u>S. paralleloneurum</u> , Perkins and other spp	
Betony	<u>Stachys officinalis</u> (L) Trevisan	Effective in healing infected wounds (Sch)
Bole Armoniac	Impure iron oxide	Easily assimilated (Mart)
Bread and Milk, Woman's Milk		
Burdock	<u>Arctium lappa</u> L.	Mildly antibiotic (Flück)
Burgundy Pitch	from <u>Picea abies</u>	Mild counter-irritant (Mart)
Burnt Alum		Powerful astringent, used in treatment of ulcers (Mart)
Calamis	<u>Acorus calamus</u> L.	Sedative (Flück)
Chamomile	<u>Anthemis nobilis</u> L.	Effective in treating wounds (Sch): disinfectant (Mart)
Clown's All Heal	<u>Stachys palustris</u> L.	Arrests bleeding, aids healing (P)
Cobwebs and salt		Cobwebs have traces of antibiotic and are also coagulant
Dragon's Blood	<u>Daemonorops propinquus</u> Becc and other spp	

Egg-white		Useful in burns (Mart)
Egg yolk		
Fat Fig	<u>Ficus carica</u> L.	Emollient (P)
Frankincense, see	Olibanum	
Galbanum	<u>Ferula galbaniflua</u> Boiss and Buhse, and other spp	
Glauber's Salt	Sodium sulphate	Useful local application for infected wounds (Mart)
Ground Ivy	<u>Glechoma hederacea</u> L.	Used in poultices (P)
Honey		
Horse-tail	<u>Equisetum</u> sp	
Hyssop	<u>Hyssopus officinalis</u> L.	Vulnerary (Sch)
Ivy	<u>Hedera helix</u> L.	
Knot Grass	<u>Polygonum aviculare</u> L.	
Linseed meal	from seeds of <u>Linum</u> <u>usitatissimum</u> L.	Used in poultices (Mart)
Litharge	lead oxide	Astringent, soothing, a component of lead plaster (Mart)
Mallows	probably <u>Althaea officinalis</u> L.	Emollient, soothing (Sch)
Marigold	<u>Calendula officinalis</u> L.	Vulnerary, encourages rapid healing (Sch)
Marshmallow, see	Mallows	
Mastic	<u>Pistacia lentiscus</u> L.	
Mercury, red precipitate of		Still used to treat foul ulcers in 1950's (Mart)
Mints	<u>Mentha</u> sp	
Moss from Ash trees ? = lichen	<u>Usnea barbata</u> Hoffm	Antibiotic (Sch)
Myrrh	<u>Commiphora molmol</u> Engl and other spp	Healing, antiseptic (P)
Niplewort	<u>Lapsana communis</u> L.	
Nettle	<u>Urtica dioica</u> L.	
Olibanum = Frankincense	from <u>Boswellia</u> spp	
Onion	<u>Allium cepa</u> L.	
Oyl olive	<u>Olea europaea</u> L.	Emollient (P): but facilitates bacterial growth (Sch)

Pitch, dried		
Plantain, broad leaved	<u>Plantago media</u> L.	Mucilaginous, soothing
Plantain, long leaved	<u>Plantago lanceolata</u> L.	(Flück)
Potash	Potassium hydroxide	Used in soap to clean skin pre-operatively (Mart)
Quicklime	Calcium oxide	Effective cauterising agent
Roses, tincture of	From <u>Rosa</u> sp	
Rosin	from <u>Pinus palustris</u> Mill and other spp	Rubefacient (P)
Sage	<u>Salvia officinalis</u> L.	
St. James' Wort	? <u>Capsella bursa-pastoris</u> L.	Styptic (Sch)
St. John's Wort	<u>Hypericum perforatum</u> L.	Healing (P)
Shepherd's Purse	<u>Capsella bursa-pastoris</u> L.	Styptic (Sch)
Smallage	<u>Apium graveolens</u> L.	
Smithy water		
Spirits of wine		
Storax, Styrax, Balsam Styracis	<u>Liquidambar orientalis</u> , Mill	Antiseptic (Mart)
Turpentine	from <u>Pinus</u> spp	Rubefacient (Mart): bacteriostatic (Wang)
Vinegar, wine vinegar		Astringent
Vitriol, blue	Copper sulphate	Astringent, caustic, fungicidal (Mart)
Vitriol, oil of Vitriol, white	Sulphuric acid	Caustic

#### Key to symbols

- Sch = Schanenberg, P. and F. Paris. Guide to Medicinal Plants. Lutterworth Press, London, 1977
- Mart = The Extra Pharmacopoeia (Martindale) 23rd Edition, 2 vols. London, Pharmaceutical Press, 1952
- P = Potter's New Cyclopoedia of Botanical Drugs and Preparations by R.C. Wren, F.L.S. 8th edition, Health Science Press, Devon, 1975
- Flück = Flück, Prof. Hans Medicinal Plants, 4th edition, 1971  
Translated by Prof. J.M. Rowson, Foulsham & Co., Slough, 1976
- Wang = Owen H. Wangensteen et al. Wound Management of Ambroise Paré and Dominique Larrey, Great French Military Surgeons of the Sixteenth and Nineteenth Centuries. Bull.Hist.Med. 46, 1972, pp. 207-234.

CHAPTER VIII

Domestic Remedies for Stomach Pain and Colic in Eighteenth-Century  
Scotland

Mims Magazine, the prescriber's journal used by General Practitioners in Britain today, lists no fewer than thirty two antacids and forty nine gastrointestinal sedatives, antacid/sedatives and ulcer-healing drugs (1). Indigestion is of course by no means a new complaint; it is doubtless as old as man himself.

Medical recipes for heartburn, dyspepsia, indigestion, stomach pain and colic abound in printed medical works. However, this is still one of the complaints for which home remedies are often used, since in many instances the symptoms are not severe enough to need medical attention.

A great variety of home remedies seem to have been used in eighteenth-century Scotland, and unlike the situation as regards hydrophobia (Chapter VI) or smallpox (Chapter IV), many of the preparations probably really helped, and many would have been pleasant to take. The psychological aspect of medicine-taking should not be overlooked. A pleasant-tasting, pleasant-smelling herbal remedy for stomach ache probably soothes a patient more than a foul-tasting concoction, and brings relaxation and therefore helps digestion. The eighteenth-century adjective "stomachic", still used by herbalists to-day, is a vivid and probably meaningful one.

There are several remedies for stomach pain and colic among Lady Stewart's notes, written around 1730 (see note on Lady Stewart, page 32 ). There is a recipe for poppy cordial "for any disorder of the stomach", consisting of corn poppies steeped in brandy, with added mace, cloves, nutmeg, balm, angelica, cardus and sugar (2).

Another recipe in the same collection, for a "stomachick Julep", includes mint, balm, black cherry, cinnamon water, liquid laudanum and syrup of bitter orange skins (3). A third, entitled Houghton's Drops, consists of roots of gentian and bitter orange rind infused in brandy, with cochineal and saffron added (4).

For colic, Lady Stewart recommends two types of balsam. The first bears a name still familiar today, viz Fryer's Balsam, composed of Balsam Peru, Storax, Benjamin, Myrrh, flowers of St John's Wort and Angelica root (5). Its primary use is external, as an ointment for wounds and bruises (see page 174), but internally

"it cures Inward Bleedings, and is a Specifick for the Colick, dose from thirty Drops, to a teaspoonfull, Infused in any Liquid, or Dropped on a Lump of Sugar" (6).

General Wade's Balsam is likewise primarily a vulnerary (see page 173). Lady Stewart's version of it contains Balsam Peru, Storax Calamis, Benjamine, Sweet Almonds, Aloes Sucatrina, Myrrh, Frankincense, Angelica roots, St John's Wort flowers:

"For the Colick, put four or five drops in a glass of water and shake it together and drink it" (7).

The Harvie family papers (privately owned), contain the following recipe, dated 7th January 1767, for "Stomakic Black Balls":

"Take Bees-wax 1lb, Soft Soap 1lb, Ivory Black 1¼ ounces, candid sugar well founded ¼ ounces, white of three eggs well beat and ½ gill rum. Sheer down the Bees-wax and melt it on a Slow Fire then add about half of the Soap continuing to stir it carefully. When it is dissolved mix all with the Ivory Black and Candid

Sugar and Rum - The Candid Sugar may be dissolved with a little water - when it is well boiled and beginning to cool again take it out and work it well upon a smooth board with the Remainder of the Soap and White of the Eggs, or mix the Egg in the pot when half cooled - after it is well wrought, make it into Balls for Using.

Got from T. Hasling, an Old Soldier." (8)

The ingredients of these remedies, as well as of those described later in the chapter, are listed in the Table on page 217, where they are identified, as far as possible, in modern terms. Modern pharmacological data has been added where possible. The table shows that many of the herbs recommended are "carminative", i.e. they expel wind. Examples are mint, cloves, balm, angelica, coriander, fennel, saffron. Others, still described today as "bitters", stimulate the secretion of digestive juices and so aid digestion. Bitter orange, cardus, gentian are examples of "bitters". A third category of herbs to be found in eighteenth century digestive remedies are sedative (e.g. corn poppy). As further remedies are considered, it will be seen that a surprising number of their ingredients fall into one of these three categories, and as such would have been of real therapeutic value.

A late eighteenth-century remedy among the Logan Home papers (9), gives as a cure for stomach pain, ginger cakes containing cinnamon. Other eighteenth-century home remedies among privately owned collections include the following. The Leven Melville papers (10) include a recipe dated April, 1702, and addressed to the Earl of Melville. It recommends a "dyet drink", with gentian, agrimony, absinthe, etc. A later recipe

for "a great cordial and Restorative given to ....Walpole" appears among the Clerk of Penicuik papers:

"I had it from Mr Lastels

Take Cloves, Mace, Nutmeg, Cubobs, Cardamums, Cochineal, Galangall, Saffron,....bruise them then infuse them for fourteen days in a Gallon of English measure, of Malaga sack, afterwards strain it, thereto add one pint of Cinnamon water, drink dayly" (11)

This cordial sounds cheering, as well as carminative!

As we shall see later in this chapter, many of the herbs in these home remedies were also used by orthodox medical men. William Lewis, M.D., in his 'Materia Medica' of 1761 (12), lists Absinthe, or wormwood, as "stomachic", while the anonymous author of 'A Compendious Body of Physick', 1747, (13), recommends ginger as "good in colicky and sour humours" and cloves as "good against the wind in the stomach". Galangal receives a mention in an anonymous manuscript pharmacopoeia among the Hamilton-Dalrymple family papers (14). We are told that Galangal, which comes from China, is used to expel wind, and Gentiana is described by the same author as "stomachick".

Some of the privately owned recipes for stomach pain and colic were written by physicians, and are included later in this chapter when orthodox treatment for these complaints is discussed. The distinction between home and orthodox remedies is, however, clearly an arbitrary one, especially as many of the same herbs appear in both groups of remedies.

John Moncrief, in his book 'The Poor Man's Physician', to which frequent reference has been made in earlier chapters, gives numerous

remedies for stomach pain and colic. Those quoted here are taken from the third edition of his book (1731). The remedies are to be found scattered throughout the book (15), and for convenience have here been grouped under four headings.

## I Stomach Pain

### A. External Applications

These include hot bread, a cataplasm of bread, egg yolk and saffron with vinegar, "Or, which is best, put the patient in a warm Bath; for that is most proper". He also recommends a foment on the stomach of Decoction of Wormwood, Mint or Organy or Calamint or Ginger, or Oyl of Laurel, Mastic, Nutmegs and Roses.

### B. Internal Remedies

Bread dipped in wine; oyl of sweet Almonds or Sesaminum; Woman's Milk; Sow-thistle Juice drunk.  
Inflammation of the Stomach is "tempered with the Juice of Limons,.. Citrons...small Sorrel".  
Against "wind in the stomach", Moncrief recommends lozenges made from sugar, Anise, coriander and Rose-water.

## II Colic

### A. External Applications

A Cataplasm of barley, lintseed flour, oyl of camomile; dill, sweet Almonds, lilies and oyl of camomile; or fresh butter  
Other external applications for colic include warm Bannocks, pellitory and butter, cupping glasses applied to the navel, cow's dung, and a cold stone.

B. Internal Remedies for Colic

Oyl, water, papper; Anise-seed powdered in wine; cold water; whey and 'sharp waters'; oatmeal, juice of Celidon, Garlick, Pepper, Cloves, Cinnamon, white of Egg; Sack, aquavitae and sugar; Hoofs, ox-dung, wolf's dung or powdered wolf's guts! Lapwing ashes in white wine; Laudanum opiate; Pilulae catholicae; ashes of burnt wine cork.

It is doubtful whether any of the external applications would be of any value in stomach pain or colic, except in so far as warmth is helpful and soothing. The actual constituents are probably largely irrelevant, though one might prefer a cataplasm of oil of roses to one of cow's dung!

Among the internal remedies, some were of undoubted therapeutic value, as reference to Table I, page 217, will show.

Jane Sharp's book on midwifery (16), published in 1724, contains advice on the treatment of infant colic. Though strictly an English rather than a Scottish publication, the following extract will be quoted both for the vividness of its prose and the interesting overlap in the herbs recommended by Sharp and by Moncrief:

"If the child be griped and pained in the Belly, you shall know it by the great Unquietness and Crying, and turning it self from side to side; it is oft with a scowering, and from bad milk, that breeds sharp windy Humours; it gets to the guts and gnaws them;.... Give the Child some Oil of sweet Almonds, Suggar-Candy, and a Scruple of Anniseeds, and purge it with Honey of Roses, which is good also when the Body is Swoln with Wind, or too much Milk not digested; and use a Decoction of Cardiaca, Cammome Flowers, and Cummin-seed; or boil the Top of Dwarf Elder in White-wine, and bathe the Parts that are swol'n with it."

Having looked at a selection of home remedies, what meanwhile did the orthodox Scottish medical man of the eighteenth century prescribe for stomach pain and colic?

Among the Pitcairne Papers in Edinburgh Univeristy Library are some notes by the famous physician Dr Archibald Pitcairne (1652-1713), dated 1704, and concerning the case of a merchant in Kirkaldy. The notes are difficult to read, but it seems that

"Robert ?Brusse....is troubled with a strangulation sometimes in his throat, and is eased by resting, and a lump in his belly sometimes like a colic and is eased by farting, or by a pipe of tobacco if it .....(produces) a stool." (17)

Among the ingredients prescribed by Pitcairne are myrrh, valerian and castor.

This reference to "a pipe of tobacco" is interesting. In the seventeenth and eighteenth centuries, tobacco fumes blown by a pipe or bellows into the intestines were used as a method of relieving colic and constipation. John Pechey, M.D., in his 'Compleat Herbal' of 1694 refers to this practice (18) and so, much later, does William Buchan, M.D., in his 'Domestic Medicine':

"As the smoke of tobacco thrown into the bowels will often procure a stool when all other means have failed, an apparatus for this purpose ought to be kept by every surgeon." (19).

However, the practice seems to have died out at the beginning of the nineteenth century. An anonymous book on Medical Botany published in 1819 mentions the use of tobacco as an enema, but adds that all uses of tobacco are dangerous (20).

Various mid-eighteenth century medical prescriptions for stomach pain and colic appear among the private collections of remedies investigated. Lady Stewart's collection, for example, contains a recipe for a "Tincture for the Collick from Hans Sloan" (i.e. the well-known London physician, Sir Hans Sloane, 1668-1753). This recipe was written around 1730. It consists of Guaiacum chips, Elicampain roots, Liquirish Sherd, Corander steeped in white wine vinegar, bruised Sena of Alexandria, Sherd Rhubarb, Sweet Fennel seed and stoned raisins, all to be infused in Small Aniseed Water (21).

The use of 'Liquirish Sherd' (i.e. grated liquorice root) in this remedy is of particular interest. The contemporary manuscript pharmacopoeia among the Hamilton-Dalrymple papers, refers to liquorice or Glyceriza as

" emolient, sweetning and Antacid.....It is generally administred in Ptrysans and is laxative to Infants.....it is found to be an excellent medicine in Cardialgias and Hartburns." (22)

The 'Medical Botany' of 1819 dismisses the use of liquorice root:

"Its medicinal virtues are but limited" (23)

However, liquorice has survived as an indigestion remedy, and its use has been fully vindicated by modern biochemistry. Carbenoxylone, currently used in the treatment of peptic ulcers, is derived from liquorice (24). This is one striking example of a modern drug that might well have been lost to the world during the rather drastic reform of the *Materia Medica* that took place early in the nineteenth century.

Among the Clerk of Penicuik family papers, there are several medical prescriptions for digestive troubles. All are of interest in

their different ways and will be given here in full.

"Prescription for an Ilyack passion or excessive constipation (c.1740)

Let the patient be set barefooted on a stone floor and throw cold water on his legs.

This prescription by Dr Clerk and Dr Stephensone saved one Mr Crawford's life in 1739 when he was given over by all his physicians and had tried all other remedies for many days. It wrought in an instant by a copious stool. It was first practised with success on a Duke of Terrasa. The sudden cold gives the Intestines a pressure and at the same time casts within them a pressure by the force of the muscles. This recipe was accidentally found on a printed paper in which some Tobacco was kept. part of an old book." (24)

A truly simple remedy!

"Doctor Irwins excellent purging elixir"

This prescription is written in Latin and contains about fifty different herbs, including the following:

roots of burdock, bugloss, loveage, imperatoria, Scorzonera;  
stems of acetos or surocks, madder;  
bark and roots of sasafra, capers, tamarisk;  
the herbs chamaedrys or germander, chamaepitys or herb Ivy or ground  
Pine, fumitory, wormwoode;  
the tops and flowers of rosemarie, agrimonie, centaurie, marjoram,  
melissa or baume;  
the flowers of genista or broom and sambucus or elder;  
the seeds of aniseed, coriander, carvum, persell;  
the berries of juniper, laurell

Other additions include ginger, scurvy grass, water cress and brooklime.

There is an interesting note added by Sir John Clerk to this recipe, and dated 1744:

"N.B. 1744. Nowadays this recipe wou'd be laught at for the multitude of the Ingredients" (26)

Evidently the prevalent medical trend towards simplification of remedies was already familiar at least to some laymen. However, many of the prescriptions of the Pharmacopœias belonging to later dates than this, still maintained items such as Venice and Edinburgh Treacle which make the above preparation look relatively simple! The Edinburgh Treacle of the Fourth Edition of the Edinburgh Pharmacopœia contained approximately sixty ingredients, several of them themselves compound (27).

Also among the Clerk of Penicuik papers, there is this contrastingly simple remedy for colic:

"Prescription for the poor from Dr Pringle, Physitian to the Duke of Cumberland. 1749.

As poor people are much troubled with windy gripes and collecks, pains in the Stomach, in the Bowels.....Let them use this Cheap Remedy \*

An ounce of Woodashes such as the Baxters can furnish from the branches of Ash or Oak. Half an Ounce of the Tops of common Wormwood dried, two chopins of spring water. Infuse the above ingredients then after a day or two drain off the water and add to it half a Mutchkin of Aquavitae or a little more. Let the Patient take a glass of this twice a day about a Gill at a time and in (?) cases let the patient swallow a clove of Garlick once a day and triple the Woodashes. Continue the use of this medicine for three or four weeks." (29)

As well as being simple and cheap, this remedy was probably also effective,

\* Colic is listed as one of the common maladies of Tweeddale by Alexander Pennecuik, M.D., in his 'Description of Tweeddale', 1715 (28).

since wood ash is rich in alkaline salts such as potash, which would help combat acidity in much the same way as modern patent indigestion mixtures.

The Edinburgh Pharmacopoeia gives various prescriptions for "stomachic" preparations. Those given here are taken from the Fourth Edition, translated by William Lewis (30).

The "Stomachic Tincture" consists of roots of Calamus aromaticus, Galangal, Gentian, Zedoary, orange peel, Peruvian Bark, tops of Wormwood, Lesser Centaury, camomile flowers, seeds of Carduus benedictus, filings of iron, and French white wine. Lewis tells us

"This is a prescription of the late famous Dr Pitcairn. Though none of the materials are improper, yet the exuberancy of the composition might have been reduced without any loss to its virtues. The galangal, zedoary, wormwood and carduus seeds, may very well have been spared." (31)

The Stomachic pills of the Pharmacopœia are composed of: succotrine Aloes, rhubarb, Gum Ammoniacum, Extract of Gentian, Myrrh, Vitriolated Tartar, Distilled oil of Mint, Syrup of Senna and Rhubarb. The simplified version of these pills for the Hospital Dispensatory omits the rhubarb, Gentian and Senna.

The orthodox medical men also recommended external applications. The 'Emplastrum Stomachicum' of the Pharmacopoeia was made from Yellow Wax, Tamahacca, Venice Treacle, bayberries, cubebs, oil of mace and oil of mint. Venice Treacle itself has over sixty ingredients, so it comes as no surprise to learn from Lewis that the version for the Hospital Dispensatory omits the Venice Treacle. It consists of Tama-

hacca, palm oil, cloves, oil of mace and oil of mint.

Lewis has some comments to make on a few individual ingredients. He tells us, for instance, that root of *Calamus aromaticus* (a component of Lady Stewart's recipe too, see page 198) or *Acorus verus* is looked upon as "a warm stomachic". Of nutmeg, or *Nux moschata*, Lewis tells us:

"Nutmegs have long been used as a medicine, and are deservedly looked upon as a warm and agreeable aromatic.....Geoffroy relates from Bontius, that too liberal a use of preserved nutmegs is apt to produce lethargic disorders, hurts the stomach and disposes to inflammations" (32)

Nutmeg in large doses is today recognised as narcotic, and can cause convulsions (33).

Of tartar, from grapes, Lewis has this to say:

"Pure tartar, taken in a dose not exceeding an ounce, in fine powder, proves a gentle, though effective purgative in many cases. Angelus Salus relates, that he was cured of an habitual colic, by purging himself, a few times, with two drams of this salt, although he had tried many other medicines to no purpose." (34).

It is, of course, difficult to establish how far the prescriptions of the *Pharmacopoeia* were really used in practice, and to what extent they were varied or replaced by extemporary prescriptions. Unfortunately eighteenth century case notes are few.

In some anonymous medical notes among the Hamilton Dalrymple family papers, dated circa 1750, we read of *Assa foetida* given "to Mrs More for a histerick intermitting pain in the stomach" and to "Mrs Gordon for Ditto with vomiting", also to "Mrs Cramond for cholick pains with success" (35). It is perhaps surprising that *Assa foetida*

does not appear among the 'stomachic' components of the Pharmacopœia. However, it was a regular part of the Materia Medica, as indicated by its inclusion in "Medical Botany in the Materia Medica of the London, Edinburgh and Dublin Pharmacopœias", London, 1819. In this book. it is recommended for colic and dyspepsia (36).

William Buchan, M.D., in his 'Domestic Medicine' (1769), as usual recommends gentle measures for stomach and colicky pain. He suggests as beneficial measures gentle exercise, bladders of warm water applied, drinking plenty of "diluting mucilaginous liquors", and emollient clysters (i.e. suppositories) to keep the body open. Warm cordials of brandy and other spirits may help in stomach pain, also an infusion of "camomile flowers, or some other stomachic bitter". He makes the following comment on purgatives:

"Persons afflicted with flatulency are generally unhappy unless they be taking some purgative medicines; these, though they may give immediate ease, tend to weaken and relax the stomach and bowels, and consequently increase the disorder. Their best method is to mix purgatives and stomachics together. Equal parts of Peruvian bark and rhubarb may be infused in brandy or wine, and taken in such quantity as to keep the body gently open." (37).

Peppermint-water is recommended by Buchan for flatulency. Peppermint, still used today in indigestion mixtures, has been used since its discovery in the seventeenth century (it is a natural hybrid between two native British species of mint). In 1753, the Edinburgh Evening Courant published the following advertisement for Peppermint-water

"Distill'd as they do in London (neat and good) to be had at the Shop of Archibald Malcolme Surgeon Apothecary in DALKEITH: The Price is 1s per Bottle" (38).

It would seem that all eighteenth-century remedies for stomach pain and colic were purely empirical, whether one considers the 'folk' remedies or the orthodox ones. This is hardly surprising when one considers that the theory of the digestive process was still in its infancy.

During the seventeenth century, the views of the ancients such as Galen, that heat was the main agent of digestion, were being called into question. Van Helmont, for example, recognised, even though incompletely, the role of acid in digestion (39), a theory which derived at least in part from the thinking of Paracelsus (40).

A criticism which Van Helmont levelled at the digestive theory of the ancients was that "it has brought no light into the art of healing" (41). The gulf between theory and practice of medicine is an intrinsic difficulty in all medical research, and throughout the eighteenth century in Scotland it seems that theory and therapy failed to march hand in hand. Indeed, this difficulty still exists, since the clinician cannot wait for research results before treating his patients. Lester King refers thus to the gulf between medical theory and practice:

"Perhaps there was a dim recognition by the beginning of the eighteenth century that theories and explanation were little more than a game, not very important when it comes to treating patients." (42).

The disparity between theory and practice is noted by Leibowitz in an article in which he describes the treatment of a sixteenth century patient suffering from peptic ulcer. Although "the conception of peptic ulcer as a well-defined and common disease was acknowledged only towards

the end of the nineteenth century", the regime by which Amatus Lusitanus cured his patient in 1556 was remarkably like today's. The treatment was a light, non-fatty diet, massage, heat, rest and gentle exercise. (43).

Early in the eighteenth century the role of heat in digestion was dismissed, by the so-called iatromechanical school. Pitcairn, for example, subscribed to the theory that agitation alone accounted for breakdown of food into 'chyle' that could be absorbed: he argued that if acid were present it would digest the stomach as well as the food (44).

The theory of attrition was gradually rejected, and mechanical breakdown of food relegated to a secondary role, for example by Réamur (45). During the remainder of the eighteenth century and into the beginning of the nineteenth century, confused argument continued concerning the process of "fermentation" and the role of acid in digestion. Several Edinburgh medical students made this the subject of their inaugural dissertations, viz. Bland (1763), Rush (1768) and Stevens (1777).

Foster, in his 'Lectures on the History of Physiology' (46), tells us that by the end of the eighteenth century it was thought that

"digestion was in the main a process....begun and chiefly carried out in the stomach though assisted by minor subsequent changes taking place along the intestines....It was left for the nineteenth century ....to show that what took place in the stomach was...only the first of a series of profound changes taking place along nearly the whole length of the alimentary canal."

Returning now to the practical issues of stomach pain and colic, this brief survey is concluded by tabulating all the ingredients of the

remedies described, and where possible these are identified in modern terms. The table (page 217 ) also gives some indication of any known relevant pharmacological activity.

Examination of the table shows that a very high proportion of the herbs listed would be of real therapeutic value as either analgesics, sedatives, 'bitters' aiding digestion, or carminatives which would help flatulence. Another striking feature of this list is the universality of some of the herbs included. Thus Margery Rowe (47) records that in eighteenth century Russian folk medicine, mint and fennel were used for flatulence. A modern book of Medicinal Plants (48) gives two recipes for a 'bitter tisane' to aid digestion. The herbs comprising these are centaury, Angelica, yarrow, marjoram, wormwood, coriander, liquorice and sage - almost all of which appear in the eighteenth century list.

The deliberate development of antacids had to wait until the process of digestion was more fully understood in the nineteenth century, but given the lack of knowledge at the time, the eighteenth-century empirical remedies for stomach pain and colic were surprisingly sensible and must in some cases have been effective.

REFERENCES

- (1) Mims Magazine, May 1979. Haymerket Publishing Ltd., London.
- (2) Broughton Cally Papers, Scottish Records Office, Edinburgh  
SRO GD 10/911.
- (3) Ibid.
- (4) Ibid.
- (5) Ibid.
- (6) Ibid.
- (7) Ibid.
- (8) Diaries of Robert Harvie (privately owned, not accessible to public)
- (9) Logan Home Papers, Scottish Records Office, Edinburgh  
SRO GD 1/384/26.
- (10) Leven Melville Papers, Scottish Records Office, Edinburgh  
SRO GD 26/6/207.
- (11) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh  
SRO GD 18/2125.
- (12) Lewis, William, M.D. *Materia Medica*, London, 1761.
- (13) *A Compendious Body of Physick.....Being Principally the Common-  
place Book of a late able PHYSICIAN, by which he successfully,  
for many years, regulated his practice . Third edition. London.  
J. Osborn. 1747. Part II of Family Magazine for 1747.*
- (14) Hamilton Dalrymple Papers, Scottish Records Office, Edinburgh  
SRO GD 110/1178.
- (15) *A Poor Man's Physician of the Receipts of the Famous John Moncrief  
of Tippermalloch. Third edition, Thomas Heriot, Edinburgh, 1731.*
- (16) *The Compleat Midwife's Companion by Mrs Jane Sharp. Third edition,  
John Marshall, London, 1724. Page 237.*

- (17) Pitcairne Papers. Manuscript Department, Edinburgh University Library. Dc.1.62.
- (18) John Pechey, M.D. A Compleat Herbal of Physical Plants. London, Henry Bonwocke, 1694. Page 186.
- (19) William Buchan, M.D. Domestic Medicine. Glasgow, 1806. Footnote, page 271.
- (20) Medical Botany or History of Plants in the Materia Medica of the London, Edinburgh and Dublin Pharmacopoeias. London, 1819. Entry number 22.
- (21) Loc.cit. (2)
- (22) Loc.cit. (14)
- (23) Op.cit. (20). Entry number 106.
- (24) Girdwood, R.H. Clinical Pharmacology. Twenty-fourth edition. Balliere Tindall, London, 1979. Page 363.
- (25) Loc.cit. (11).
- (26) Ibid.
- (27) The Pharmacopoeia of the Royal College of Physicians at Edinburgh. Faithfully translated from the Fourth Edition with useful Notes on the Materia Medica, and practical Observations on the Preparations, both Simple and Compound to which are added The Prescriptions, as well Extemporaneous as Officinal, in Use at the Royal Hospital. By W. Lewis, M.B. F.R.S. London, John Nourse, 1748. Page 183.
- (28) Alexander Pennecuik, M.D. Description of Tweeddale. Leith, 1815. (Reprint of earlier work of 1715). Page 81.
- (29) Clerk of Penicuk Papers, Scottish Records Office, Edinburgh. SRO GD 18/2142.
- (30) Op.cit. (27)
- (31) Ibid., tincture number 32.
- (32) Ibid., page 48.

- (33) Martindale. The Extra Pharmacopoeia. Twenty-third edition. Volume I. London. Pharmaceutical Press, 1952. Page 336.
- (34) Op.cit. (27), page 70.
- (35) Loc.cit. (14).
- (36) Op.cit. (20). Entry number 36 (misnumbered as 38).
- (37) Op.cit. (19), page 324.
- (38) Edinburgh Evening Courant, Thursday July 12th, 1753.
- (39) Robert P. Multhauf. J.B. Van Helmont's Reformation of the Galenic Doctrine of Digestion. Bull.Hist.Med. 29, 1955 Pages 154-163.
- (40) Walter Pagel J.B. Van Helmont's Reformation of the Galenic Doctrine of Digestion - and Paracelsus. Bull.Hist.Med. 29, 1955. Pages 563-568.
- (41) J.B. Van Helmont Oriatrike, London, Lodowick Loyd, 1662 quoted by Robert P. Multhauf in loc.cit. (39).
- (42) Lester S. King Eighteenth Century Medical Theory and Practice. Bull.Hist.Med. 46, 1972, pages 1-15.
- (43) Joshua O. Leibowitz A Probable Case of Peptic Ulcer as Described by Ametus Lusitanus (1556). Bull.Hist.Med. 27, 1953, pages 212-216.
- (44) Pitcairn, Archibald. The Whole Works, trans. by G. Sewell and I.T. Desaguliers. Second edition, London, 1726, pages 106-138. Quoted by Walter Pagel in loc.cit. (40).
- (45) Rene-Antoine Ferchault de Réamur. Sur la digestion des oiseaux Academie des Sciences Paris, 1752. Quoted by Donald G. Bates, in The Background to John Young's Thesis on Digestion. Bull.Hist. Med. 36, 1962, pages 341-361.

- (46) Foster, M. Lecture on the History of Physiology, Cambridge University Press, 1901, pages 200-223.  
Quoted by Bates, see (45).
- (47) Margery Rowe Plants of Russian Folk Medicine. Janus 65, 1978  
Pages 259-282.
- (48) Schauenberg, P. & F. Paris. Guide to Medicinal Plants.  
Lutterworth Press, London, 1977. Page 319.

List of Ingredients of Stomach Pain and Colic Remedies, with their modern names and any known relevant pharmacological properties

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Acetos, Sourocks	<u>Rumex acetosa</u> L.	Laxative, stomachic (Sch)
Agrimony	<u>Agrimonia eupatoria</u> L.	Astringent (Sch)
Aloes Succatrina	<u>Aloe perryi</u> Baker	Purgative (P)
Angelica	<u>Angelica archangelica</u> L.	Carminative, stomachic (Sch)
Anise	<u>Pimpinella anisum</u> L.	Carminative (P)
Assa foetida	<u>Ferula foetida</u> , Reg <u>Ferula rubicaulis</u> Boiss and other spp	Stimulant, antispasmodic, useful in flatulent colic, allays gastric irritation (P): Carminative (Mart)
Balm	<u>Melissa officinalis</u> L.	Stomachic, carminative, sedative (Sch)
Balsam Peru	<u>Myroxylon pereirae</u> Klotsch	
Barley	<u>Hordeum vulgare</u> L.	Nutritive, demulcent (P)
Bayberries	<u>Myrica cerifera</u> L.	Stimulant (P): Astringent (Mart)
Benjamin	<u>Styrax tonkinensis</u> Craib	
Bitter orange	<u>Citrus aurantium</u> L.	Stomachic, carminative (P)
Black cherry	<u>Prunus avium</u> L.	
Brooklime	<u>Veronica beccabunga</u> L.	Stimulant, aperitive (Sch)
Broom	<u>Cytisus scoparius</u> L.	
Bugloss	<u>Lycopus</u> sp	
Burdock	<u>Arctium lappa</u> L.	Choleretic (Sch)
Calamint	<u>Calamintha officinalis</u> Moench	
Calamus	<u>Acorus calamus</u> L.	Aromatic, carminative, stomachic (P)
Camomile	<u>Anthemis nobilis</u> L.	Stomachic, antispasmodic (P)
Caper	<u>Capparis spinosa</u> L.	Tonic (Sch)
Cardamum	<u>Elettaria cardamomum</u> Maton var. minuscula Burkill	Carminative, stomachic (P)
Cardiaca	<u>Leonurus cardiaca</u> L.	Antispasmodic (P): Sedative (Sch)
Cardus	probably <u>Cnicus benedictus</u> L.	a bitter and aperitive (Sch)
Carvum	<u>Carum carvi</u> L.	Antispasmodic, carminative, stomachic (Sch)
Castor	<u>Ricinus communis</u> L.	Purgative, useful for colic (P)
Celidon	<u>Chelidonium majus</u> L.	Purgative (P)
Centaury	<u>Erythraea centaurium</u> Pers	Aromatic, bitter, stomachic (P)

Chamaedrys	<u>Teucrium chamaedrys</u> L.	Stimulant, tonic (P)
Chamaepitys	<u>Ajuga chamaepitys</u> Schreb	Stimulant (P)
Cinnamon	<u>Cinnamomum</u> <u>ceylanicum</u> , Nees	Aromatic, stimulant, stomachic, tonic (Sch)
Citrons	<u>Citrus medica</u> L.	
Clove	<u>Syzygium aromaticum</u> (L.) Merrill and Perry	Aromatic, stomachic, carminative, analgesic (Sch)
Cochineal	colouring from dried insect <u>Dactylopius</u> <u>coccus</u> Costa (Mart)	
Corander/ Coriander	<u>Coriandrum sativum</u> L.	Stomachic, antispasmodic, carminative (Sch)
Corn Poppies	<u>Papaver rhoeas</u> L.	Sedative (Sch)
Cubebs	<u>Piper cubeba</u> L.	Aromatic (P)
Cummin	<u>Cuminum cyminum</u> L.	Carminative (P)
Dill	<u>Anethum graveolens</u>	Carminative, stomachic (P)
Dwarf Elder	<u>Sambucus ebulus</u> L.	Laxative, choloretic (Sch)
Elder	<u>Sambucus nigra</u> L.	Mucilaginous, antispasmodic (Sch)
Elicampain	<u>Inula helenium</u> L.	Used in digestive atony (Sch)
Fennel	<u>Foeniculum vulgare</u> Moller	Stimulant, carminative, stomachic (Sch)
Frankincense	<u>Boswellia</u> sp	
Fumitory	<u>Fumaria officinalis</u> L.	Stomachic, laxative (Sch)
Galangal	<u>Alpinia officinarum</u> Hance	Carminative, aromatic (Mart)
Garlick	<u>Allium sativum</u> L.	Stomachic, antispasmodic, carminative (Sch)
Gentian	<u>Gentiana lutea</u> L.	Stimulates gastric secretion (Mart): Tonic (Sch)
Ginger	<u>Zingiber officinalis</u> Rose	Stimulant, carminative (P)
Glyceriza	see Liquirish	
Guaiacum	<u>Guaiacum officinale</u> L.	
Gum Ammoniacum	<u>Dorema ammoniacum</u> G. Don.	Stimulant, antispasmodic (P)
Imperatoria	<u>Peucedanum ostruthium</u> (L.) Koch	Stomachic (Sch)
Juniper	<u>Juniperus communis</u> L.	Stomachic, tonic, carminative (Sch)
Laudanum	= Tinctura Opii (BP)	relieves intestinal colic (Mart)

Laurel	<u>Laurus nobilis</u> L.	Stomachic (P)
Lilics	<u>Lilium</u> sp	
Lemons	<u>Citrus limonia</u> Osbeck	Tonic (P)
Lint seed	<u>Linum usitatissimum</u> L.	Laxative, demulcent (P)
Liquorish	<u>Glycyrrhiza glabra</u> L.	Antispasmodic (Sch)
Loveage	<u>Levisticum officinale</u> Koch	Carminative (Sch)
Mace	= aril of nutmeg, q.v.	
Madder	<u>Rubia tinctorum</u> L.	
Mastic	<u>Pistacia lentiscus</u> L.	
Mint	probably <u>Mentha aquatica</u> L.	Carminative (Sch)
Myrrh	<u>Commiphora myrrha</u> , Engl	
Nutmeg	<u>Myristica fragrans</u> Houtt	Stimulant, aromatic, narcotic (Sch)
Oatmeal	<u>Avena sativa</u> L.	Antispasmodic (P)
Organy	<u>Origanum vulgare</u> L.	Stomachic, carminative (Sch)
Palmoil	<u>Elaeis Guineensis</u>	Rich in Vitamin A (Mart)
Pellitory	<u>Anacyclus pyrethrum</u> D.C.	Local rubefacient (P)
Pepper	<u>Piper nigrum</u> L.	Stimulates digestive secretions (Sch): Carminative (P)
Peppermint	<u>Mentha piperita</u> L.	Carminative, relieves colic, slightly analgesic (Mart)
Persell	<u>Petroselinum crispum</u> (Miller) Turrill	Stomachic, carminative (P)
Peruvian Bark	<u>Cinchona</u> sp (source of quinine)	Stomachic (Mart)
Raisins	<u>Prunus</u> sp	
Rhubarb	<u>Rheum rhabarbarum</u> L.	Purgative (Sch)
Rosemary	<u>Rosmarinus officinalis</u> L.	Stomachic, carminative (Sch)
Roses	<u>Rosa</u> sp	
Saffron	<u>Crocus sativus</u> L.	Carminative (P)
Sasafras	<u>Sassafras variifolium</u> (Salisb) Kuntze	Stimulant (P)
Scorzonera	<u>Scorzonera</u> sp	
Scurvy grass	<u>Cochlearia officinalis</u> L.	Stomachic (Sch)
Sena of Alexander	<u>Cassia augustifolia</u> Vahl	Laxative (Sch)

Sesamimum	<u>Sesamum indicum</u>	Laxative, demulcent (P)
Sorrel	<u>Rumex acetosa</u> L.	
Sow thistle	<u>Sonchus oleracens</u> L.	
St. John's Wort	<u>Hypericum perforatum</u> L.	
Storax	<u>Liquidambar orientalis</u> Miller	
Sweet Almond	<u>Prunus amygdalus</u> Batsch var. <u>sativa</u>	Improves digestion (Sch)
Tamahacca	probably <u>Larix americana</u> Michx	Laxative (P)
Tamarisk	<u>Tamarix gallica</u> L.	
Tobacco	<u>Nicotiana tabacum</u> L.	Toxic (Sch)
Valerian	<u>Valeriana officinalis</u> L.	Tranquilliser, antispasmodic, stomachic (Sch)
Watercress	<u>Nasturtium officinale</u> R. Br.	Stimulant (Sch)
White Dittany	<u>Dictamnus albus</u>	
Wood ash	alkaline, rich in potash	
Wormwood	<u>Artemisia absinthium</u>	Stomachic (Sch)
Zedoary	<u>Curcuma zedoaria</u> , Rose Aromatic,	carminative, stomachic (P)

Key to symbols

Sch = Schanenberg, P. and Paris F. Guide to Medicinal Plants.  
Lutterworth Press, London, 1977

P = Potter's New Cyclopaedia of Botanical Drugs and Preparations by  
R.C. Wren. Health Science Press, Devon, 1975

Mart = The Extra Pharmacopoeia (Martindale) 23rd Edition.  
Pharmaceutical Press, London, 1952

CHAPTER IX

Domestic Remedies for Headache in Eighteenth-Century Scotland

Headache is still today one of the ailments commonly treated with home remedies: few people visit a doctor with an ordinary headache. The abundance of eighteenth-century Scottish domestic recipes to treat headache suggest that the same held good then, with this difference, that in eighteenth century Scotland the remedies were mostly compounded at home, whereas now we depend largely on bought preparations.

In the early eighteenth century, Lady Catherine Stewart (see Page 32 ), recorded a recipe "that my son used in France", consisting of seeds and syrup of *Nymphaea*, used as an emulsion (1). Later in the century, in 1752, Sir John Clerk of Penicuik suggested that, for a headache

"Nothing is a better specific than the Jesuit's Bark" (2). The Jesuit's Bark is Cinchona, the source of quinine. Quinine is effective in reducing some types of fever, so the Jesuit's Bark would be effective in the treatment of some fever headaches.

At the end of the eighteenth century, we find this recipe among the Logan Home family papers:

"Betony leaves gathered just before flowering - used in lieu of tea - cures headache" (3).

John Moncrief in his book 'A Poor Man's Physician' (first published in 1712), gives numerous remedies for headache, which are given in detail in a table at the end of this chapter (see Page 235 ). Here only some of the more interesting ones will be mentioned. Those given here are taken from the third edition of his book (1731) (4).

Among Moncrief's remedies for "headache coming of heat", are birch tree juice applied, and green leaves of henbane. Birch leaves contain methyl salicylate (5), allied to aspirin, and might well have proved successful. Henbane (Hyoscyamus niger L.) is a highly toxic plant, containing a number of powerful alkaloids. It has sedative, analgesic and spasmolytic properties (6), and again would have been an effective, if dangerous, antidote for headache. Camomile is another of the herbs which Moncrief recommends for headache coming of heat. This plant (Anthemis nobilis L.) is now known to have antispasmodic properties.

It is of interest that Moncrief distinguishes headaches arising from different causes: he mentions headache coming of cold, headache coming of heat, and, still more interestingly, recognises migraine as a separate clinical entity, and supplies numerous remedies for it (see page 235). He refers to the condition as "megrim". Most of his medical contemporaries (e.g. Pitcairne, John Pechey) refer to "hemis-  
crania", the term from which the word migraine is derived.

The only internal remedy which Moncrief suggests for "megrim" is the "often use of the Decoction of Sena, or Infusion", advice which reflects the eighteenth-century conviction that migraine was related to digestive disorders. His external remedies for migraine fall into four categories: substances used to provoke sneezing (e.g. flowers of Achillea ptarmica, still today known as sneezewort), substances put up the nose to "purge" the head (e.g. juice of Coleworts); substances

to be chewed, so-called "masticatories", also intended to "purge" the head (e.g. onion, mastic) and, lastly, substances to be applied to the head (e.g. powdered incense, myrrh, white of egg). These migraine remedies are given more fully on page 236.

It is worth noting that many of the ingredients of Moncrief's migraine remedies have a strong smell, and this leads us on to the idea that the value of a herbal remedy does not solely consist in its biochemical composition. It is a well-known fact that pain can be lessened by 'distraction': the physiological basis for this fact is now established (7). Another important factor that can dramatically reduce pain is relaxation - everyone knows how much worse a headache becomes if one is tense and anxious. Inhaling pleasant, or even strongly unpleasant, smells, can distract one from the pain and aid relaxation.

To this extent even the apparently irrelevant remedies suggested by Moncrief and others, may have had some real value.

One of Moncrief's migraine remedies is 'borrowed' from the medical profession. A Dr Jones, he tells us, recommends a cloth soaked in Euphorbium and vinegar laid on the forehead and temples, or on the head on the side opposite to the pain. Euphorbium (spurge) has highly caustic juice, and the local sensation of burning and heat might serve to lessen the pain slightly. Likewise, a "vesicatory" (i.e. agent causing blistering) is recommended by Moncrief to be applied to the shaven head in cases of severe headache.

A modern textbook of Physiology tells us that  
"Inhibition in central sensory pathways may explain the efficacy of

counterirritants. Stimulation of the skin over an area of visceral inflammation produces some relief of the pain due to visceral disease. The old-fashioned mustard plaster works on this principle." (8).

It is hardly surprising to find that migraine was distinguished as a separate entity from other types of headache by orthodox medical men in the eighteenth century, as well as by laymen such as Moncrief. Before considering eighteenth-century theories of migraine, it would be as well to consider its current definition. A modern medical dictionary defines migraine as

"A condition characterised by recurring unilateral, frontal or temporal headaches, accompanied by visual disturbances known as fortification figures, and nausea and/or vomiting." (9).

Concerning the causes of migraine, a recent textbook of medicine tells us

"The patho-physiology of migraine is thought to be an initial constriction of vessels...and a later dilatation, mostly of the branches of the external carotid artery, which causes the headache" (10).

Treatment nowadays includes reassurance, sedation, and administration early in the attack of ergotamine tartrate.

Eighteenth century medical theories concerning the origin of migraine have been well reviewed by Schiller (11). He tells us that Galen (A.D. 131-200) attributed the pain of migraine to the upward thrust of vapours into the brain. Involvement of the blood supply to the brain was recognised by the eighteenth century Swiss physician Johann Casper. Friedrich Hoffman of Halle (1660-1742) wrote, in 1695:

"A hemicrania occurs when from one part of the head where the very small veins and arteries are obstructed, the blood rushes with greater force into another part, distends the vessels, and thus produces pain." (12)

It was the Edinburgh Dr Robert Whytt (1714 to 1766) who was the first to suggest a neurological basis for migraine. Indeed, he points out that there are "very few disorders which may not, in a large sense, be called nervous". Regarding migraine, he says

"nerves suffer....and the small blood vessels to which they are distributed".

Whytt postulated alternate contractions and relaxations of the blood vessels as the cause of pain. He also provided continuity with the earlier humoral theories by suggesting a "humor" which obstructed the blood vessels and hence the nerves of the head (13). Whytt's theory has a surprisingly modern ring to it: compare his words with the modern description of the aetiology of migraine on page 226.

Whytt also noted the "sympathy" between the stomach and the head in migraine, as did John Fothergill in 1784, in his article "Remarks on the Complaint commonly known under the name of the sick-headach" (14). We have already seen that Moncrief noted the connection between migraine and digestive disorders (see page 224).

Interestingly, John Pechey, M.D., in his 'Compleat Herbal' of 1694, (15), suggests a cure for migraine which has recently come back into vogue, namely the use of Feverfew, (Chrysanthemum parthenium (L.) Bern.) Pechey's advice is to

"Take of Feverfew one Handful, warm it in a frying-pan, apply it twice or thrice hot; this cures an Hemicrania: And the crude Herb applied to the Top of the Head, cures the Head-ach."

As recently as the 1970's, Feverfew as a 'cure' for migraine was revived in the popular press, and its claims are currently being investigated by the Medical Research Council.

Many eighteenth century 'cures' for both headache and migraine were, as we have seen, applied externally. One might at first sight be inclined to dismiss any possible systemic effects of the ingredients when used in this way. However, recent research has shown that a number of drugs are absorbed very effectively through the skin: the use in the United States of nitroglycerin paste rubbed on to the chest to relieve angina (16) is a case in point. To what extent the various plant alkaloids in the herbal remedies can be absorbed through the skin is at the present time purely a matter of speculation.

Now let us consider the practical treatment of headache and migraine by the orthodox medical practitioner in eighteenth century Scotland. We shall begin with the advice of William Buchan, M.D., as given in his book 'Domestic Medicine', since his views are intermediate between 'folk' and strictly orthodox medicine.

As we have seen in the case of other diseases, Buchan gives a mixture of 'official' medical advice and domestic remedies (17). He distinguishes various types of headache, e.g. cephalagia affecting part of the head, cephalaea affecting it all, hemicrainia affecting one side only, clavis hystericus consisting of a localised pain in the forehead. He points out that fever often accompanies headache, which is accordingly

"sometimes an original disease, and at other times only symptomatic".

Buchan explains that a "suppression of customary evacuations", such as sweating of feet, bleeding of the nose, may cause headache, which can therefore be relieved by sudorifics (agents provoking perspiration), e.g. decoction of Woods, Sarsaparilla with raisins and liquorice, bleeding, issues, or irritants snuffed up the nose. He recommends a light diet, "diluting" liquors (e.g. barley water), blisters on the head and, in extreme cases, Opiates used both internally and externally, e.g. Bate's Anodyne Balsam rubbed on, Laudanum in Valerian or Pennyroyal tea. "Aether", or Ward's essence (camphor in volatile aromatic spirit) rubbed on may also help.

For headache occasioned by great heat, Buchan recommends cooling medicines, such as "saline draughts with nitre".

A "hemicrania", Buchan tells us, especially a periodical one, "is generally owing to a foulness of the stomach, for which gentle vomits must be administered, as also purges of rhubarb. After the bowels have been sufficiently cleared, chalybeate waters, and such bitters as strengthen the stomach, will be necessary." ( 18)  
He also recommends wearing flannel over the forehead at night.

Before considering strictly orthodox medical treatment for headache in eighteenth century Scotland, it should be emphasised that most people will have treated most headaches themselves, at home; a situation which still prevails today. Only severe and recurrent cases would seek medical advice; and of these, only the higher-born could afford such help.

Eighteenth-century case-notes are regrettably rare, but there are some of interest in an anonymous eighteenth-century manuscript among the Hamilton Dalrymple family papers (19)

"Pain in ye head

I cured an obstinate pain in the head by keeping on a blister over it all for ye space of two days "

and elsewhere in the same manuscript

"Asa foetida

given to ...Miss Hallyburton for pain weight and confusion in the head with great sinking in the spirits....to Mrs (?), nervous fever with a sunk unequal pulse and pain in the head....Mrs Pillance for a sinking in the spirits and pain in the head with success

When it is continued 3 quotidie it purges." (i.e. a daily dose of  $\frac{1}{2}$  drachm).

In our present century Martindale has this interesting comment to make on Asafoetida:

"It was at one time widely used for its supposed effect in nervous disorders, but any effect it might have in these conditions is attributed entirely to the psychological response to the objectionable odour and taste." (20).

Among the Pitcairne Papers (21) in Edinburgh University Library, there is a record of a Dr Maitland in 1705 prescribing for William Dalrymple, aged 13 years, who has "fits and headache". The prescription includes black hellebore roots and valerian, both of which are now known to have effects on the central nervous system (see Table II, page 237).

The Edinburgh Pharmacopoeia contains various preparations for headache: it is, of course, difficult to know how many of these were used in

practice. Those given here are taken from the fourth edition, 1748, translated by Lewis (22): -

1. Tinctura cephalica

Composed of Paeony roots, Casmunair, White Dittany, Wild Valerian, Mistletoe of Oak, Peacock's Dung and Rosemary flowers.

Lewis has some scathing comments on this preparation. The dittany, valerian and mistletoe he regards as "mere expletives", while the peacock's dung is "too filthy and ridiculous an article to deserve any further notice" (23).

2. Tinctura cephalica purgans

As above, with the addition of Sena and Hellebore.

3. Bate's anodyne balsam (mentioned by Buchan, see page 229)

Spanish soap, rosemary, camphor, organum and opium

4. Emplastrum cephalicum

Yellow wax, Tamahacca, Myrrh, Castor, Venice Treacle (itself composed of 64 ingredients!), Lavender oil, Amber oil.

These are the only specifically 'cephalic' remedies contained in the pharmacopoeia. The treatment of fever, and its accompanying headache is beyond the scope of this chapter. Suffice it here to say that the Jesuit's bark (Cinchona sp.) and opium were the most effective eighteenth-century weapons against fever headache.

It is interesting to note that, as in the case of numerous other diseases, the orthodox medical remedies are fewer in number than the home remedies, but each one is, on the whole, more complicated. It would need to be a severe headache indeed that would drive anyone to

prepare for themselves the Emplastrum cephalicum, with its grand total of seventy-two ingredients, and few people in eighteenth-century Scotland would have been able to afford to buy the preparation.

REFERENCES

- (1) Broughton Cally Papers, Scottish Records Office, Edinburgh  
SRO GD 10/911
- (2) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh  
SRO GD 18/2142
- (3) Logan Home Papers, Scottish Records Office, Edinburgh  
SRO GD 1/384/26.
- (4) The Poor Man's Physician, or the Receipts of the Famous John  
Moncrief of Tippermalloch. Third edition, Heriot, Edinburgh, 1731.
- (5) The Extra Pharmacopoeia. Martindale. Twenty-third Edition in  
two volumes. London, Pharmaceutical Press. Volume I, 1952  
page 88.
- (6) Schauenberg, P. & F. Paris Guide to Medicinal Plants .  
Lutterworth Press, London, 1977. Pages 39 and 219.
- (7) William F. Ganong, M.D. Review of Medical Physiology. Seventh  
Edition. Lange, Los Altos, California, 1975. Page 59.
- (8) Ibid., page 81.
- (9) Thomson, W.A.R. Thomson's Concise Medical Dictionary. Churchill  
Livingstone, Edinburgh, 1973. Page 202.
- (10) Houston, J.C., Joiner, C.L. & J.R. Trounce A Short Textbook of  
Medicine. Fifth edition. Hodder & Stoughton, London, 1975  
Page 269.
- (11) Schiller, F. The Migraine Tradition. Bull.Hist.Med., 49, 1975  
No. 1, pp1-20.
- (12) Robert Whytt Observations on the nature causes and cure of those  
disorders which have been commonly called nervous, hypochondriac,  
or hysteric: to which are prefixed some remarks on the sympathy  
of the nerves. Third edition. Edinburgh, Becket, 1767.  
Quoted by Schiller, loc.cit.(11).

- (13) Ibid.
- (14) John Fothergill Remarks on that complaint commonly known under the name of the sick-headach. Med.Observ. & Inquir. 6, 1784  
Pages 103-137  
Quoted by Schiller, loc.cit. (11)
- (15) The Compleat Herbal of Physical Plants by John Pechey of the College of Physicians in London. London, Bonwicke, 1694  
Page 81.
- (16) L.H. Opie Drugs and the Heart. Lancet, No. 8171, 5th April, 1980.
- (17) Domestic Medicine by William Buchan, M.D., Fellow of the Royal College of Physicians at Edinburgh. Third edition, London, 1774
- (18) Ibid., page 386.
- (19) Hamilton Dalrymple Papers, Scottish Records Office, Edinburgh  
SRO GD 110/1178.
- (20) Op.cit. (5), page 245.
- (21) Papers of Archibald Pitcairne 1701-1708. Edinburgh University Library Manuscript Department. Dc.1.62.
- (22) The Pharmacopoeia of the Royal College of Physicians at Edinburgh. Faithfully translated from the fourth edition....by W. Lewis, M.B., F.R.S. London, John Nourse, 1748.
- (23) Ibid., tincture No. 6, Page 127, ff.

John Moncrief's Headache Remedies

A. General Remedies:

1. Anoint with oil of Amber
2. Distilled water of Vervain, drunk and applied externally  
"Green Vervain alone, hung about the neck, hath cured two Patients,  
when many other medicines failed, saith Torestus".
- 3, Issues between the thumb and forefinger; horse-leeches, a vesicatory  
on shaven head, sheep's lungs applied hot, a cauter upon the coronal  
suture.

B. For Headache coming of Cold:

Oil or water of Vervain applied; Galangal, Lavender, Musk, Amber  
or Civet put up in the Nose.

C. For Headache coming of Heat

Apply Stone of Tree-Moss in Rose-water; or juice of Birk-tree, red  
roses boiled in wine, or slime of "quick snails" and oil of roses;  
or yolk and white of egg with rose-water and oil of roses; purpy  
bruised, beans boiled in vinegar, green leaves of Water-lily or  
Henbane; juice of any kind of sea-green; leaves of camomile dried  
and applied; a load-stone laid on the Head; or a piece of Gold  
rolled up in the Nose, and another holden at the mouth.

John Moncrief's Remedies for "Megrin"

A. External Applications:

Powdered incense, myrrh, white of egg, a cloth soaked in Euphorbium and vinegar laid on the opposite side to the pain, or on the forehead and temples.

B. Substances to provoke sneezing:

Flowers of Ptarmica; dry powder of Crow-foot-roots; powder of white Hellebore, of Mustard seed, or of Pepper.

C. Substances put up the Nose to 'purge' the Head:

Juice of: Coleworts, Beets, Great Celidon, Flower de Luce, or Marjoram.

D. 'Masticatories', chewed to 'purge' the Head:

Onion, Pellitory, Staphis agria, raisins with Pepper, Mastic and odoriferous wax, roots of Imperatoria, Mustard, Cresses.

E. Internal Remedies

"The often use of the Decoction of Sena, or Infusion".

Ingredients of Headache Remedies, with their Modern Names and any known relevant pharmacological properties

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Amber Oil	Oleum Succini B.P.C.	Disagreeable odour, burning taste, used as rubefacient (Mart)
Assa foetida	<u>Ferula foetida</u> Reg and other spp	Antispasmodic (P)
Beans	<u>Phaseolus</u> sp	Eaten raw can cause sickness and diarrhoea (Sch)
Beet	<u>Beta vulgaris</u> L.	Expectorant (Sch)
Betony	<u>Stachys officinalis</u> (L) Trevisan	Astringent, provokes sneezing (Sch)
Birk tree juice	<u>Betula</u> sp	Contains analgesic salicylate (N)
Black hellebore	<u>Helleborus niger</u> L.	Toxic, local anaesthetic (Sch)
Camomile	<u>Anthemis nobilis</u> L.	Antispasmodic, tonic, used for migraine (Sch)
Camphor	<u>Cinnamomum camphora</u> T. Nees and Eberm	Sedative, anodyne (P): rubefacient (Sch)
Casmunair	?	
Castor	<u>Ricinus communis</u> L.	Purgative (P)
Cinchona	<u>Cinchona</u> sp	Tonic, astringent, febrifuge (Sch); contains quinine
Coleworts	<u>Brassica oleracea</u> L.	
Cresses	<u>Tropaeolum</u> sp or <u>Lepidum</u> sp	
Crowfoot	<u>Ranunculus repens</u> L.	Acrid, poisonous
Euphorbium	<u>Euphorbia</u> sp	Causes blistering on skin (Sch)
Feverfew	<u>Chrysanthemum</u> <u>parthenium</u> (L) Bernhardi	
Flower de Luce	<u>Iris pseudacorus</u> L.	Astringent, cooling (P)
Galangal	<u>Alpinia officinarum</u> Hance	Aids digestion (Sch)
Great Celidon	<u>Chelidonium majus</u> L.	Toxic, analgesic, antispasmodic (Sch)
Henbane	<u>Hyoscyamus niger</u> L.	Sedative, analgesic, spasmolytic (Sch)
Imperatoria	<u>Peucedanum</u> <u>ostruthium</u> (L) Koch	Stomachic, diaphoretic (Sch)
Incense	<u>Boswellia Carterii</u> and other spp	
Laudanum	contains opium	Analgesic

Lavender	<u>Lavandula angustifolia</u> Mill	Stimulant, antispasmodic, tonic, carminative, stomachic, diuretic, sedative (Sch)
Liquorice	<u>Glycyrrhiza glabra</u> L.	
Marjoram	<u>Marjorana hortensis</u> Moench	Expectorant, aromatic (Sch)
Mastic	<u>Pistacia lentiscus</u> L.	Used like chewing gum (N)
Mistletoe of Oak	<u>Viscum album</u> L.	Vasodilator (Sch)
Mustard	<u>Sinapis alba</u> L.	Seeds laxative; rubefacient when ground (Sch)
Myrrh	<u>Commiphora myrrha</u> Engl.	Expectorant (Sch)
Nymphaea	<u>Nymphaea alba</u> L.	
Onion	<u>Allium cepa</u> L.	
Origanum	<u>Origanum vulgare</u>	Aromatic, antispasmodic, expectorant
Paeony	<u>Paeonia officinalis</u> L.	Antispasmodic (P)
Pellitory	<u>Anacyclus pyrethrum</u> D.C.	Causes salivation, rubefacient (P)
Pennyroyal	<u>Mentha pulegium</u> L.	Diaphoretic (P)
Pepper	<u>Piper nigrum</u>	Irritates mucous membranes (Sch)
Ptarmica	<u>Achillea Ptarmica</u> L.	
Purpy	?	
Raisins	<u>Vitis vinifera</u> L.	
Red roses	<u>Rosa</u> sp	Astringent (N)
Rosemary	<u>Rosmarinus officinalis</u> L.	Aromatic
Sarsaparilla	<u>Smilax aristolochiae</u> <u>folia</u> , Mill	Diaphoretic (P)
Sea-Green	probably a seaweed	
Sena	<u>Cassia angustifolia</u> Vahl	Laxative (Sch)
Staphis agria	<u>Delphinium staphisagria</u> L.	Tastes bitter and tingling (P)
Stone of Tree Moss	?	
Tamahacca	<u>Larix americana</u> Michx.	
Valerian	<u>Valeriana officinalis</u> L.	Anodyne, antispasmodic (P): sedative (Sch)
Venice Turpentine	64 ingredients, including opium	
Vervain	<u>Verbena officinalis</u> L.	"nervine" (P)

Water Lily	<u>Nymphaea</u> <u>alba</u> L.	
White Dittany	<u>Dictamnus</u> <u>albus</u>	
White Hellebore	<u>Veratrum</u> <u>album</u> L.	Narcotic; causes violent sneezing (Sch)

Key to Symbols

Mart = Martindale. The Extra Pharmacopoeia, 23rd Edition.  
London, Pharmaceutical Press, 1952

P = Potter's New Cyclopaedia of Botanic Drugs and Preparations by  
R.C. Wren. Health Science Press, Devon, 1975

Sch = Schanenberg, P. & F. Paris. Guide to Medicinal Plants.  
Lutterworth Press, London, 1977

N = Nelson, A. Medical Botany. Livingstone, Edinburgh, 1951.

CHAPTER X

Consumption in Eighteenth-Century Scotland

Throughout the eighteenth century, Consumption was the largest single killer disease of adults in the city of Edinburgh. The Mortality Bills for the years 1740-1755 show an average annual figure of 20% of all deaths in the city attributable to consumption.

The situation in Edinburgh seems to have been typical for Britain in general in the eighteenth century. The London Bills of Mortality from 1796 to 1799 show that more than one third of all deaths were attributable to consumption (2). At Holycross in Shropshire, approximately one quarter of all deaths were due to consumption, while over a two-year period in Chester, recorded by Haygarth, the proportion was about one fifth (3). At Bristol, according to Beddoes's Hygeia, "t~~an~~ die of consumption out of twenty-four" (4). It was noted by practically all writers on the subject, that consumption was commoner in cities than in the countryside. Buchan, for example, points this out (5).

There can be no doubt at all that consumption was a major killer in eighteenth century Britain. But what exactly was meant, in the eighteenth century, by 'consumption'? Here we come up against the problem already encountered in discussing other eighteenth-century ailments, viz the difficulty of identifying in modern terms an eighteenth-century diagnosis. The term 'consumption', like its contemporary 'phthisis', implies a wasting of the body. This feature alone could of course be symptomatic of a wide range of different illnesses, including cancer. Perusal of the eighteenth-century literature shows that, although there was not a strict definition of consumption, most authors included the following symptoms: cough (with or without spitting of blood); loss

of weight; periods of fever. The disease so defined corresponds more or less with what we would to-day term pulmonary tuberculosis.

The difficulty of defining consumption was recognised during the eighteenth century. Dr Fothergill, for example, suggests that the mortality from consumption

"is estimated too high from the parochial returns, all those who die of any lingering disease, being generally reported as consumptive." (6).

With this proviso in mind, the term 'consumption' will be used throughout this chapter, as synonymous with pulmonary tuberculosis. In modern medical terms, the symptoms of this illness are described as

"chronic ill health, cough with mucoid sputum, low-grade fever, anorexia, tiredness, progressive weight loss, and night sweats" (7).

Hardly surprisingly, the connection between pulmonary tuberculosis and tubercular glands elsewhere in the body, was not clearly recognised during the eighteenth century, although some connection between 'scrofula' or King's Evil (i.e. swollen glands in the neck) and consumption, was noticed at intervals throughout the century. On the whole, though, scrofula and consumption were regarded as entirely separate diseases. We shall return to this point later in the chapter.

Before discussing eighteenth century theories of consumption, it might be helpful to briefly summarise twentieth century knowledge concerning the aetiology of tuberculosis. Two bacilli are now recognised as responsible for causing tuberculosis. Infection with *Mycobacterium*

tuberculosis (first isolated by the German Robert Koch, 1843-1910) generally leads to lung tuberculosis, while *Mycobacterium bovis*, (differentiated by the American Theobald Smith, 1839-1934), from milk from infected cows, causes cervical and mesenteric lesions.

A primary infection by *M. tuberculosis* results in a local inflammatory reaction at the point of entry and an enlargement of lymph nodes. The disease may remain dormant for long periods of time, and a resurgence may follow either renewed exposure to the bacterium, or lowering of the patient's resistance, for example following some other illness. Lesions may be confined to the lungs (pulmonary tuberculosis), disseminated throughout the body (miliary tuberculosis), or involving the lymph glands (tuberculous lymphadenitis). The present 'front-line' drugs in the treatment of tuberculosis are streptomycin, isoniazid and paraaminosalicylic acid. Even with our present-day effective weapons for fighting the disease

"It is never safe to regard any tuberculous infection as permanently cured" (8).

In the history of the conquest of TB, recognition of the importance of social conditions has been as significant as the development of new drugs. In his book on the Control and Eradication of Tuberculosis, Sutherland points out that Edinburgh played an important role, in the person of Dr Philip, doctor and philanthropist, who

"saw clearly that the struggle against this redoubtable scourge must inevitably be carried on by social organisation, and with Dr Philip rests the glory of the conception and realisation of a complete equipment against tuberculosis, dating from 1887" (9).

The story of the development of Sanatoria belongs strictly in the nineteenth century, so no more than passing reference will be made to it now. Even today

"Improvement in socio-economic conditions mainly in respect of adequate housing, ventilation and nutrition may still be the most important control measure of all" (10).

Tuberculosis is not today regarded as a hereditary disease, but "increased susceptibility may be inborn....Resistance may also be conditioned by such factors as malnutrition, overwork, and lack of sleep. The risks of infection are much increased by proximity, either from overcrowding of housing, or individual exposure, for example in dentists, and in doctors and nurses working in sanatoria." (11)

Moreover, in treatment of the disease

"Good food is essential....Fresh air, bright surroundings and a cheerful atmosphere should encourage the patient towards recovery" (12).

So much for modern theory and treatment of tuberculosis. Let us now return to the eighteenth century, and see how consumption was regarded then. That it was a severe and frequently hopeless condition is beyond dispute. Among a group of medical prescriptions dated 1661-1702, belonging to the Leven Melville family papers, there is one headed

"for cureing of ane Consumptiōne if it be possible" (13).

Eighteenth-century theories concerning consumption were numerous, diverse and frequently conflicting. It is impossible to neatly summarise them: all that can be done is refer to what is hoped to be a

representative sample. Most of the data given here is taken from Cummins' book on Tuberculosis in History (14).

It was a generally held view (dating back to Hippocrates) that consumption was caused by foul matter descending into the lungs from the head, and there putrifying. Although questioned by some seventeenth century physicians (e.g. Thomas Willis, 1621-1675, who suggested that the disease was admitted to the lungs by the Trachea or the Pneumatic arteries, (15)), this theory continued to hold sway well into the eighteenth century. Sydenham (1624-1689), the great seventeenth century empiricist, did not concern himself greatly with theories of disease - he was more interested in their treatment. He wrote a short work on consumption (*De Phthisi*), in which he expressed the view that the lungs receive the disease from the blood. In his work, he places great emphasis on the value of horse-riding as exercise in the early stages of consumption. The value of open-air exercise was not a new idea in the treatment of consumption ( it was expressed, for instance, by Christopher Bennett, 1617-1655, in his book *Theatri Tabidorum Vestibulum*, (16)), but Sydenham did much to promulgate the idea of horse-riding especially.

We find in the works of seventeenth and eighteenth century medical writers no clear relationship between the King's Evil (scrophulous glands in the neck) and pulmonary tuberculosis, although various diseases, e.g. measles, whooping cough, King's Evil, diabetis, are noted as (causes' of consumption. Richard Morton (1637-1698) noted the enlargement of the

glands that accompanied pulmonary TB, but attributed this to an overloading of chyle (17).

Far the most remarkable theory of consumption to appear in the eighteenth century, was written by a relatively little-known medical figure called Benjamin Marten, who wrote a book entitled "A New Theory of Consumptions, more especially of a Phthisis or Consumption of the Lungs", the second edition of which was published in London in 1722. In this book, with almost preternatural fore-sight, he attributes consumption to

"some certain species of Animalcula or wonderfully minute living creatures that, by their peculiar Shape or disagreeable Parts are inimicable to our Nature; but, however, capable of subsisting in our Juices and Vessles" (18)

He foresaw this theory as an explanation of many contagious diseases:

"we may reasonably imagine that each species of such Animalcula... keep together in vast numbers....as shoales of Fish and swarms of Flying Insects....so we may easily conceive, if the Theory be admitted, how it happens that sometimes a pernicious Disease becomes Endemic".

Applying this concept to pulmonary consumption in particular, Marten suggests:

"It may, therefore, be very likely that by habitual lying in the same bed with a consumptive Patient, constantly eating and drinking with him or by very frequently conversing so nearly as to draw in part of the Breath he emits from the Lungs, a Consumption may be caught by a sound Person....I imagine that slight conversing with a consumptive Patient is seldom or never sufficient to catch the Disease, there being but few if any of those minute Creatures... communicated in slender conversation." (19).

This astonishing anticipation by 260 years of the discovery by Robert Koch of the TB bacillus appears to have been scorned at the time, and little notice was taken of it. Marten appears only in a footnote in Young's historical survey of eighteenth century medical writers on consumptive diseases (20).

The story of the discovery of percussion as a valuable tool in investigating chest disease is a similar instance of neglected genius. The Viennese Leopold Auenbrugger (1722-1809), who invented percussion, was not appreciated until long after his death, but his influence was indirectly felt years later by Laënnec (1781-1826), a pupil of Corvisart. Corvisart (1755-1820) had developed Auenbrugger's technique of percussion and passed it on, in turn, to the man who, in 1818, invented the stethoscope. This invention by Laennec did much to illuminate chest diseases in general, including pulmonary consumption.

If one attempts to summarise the state of eighteenth-century medical theory concerning consumption, it can be said that the source of the disease was regarded as a blend of constitution, heredity and living conditions. The contagious nature of the disease was controversial, and its connection with other forms of tuberculosis was not clearly recognised.

Now let us look at eighteenth century treatment for consumption. It is not surprising to find a wealth of home remedies on offer in eighteenth century Scotland for a disease that was at once so common and so serious. In considering home remedies for consumption, we once

again come up against the problems of nosology. By definition, nearly all home remedies are empirical, and concerned with treating symptoms. Since the symptoms of consumption overlap with those of so many other diseases, including all chest complaints, we cannot ever be sure that we are dealing with specifically consumptive remedies. With this word of caution, let us examine some of the plethora of remedies suggested by the minister John Moncrief in his book 'A Poor Man's Physician'. (21).

For spitting of blood, Moncrief recommends the juice of ten different native plants, viz. Knot-grass (with or without honey), wild thyme with vinegar, parsley, barberries, gooseberries, mouse-ear, middle and lesser consound, silver-weed, horse-tail and oak-tree leaves (see also Table I, page 269 ). Also recommended are sugar of roses, a luke-warm hen's egg, goat's dung in wine or vinegar, starch, flour boiled like glue, cold water and vinegar, bole-armoniac and starch with water, plantain juice and vinegar, and pills of amber. "Tragacantha", we are told, "with the Juice of Plantain, drunk, cureth Ulcers in the Breast"; evidently Moncrief did connect spitting of blood with lung lesions, some of which will have been consumptive in origin.

For "Phthisis, Phthisic or Consumption", another list of common herbs is recommended, again ten in number but with no overlap between these and the herbs recommended for spitting of blood. The following herbs are to be used singly: Pulmonaria, boiled Coleworts, Juniper berries, dry figs and hyssop, made hot, leeks boiled with honey, Marrubium juice, sage, male fluelling, roots of geranium, and chervil "given in supping meats".

Among Moncrief's miscellaneous remedies for consumption are Turpentine, alone or with honey, Broths of Grease or Fat, 'Woman's

Milk sucked out of the Paps', snails boiled in cow's milk, with Tussilago, young cock stones taken in meat, earth of Armenia, Coral-stone, haematites; sugar-candy, raisins and oil of sweet Almonds; a conserve made from dates, honey, long pepper, mace, grains, cloves, nutmeg and ginger.

Another remedy for consumption which Moncrief offers is as follows:

"Take two Handfuls of Clary Leaves, and pickle them clean, and five Yolks of Hens Eggs new laid, make a Tansie thereof, and use it eight mornings together with Nutmegs and Sugar; then take saffron, and dry it on a tile-stone, and grind it very small, and put all these Things together, and fry them in fresh Butter, and let the Patient eat it first in the morning for eight Days together, and it will do him much good." (22)

It is interesting to note that Moncrief makes no extravagant claims for this or any other of his consumption remedies; this is indicative of the gravity with which the disease was regarded. Few spoke of "cures" in relation to consumption.

There is, however, one bold claim made in a manuscript belonging to the Dundas family papers (23). It is contained in a "medical prescription for consumptive cough....spitting blood or a weak decaying constitution". The remedy consists of garden snails, earthworms, pearl barley, spring water with candied Eringo foot stirred in. In time, we are told

"It hath cured many given o'er by Phisicians".

We have already referred (page 245) to an early eighteenth-century prescription for consumption among the Leven Melville papers (24). The

ingredients of this remedy are very hard to decipher, but include the herbs Tussilago and lovage.

Sir John Clerk of Penicuik (1676-1755) has some very interesting reflections and advice on consumption, written some time between 1740 and 1751. He tells us

"The following recipes were written by me after 1740 and most of them have been tried either by my self or friends" (25)

Among the notes that follow are these:

"The Morbus Brittanicus or Consumption always begins with colds".  
He advises against bleeding and vomiting and suggests that

"honey beat up with good wine vinegar is a good quieting medicine...  
Tea made of Apples is one of the best cures I know because it is very diuretic and disposes of the redundancy of the serum in a proper way. How useful this is will appear from the plain demonstration ..that in great colds the urine is very thick and scanty, for the serum or watry parts of the blood instead of passing by the kidneys and ureters into the Blader are thrown off upon the Lungs"

He tells us that diet is important in consumption:

"A great deal of circumspection is necessary as to diet. Those who eat flesh and drink ale, Brandy or Wine are but in a bad way towards a recovery. The patient ought to (take) no liquor but water or now and then a little white wine mixed with it, but of this very small quantities especially if the pulse be Hectick or feaverish, Water plain or on a Toast of wheat Bread is the only Liquor to be used. No flesh at all of any kind except perhaps a wing of chicken.

No flesh - kipper nor indeed any thing that is uneasy to digest. An Egg or two especially when poached in water and eaten with vinegar, makes the best supper and I have found hard roasted Egg of easier digestion than any other thing but all stomachs

are not alike. Apples dressed every way make likewise a fit supper for consumptive people."

He advises against drinking milk at night.

As regards exercise, horse-riding is recommended, and especially riding into some other country:

"If a Scotsman ride into England it will do some service but I advise an Englishman to go abroad.....particularly the south of France."

Sir John Clerk's views on the importance of diet and exercise in consumption owe much to contemporary orthodox medical opinion. Let us look for a moment at the advice offered by William Buchan, in his book 'Domestic Medicine'.

Buchan emphasises the importance of regimen rather than medicine in the treatment of consumption, and states that he knows of no cases in which medicine succeeded where a healthy regimen failed. He stresses the importance of fresh air, exercise (especially on horseback) and a milk and vegetable diet. If this regime is followed in the early stages of consumption, there is good hope of a cure, except when the consumption is due to an "hereditary trait", in which case the outcome is usually fatal. He recognises various illnesses (smallpox, asthma, King's Evil, scurvy) as predisposing factors in consumption, but does not, until the later editions of his book, single out any one of these (see page 263).

Buchan notes the frequent occurrence of consumption in persons aged 15-30, slender chested, and flat-breasted. He relates the incidence

of consumption to a sedentary life and insufficient fresh air. In treatment, he recommends sea voyages, especially to a warmer climate.

Milk, especially asses milk in large quantities, or human milk sucked straight from the breast, he considers of more value in treating consumption than all the *Materia Medica*.

Fruit is recommended as good and cooling. Drink should be light (the use of intoxicating liquor in excess is implicated by Buchan in various diseases, including consumption (26)). The only meat taken should be fowl.

Expectorants may be useful in treating the cough; for example lemon, honey and sugar candy (1774 edition, (27)) or lemon, honey and syrup of poppies (1806 edition, (28)), or gum ammoniac, squills and cardamum seeds (1774 edition, (29)).

Where there is spitting of blood, the use of vulnerary herbs (roses, orches, quince seed, coltsfoot, linseed, sarsaparilla) is recommended. Bitter dietary drinks made from ground ivy, lesser centaury, camomile, water trefoil, may be of value in improving appetite. Where there is an 'impostume' on the breast, the Bark (i.e. Cinchona) should be used. (30).

Buchan's advice, written as it was for laymen, occupies a position intermediate between home and orthodox remedies. If we look now at the strictly orthodox medical treatment for consumption in the eighteenth century, a rather similar picture emerges. Sydenham (1624-1689) set

the tone, as it were, by emphasising the importance of exercise and fresh air. Most medical men were unanimous in recommending milk as an important item of diet for the consumptive, and most were agreed that gentle exercise, especially on horseback, was beneficial. Beyond this, it is difficult to find any unanimity concerning treatment of consumption. Each physician appears to have had his favourite regimen and favourite medicines. We will now consider a brief selection of eighteenth century medical treatments for consumption, in order to illustrate this diversity.

It is relatively difficult to obtain information concerning detailed treatment of patients. One such case history is quoted by Lester King (31). It concerns a young man suffering from consumption. His apothecary wrote to Boerhaave for advice, and Boerhaave in his letter of reply sent dietary advice and the following prescriptions:

<u>Pills</u>	<u>Liquor</u>	<u>Draught</u> (before sleeping)
Gum Ammon.	Agrimon.	Baslam Peruv.
Balsam Peruv.	Betonic.	Ol. Amygdal.
Mastich	Foenic.	Syrup Diacod.
Olibani	Hyssopi	Vitteli ovi
Opponac	Melissae	
Succi Glycyrrh. inspissat.	Veronic.	
Terebinthinae	Virg. Aur.	

The ingredients of these prescriptions are explained in the Table on page 269. The components of the pills are mainly balsams which would have an expectorant action. Liquorice (Glycyrrhiza) was used, and still is,

to soothe coughs \*. The draught, by virtue of the Diacodium (syrup of white poppies, containing opium) would be sedative. The liquor contains several so-called 'bitter' herbs, e.g. Agrimony, which would stimulate appetite, also several, e.g. Virg. Aur., recommended for use in coughs. All in all, one feels the patient would be better off rather than worse for Boerhaave's prescriptions. The apothecary would certainly be financially better off having compounded all these! It is interesting that, in general, the orthodox medical prescriptions are more highly compounded than the home remedies; - this seems to hold true for most of the disease types examined, and presumably indicates a wish to give 'value for money' as it were, on the part of the physician, possibly a wish to impress with the complexity of prescriptions and an assumption that, in the patient's mind, efficacy is directly proportional to the number of ingredients. Domestic remedies, of course, were bound to be simpler if they were to be made up at home.

Dr Archibald Pitcairne (1652-1713), we are told by Young (32), recommended Calomel, Decoction of Woods (e.g. Sarsaparilla) and occasional purges in the treatment of consumption. Dover (33) suggested pills of anise seed, crocus martis (i.e. iron sesquioxide) and Locatelli's Balsam (olive oil, Strasburg Turpentine, yellow wax, red saunders, (34)), together with elixir vitriol, and crude quicksilver, "the best thing in all the world for the lungs, an ounce every morning" (35).

\* Liquorice is described in an anonymous eighteenth-century manuscript pharmacopoeia as "emolient, sweetning and antacid called pectoral.. commended in Pleurics, peripneumonia, coughs, hoarsness, nephritick pains, consumptions....and all diseases from acrimony of the fluids and Tension of the Solids".

Not all physicians were in favour of using balsams in consumption. Buchan, for example, disapproved of balsamic medicines as "every way hurtful to the patient" (37). Wainewright in his 'mechanical Account of the Non-naturals' (fifth edition, 1737, (38)), was also against the use of pectorals and balsamics in consumption. Dr Thomson, writing in 1742 in the Edinburgh Medical Essays, recommends the use of antimonial wine in consumption. Nitre, as a 'refrigerant' is suggested in the writings of various eighteenth century medical writers, e.g. T. Marryat (39). F.B. de Sauvages (40) suggests for phthisis broths of chicken, frogs and crawfish, also

"ground ivy, coltsfoot, whey, millipedes, catechu, the antihectic milk of different kinds, rice and sago, and the waters of Caunterets." Balsams are to be used at a later stage.

The use of opium and of "the Bark" (Cinchona, the source of quinine) was controversial, as was also the value of mineral waters. Cullen (William Cullen, 1710-1790) considered the use of bark improper where there was evidence of haemorrhage. Mercury, balsams and chalybeates (mineral waters), he likewise discouraged. He considered "native acids of vegetables" valuable, blisters applied to the thorax useful, and recommended milk and gentle exercise, and opiates for allaying the cough (41).

M. Stoll, writing in 1777, suggested that a decoction of couch grass and taraxacum, followed by "the lichen" (probably *Lichen islandicus*) proved helpful in the early stages of consumption (42). An anonymous Medical Botany book, dated 1819, describes *Lichen islandicus* as a useful beverage in phthisis (43).

The list of individual eighteenth-century practitioners could be multiplied almost indefinitely, and in proportion the number of articles of *Materia Medica* recommended for use in consumption would grow. The few examples given, scattered throughout the century, will serve to show the bewildering variety of remedies suggested, and the disagreement concerning many of them.

If we examine the *Edinburgh Pharmacopœia* in order to establish the common factors, as it were, in the treatment of consumption, we find the following relevant prescriptions. As will be noticed from their titles, most of them are for general use in chest complaints ("pectoral") rather than specifically for use in consumption. Those listed here are taken from Lewis' translation of the Fourth Edition of the *Edinburgh Pharmacopœia* (44):

1. Tinctura antiphthisica; sugar of lead, vitriol of iron, spirit of wine
2. Elixir pectorale; balsam of Tolu, benzoine, saffron  
"This elixir" claims Lewis "is reduced to a great degree of elegance and simplicity"
3. Decoctum pectorale; stoned raisins of the sun, barley, fat figs, Florentine orrice root, liquorice, leaves of Harts-tongue, flowers of Coltsfoot
4. Syrupus papaveris albi, ...syrup of white poppies, or of meconium, commonly called diacodium. (In a footnote, Lewis recommends opium instead)
5. Syrupus pectoralis Pectoral syrup; roots of Florentine orrice, flowers of coltsfoot, Elecampane, liquorice, True (or, in its stead, English) Maiden-hair, leaves of Ground Ivy, fat figs.  
Of this composition, Lewis remarks "This syrup is much less

compounded than formerly; six of its most exceptionable ingredients are lopt off....nevertheless its ingredients are still too numerous and discordant." (45)

6. Oxymel pectorale; Elecampane roots, Florentine Orrice roots, Gum Ammoniac, Vinegar, Honey
7. Electuarium pectorale; Roses, gum Tragacanth, Benzoine, Balsamic Syrup

It would be of interest to know how far the Pharmacopœia was actually used in practice. Although some of the ingredients of these seven recipes (e.g. Coltsfoot, Gum Ammoniac, balsams, liquorice) also appear in the recommendations of individual physicians, it seems that the eighteenth century medical man was certainly not ruled by the book when writing prescriptions.

The great variety of remedies on offer for consumption in the eighteenth century is in itself interesting, as reflecting the commonness and gravity of the disease, as well as the lack of any one really successful treatment. In attempting to compare home and orthodox remedies, it will be seen that there is much overlap in dietary advice, and also in the individual ingredients of medicines, although the home remedies are in general less compounded.

If we look now at the Table (page 269) of individual ingredients of all the remedies mentioned in this chapter, some of them emerge as evidently valuable in the treatment of any chest complaint. The value of the expectorants such as the balsams, and of the mucilage-containing

plants which would soothe a cough, are self-evident. The frequent mention of coltsfoot in both home and orthodox remedies is remarkable. The tradition of smoking dried coltsfoot for chest complaints goes back, as Sir John Clerk tells us, to the time of Pliny (46).

Some of the plants listed have an antiseptic action (e.g. Thyme); some even contain antibiotics in small amounts (e.g. radish, Couch Grass, Mouse Ear). However, it is doubtful whether any of this great long list of ingredients was really effective in treating Mycobacterium tuberculosis. The best that could be hoped for from eighteenth-century treatment was a healthy regime and diet that would encourage the patient's own resistance to the disease, and raise his spirits! It can truthfully be claimed that most of the herbal ingredients would do good rather than harm: indeed, it is striking looking down the table how many of them have some beneficial effect.

However, any such effect would be marginal, in the treatment of such a serious disease. The only really effective measures against consumption available in the eighteenth, and also in the nineteenth, century were dietary and hygienic. Such factors affected the incidence of the disease, as they still do today.

The tubercle bacillus was isolated by Robert Koch (1843-1919) in 1882, and his work led to the establishment of the B.C.G. vaccine, which has done so much to reduce the incidence of the disease. However, no effective medical treatment for those suffering from the disease was available until the development of the sulphonamide drugs in the 1930's (47).

### SCROFULA, The King's Evil

It has already been pointed out earlier in this chapter (page 248) that the connection between pulmonary tuberculosis, and tuberculosis of the lymph nodes of the neck, was not clearly recognised during the eighteenth century. This is hardly surprising - indeed, one would expect these two types of tuberculosis to be treated as separate diseases until their common cause (*Mycobacterium tuberculosis*) was recognised. The one presents with cough, fever, weight loss; the other with swellings in the neck. What is, perhaps, surprising, is that some relationship between 'scrofula' as it was called, and consumption, was recognised, even before the eighteenth century began.

By and large, scrofula was thought of as a separate disease. The eighteenth-century treatment of scrofula therefore forms a separate subject, showing little or no overlap with the treatment of consumption. In this chapter, the treatment of scrofula will not be discussed, but an attempt will be made to trace the, albeit hesitant, steps by which the connection between scrofula and consumption came to be recognised.

Thomas Young, Fellow of the Royal College of Physicians, and physician to St George's Hospital, published in 1815 'A Practical and Historical Treatise on Consumptive Diseases deduced from Original Observations, and collected from Authors of All Ages'. In this book, Young claims that

"A great majority of consumptions depend on a peculiarity of constitution, of which the first, and sometimes the only effect is the deposition of a morbid and apparently inorganic substance, in ....the lungs.....With respect to the original causes of the

peculiarity of constitution which favours the deposition, they seem to agree almost exactly with the causes of scrofula; of these none are more common than debilitating excesses." (48)

Here, then, Young is suggesting no more than a similarity of constitution between those who fall victim to consumption on the one hand and scrofula on the other. Towards the end of the book, a more direct connection is suggested, based on the observations of J. Russell (49):

"However the frequency of the connexion of consumption with scrofula may have been overrated, it cannot be denied, that many hectic affections originate from scrofulous causes; and the treatment recommended in scrofula must in some measure tend to illustrate the subject of consumption." (50).

Young himself, however, was evidently unconvinced of a direct link between scrofula and pulmonary consumption, since, according to him, the consumptive constitution

"is certainly not identical with a scrofulous constitution...for in North America consumptions are not uncommon, while scrofula is very rare." (51).

Young appeared uncommitted on this issue, despite quoting the work of the French M. Bayle, who noted in 1810, from post mortem examinations, that

"tubercular consumption appears in general to be intimately connected with scrofula" (52).

Even at the beginning of the nineteenth century, it was evidently a controversial point whether or not scrofula and consumption were directly related. Yet if one scans through the historical section of Young's book, it becomes increasingly clear that the clues were there, in the eighteenth century and even before.

Sydenham (1624-1689) apparently recorded that some persons who had recovered from consumption by daily horse-riding, later developed tumours in the neck "not much unlike scrofula" (53).

Myers, in a recent article (54) claims that Sylvius (1614-1672) at Leyden wrote in 1679 that tubercles cause phthisis and equated them with the enlarged glands found in scrofula.

Dr Russell, in 1750, published a treatise on the value of seawater in treatment of swollen glands (55). Reporting on Russell's work, Young tells us

"Several cases are related, in which pulmonary ulcerations were combined with affections decidedly scrofulous: in one instance with swellings in the neck" (56).

Young notes, without comment, the publication by Brillouet in 1759, of a work on the scrophulous nature of consumption (57).

The celebrated Dr Mead, Young tells us

"very properly arranges consumption as a form of hectic fever; and quotes Radcliffe's opinions in confirmation of its usual connexion with scrofula, especially in cold countries" (58).

Further evidence favouring a connection between scrofula and consumption is provided by the Edinburgh Professor Cullen (1710-1790):

"There is probably some noxious acrimony in the purulent matter, perhaps the same that prevails in scrofula: the children of scrofulous parents often dying consumptive, and consumption being often combined with mesenteric decline: the complexion also is of the same description in both diseases." (59).

Far the boldest and clearest eighteenth-century assertion of a

direct link between consumption and scrofula, comes in the 1790's from Edinburgh:-

"The medical professors of EDINBURGH, in the years 1793 and 1794, were disposed to consider consumption as almost universally connected with scrofula; the causes and constitution being nearly always the same; and they argued that the existence of lymphatic glands in the lungs was not necessary to establish this identity, since bones, and other parts, not glandular, are sometimes affected by scrofula, in the common acceptance of the term." (60)

Evidently the Edinburgh medical world, by the end of the eighteenth century, was firmly convinced of a clear relationship between consumption and scrofula. That this was not universally accepted is indicated by Young's lingering doubts, expressed in 1815 (see Page 261).

Some echo of the Edinburgh opinions is found in Buchan's 'Domestic Medicine'. In his edition of 1774 (61), he points out that consumption in some cases is due to "an hereditary trait"; such cases generally prove fatal. In his edition of 1806 (62), Buchan adds, as fatal, those cases due to "a scrophulous habit".

However, Buchan, along with many others, continues to speak of scrofula as quite a separate disease from consumption. Speaking of scrofula, he says:

"The truth is, we know but little either of the nature or cure of this disease" (63).

The medical treatment of scrofula in the eighteenth century shows little or no overlap with that of consumption, and really therefore forms a separate subject. It consisted mainly of externally applied plasters. The practice of royal touching for the scrofula, from which its name of 'King's Evil' was derived, is fully and interestingly described by Crawford in his book "The King's Evil" (64).

It is, perhaps, surprising to learn that this practice, begun in

the tenth century by King Robert the Pious, was used as recently as 1824 by Charles X. As Buchan pointed out in 1806:

"Where reason or medicine fail, superstition always comes in their place" (65).

It was not until the development of the sulphonamide drugs in the 1930's that tuberculosis, as a killer disease in all its forms, began to lose its terrors.

REFERENCES

- (1) Scots Magazine, January 1742, Vol. IV, page 45.
- (2) Young, Thomas, M.D., F.R. & L.S. A Practical and Historical Treatise on Cunsutive Diseases deduced from original observations, and collected from Authors of All Ages. London. Thomas Underwood & John Callow, 1815, page 348.
- (3) Ibid., page 395.
- (4) W. Woolcombe Remarks on the frequency and fatality of different diseases.....London, 1808  
Quoted by Young, op.cit. (2).
- (5) Buchan, William, M.D. Domestic Medicine, third edition, London 1774, page 195.
- (6) Dr Fothergill Med. Obs. Inq. 1769  
Quoted by Young, op.cit. (2), page 261.
- (7) Houston, J.C., C.L. Joiner & J.R. Trounce A Short Textbook of Medicine. Fifth edition, Hodder & Stoughton, London 1975.  
Page 224.
- (8) Turk, D.C. & I.A. Porter A Short Textbook of Medical Microbiology Third edition. English Universitites Press, 1974, London,  
Page 250.
- (9) Sutherland, H.G. (Ed.) The Control and Eradication of Tuberculosis. Green, Edinburgh & London, 1911, page 1.
- (10) Davidson's Principles and Practice of Medicine. Ed. J. MacLeod. Twelfth edition, Livingstone, Edinburgh, 1977. Page 296.
- (11) Op.cit. (7), page 221
- (12) Ibid., page 225
- (13) Leven Melville Papers, Scottish Records Office, Edinburgh  
SRO GD 26/6/207.

- (14) Cummins, Prof. Lyle Tuberculosis in History from the Seventeenth Century to our Own Times. London. Ballière, Tindall & Cox. 1949.
- (15) Ibid., page 17.
- (16) Ibid., page 6.
- (17) Ibid., page 46.
- (18) Ibid., page 57.
- (19) Ibid., page 61.
- (20) Op.cit. (2). Footnote, page 217.
- (21) A Poor Man's Physician, or the Receipts of the Famous John Moncrief of Tippermalloch. Third edition, Edinburgh, 1731.
- (22) Ibid., page 211.
- (23) Dundas Papers, Scottish Records Office, Edinburgh. SRO GD 75.
- (24) Loc.cit. (13).
- (25) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh SRO GD 18/2142.
- (26) Buchan, William, M.D. Domestic Medicine. Glasgow, 1806. Page 105.
- (27) Op.cit. (5), page 197.
- (28) Op.cit. (26), page 176.
- (29) Op.cit. (5), page 196.
- (30) Op.cit. (5), page 198.
- (31) King, Lester S., M.D. The Medical World of the Eighteenth Century. University of Chicago Press. 1958.
- (32) Op.cit. (2), page 218.
- (33) Dover, T. Ancient Physician's Legacy to his Country. Fourth edition, enlarged. 8. London, 1733 quoted by Young, op.cit. (2).

- (34) Op.cit. (26), page 565.
- (35) Op.cit. (33).
- (36) Hamilton Dalrymple Papers, Scottish Records Office, Edinburgh  
Anon. MS. Pharmacopoeia. GD 110/1178.
- (37) Op.cit. (5), page 197.
- (38) Wainewright Mechanical Account of the non-naturals. Fifth  
edition, London, 1737.  
Quoted By Young, op.cit. (2).
- (39) Op.cit. (2), page 250.
- (40) Ibid., page 264.
- (41) Ibid., page 280.
- (42) Ibid., page 282.
- (43) Medical Botany or History of Plants in the Materia Medica of  
the London, Edinburgh and Dublin Pharmacopoeias. London, 1819.  
2 vols. Vol.2, entry number 137.
- (44) The Pharmacopœia of the Royal College of Physicians at Edinburgh.  
Faithfully translated from the fourth edition, with useful notes  
on the Materia Medica.....By W. Lewis, M.B., F.R.S., London,  
John Nourse, 1748.
- (45) Ibid., Section VIII, syrup number 10.
- (46) Loc. cit. (25).
- (47) Guthrie, Douglas A History of Medicine. Nelson, London, 1945  
Page 350.
- (48) Op.cit. (2), page 40.
- (49) Ibid., page 423.
- (50) Ibid., page 423.
- (51) Ibid., page 43.
- (52) Ibid., page 451.

- (53) Ibid., page 188.
- (54) Myers, J.A. Development of Knowledge of Unity of Tuberculosis and of the Portals of Entry of the Tubercle Bacilli. *J.Hist.Med.* 29, 1974, pages 213-228.
- (55) Russell, R. *De tabe glandulari, sive de usu aquae marinae in mortis glandularibus*, Oxford, 1750.  
Quoted by Young, *op.cit.* (2), page 229.
- (56) *Op.cit.* (2), page 229.
- (57) Ibid., page 238, footnote.
- (58) Mead, R. *Monita et Praecepta medica*. London, 1751  
Quoted by Young, *op.cit.* (2), page 230.
- (59) *Op.cit.* (2), page 280.
- (60) Ibid., page 360.
- (61) *Op.cit.* (5), page 189.
- (62) *Op.cit.* (26), page 170.
- (63) Ibid., page 353.
- (64) Crawford, R. *The King's Evil*, Oxford, 1911.
- (65) *Op.cit.* (26), page 353.

List of Ingredients of Consumption Remedies with their modern names and indication of any known relevant pharmacological properties

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Agrimon., Agrimony	<u>Agrimonia eupatoria</u> L.	Vulnerary, astringent (Sch)
Anise seed	<u>Pimpinella anisum</u> L.	Expectorant, spasmolytic (Sch)
Antimonial wine	Potassium antimonyl tartrate	Reflex expectorant (Mart)
Apple tea	<u>Malus sylvestris</u> Miller	
Balsam of Tolu	<u>Myroxylon balsamum</u> , Harms	Stimulant, tonic, expectorant (P)
Barberry	<u>Berberis vulgaris</u> L.	Syrup used for coughs (Sch)
Bark	<u>Cinchona succiruba</u> Pavon and other spp	Tonic, astringent, febrifuge (Sch)
Barley, see Pearl Barley		
Bean meal	<u>Vicia</u> sp or <u>Phaseolus</u> sp	
Benzoine	<u>Styrax tonkinensis</u> Craib and other spp	Expectorant, vulnerary, antiseptic (Sch): A constituent of Friar's Balsam, still in use for coughs
Betonic	<u>Stachys officinalis</u> (L) Trevisan	Astringent (Sch)
Black pepper	<u>Piper nigrum</u> L.	Bactericidal, stimulates digestive secretions (Sch)
Bran	from <u>Triticum aestivum</u>	
Calomel	Mercurous chloride	Less irritant to mucous membranes than other mercury salts (Mart)
Camomile	<u>Matricaria chamomilla</u> L.	Vulnerary, soothing (Sch)
Cardamum	<u>Elettaria cardamomum</u> Maton var. <u>minuscula</u>	Aromatic (P)
Catechu	<u>Acacia catechu</u> Willd	Astringent; checks haemorrhage and excessive mucus discharge (P)
Chervil	<u>Anthriscus cerefolium</u> (L) Hoffm	Stimulant (Sch)
Clary	<u>Salvia sclarea</u> L.	Antispasmodic, balsamic (P)
Cloves	<u>Syzygium aromaticum</u> (L) Merrill and Perry	Aromatic, stomach stimulant, bactericidal (Sch)
Coleworts	? <u>Geum urbanum</u> L.	Astringent, styptic, tonic, febrifuge (P)

Coltsfoot	<u>Tussilago farfara</u> L.	Mucilaginous, expectorant, relieves bronchitis and tracheitis (Sch)
Couch Grass	<u>Agropyron repens</u> (L.) Pal. Beauv.	Antibiotic, mucilaginous, emollient (Sch)
Crocus Martis	Sesquioxide of iron (W)	
Crude Quicksilver	Mercury	Toxic and antibacterial
Dates	<u>Phoenix dactylifera</u> L.	Nutritive
Decoction of Woods	<u>Sarsaparilla</u> q.v. <u>Guaiacum</u> q.v. <u>Sassafras</u> q.v. <u>Liquorice</u> q.v.	
Diacodion	Syrup of white poppies, <u>Papaver somniferum</u> L.	Which contains numerous alkaloids including opium
Dock	<u>Rumex</u> sp	
Elecampane	<u>Inula helenium</u> L.	Expectorant (P): Tonic, soothes cough (Sch)
Elixir vitriol	Sulphuric acid	When diluted, antiseptic and astringent (Mart)
Eringo root	<u>Eryngium campestre</u> L.	Expectorant (P)
Figs	<u>Ficus carica</u> L.	Emollient, demulcent (P)
Florentine Orrice Root	<u>Iris florentina</u> L. and other spp	
Foenic.	<u>Foeniculum vulgare</u> Miller	Expectorant, antispasmodic (Sch)
Galeopsis	<u>Galeopsis tetrahit</u> L.	Astringent, expectorant (Sch)
Geranium	? <u>Geranium robertianum</u> L.	Astringent, sedative (Sch)
Ginger	<u>Zingiber officinale</u> Roscoe	Aromatic, stimulant (Sch)
Gooseberry	<u>Ribes grossularia</u> L.	
Grains	? <u>Aframomum melegneta</u> Rose	Stimulant (P)
Ground Ivy	<u>Glechoma hederaceum</u> L.	Soothes cough, tonic (Sch)
Guaiacum	<u>Guaiacum officinale</u> L.	Diaphoretic (P)
Gum Ammoniacum	<u>Dorema ammoniacum</u> G. Don.	Stimulant, antispasmodic, expectorant (P)
Gum Tragacanth	<u>Astragalus gummifer</u> Labill and other spp	Emollient (P)
Harts tongue	<u>Phyllitis scolopendrium</u> (L) Newm	Mucilaginous (Sch): Pectoral (P): Haemostatic, vulnerary; still used as source of minerals in treatment of pulmonary TB (Sch)

Horse-tail	<u>Equisetum arvense</u> L.	
Hyssop, Hyssopi	<u>Hyssopus officinalis</u> L.	Expectorant, reduces inflammation (Sch)
Juniper	<u>Juniperus communis</u> L.	Stimulates appetite, aids digestion (Sch)
Knot Grass	<u>Polygonum aviculare</u> L.	Astringent, haemostatic (Sch)
Leeks	<u>Allium porrum</u> L.	
Lemon and Honey		Honey soothing
Lesser Centaury	<u>Centaurium minus</u> Moench	Bitter, febrifuge (Sch)
Linseed	<u>Linum usitatissimum</u> L.	Mucilaginous, soothing, pain-relieving (Sch)
Liquorice	<u>Glycyrrhiza glabra</u> L.	Demulcent (P): Expectorant, soothes cough (Sch)
Locatelli's balsam olive oil (q.v.) red saunders (q.v.) Strasburg turpentine and yellow wax		
Long Pepper	<u>Piper chaba</u>	Stimulant and tonic (MB)
Lovage	<u>Levisticum officinale</u> Koch	Expectorant (Sch)
Mace	<u>Myristica fragrans</u> Houtt	Stimulant, aromatic (Sch)
Maidenhair true or English	<u>Adiantum capillus-veneris</u> L.	Pectoral, expectorant, soothes coughs (Sch): used currently in France
Male Fluellin	<u>Kickxia elatine</u> (L.) Dum	Astringent, anti-haemorrhagic (P)
Marrubium	<u>Marrubium vulgare</u> L.	Expectorant (Sch)
Mastich	<u>Pistacia lentiscus</u> L.	
Melissae	<u>Melissa officinalis</u> L.	Sedative, antispasmodic (Sch)
Middle Confound	<u>Ajuga reptans</u> L.	Astringent (P)
Mouse Ear	<u>Hieracium pilosella</u> L.	Antibiotic (Sch): Expectorant (P)
Mustard seed	<u>Sinapis alba</u> L.	Rubefacient when ground (Sch)
Nitre	Potassium nitrate	Used in gargles (Mart)
Nutmeg, see Mace		
Oak tree leaves	<u>Quercus robur</u> L.	Astringent, coagulant (Sch)
Ol. Anygd., see Sweet Almond Oil		
Olibani	= Frankincense from <u>Boswellia carterii</u> and other spp	
Olive oil	<u>Olea europaea</u> L.	Emollient, nutritive (P)

Opoponac.	<u>Opopanax</u> sp	Expectorant, antispasmodic (MB)
Orches	? <u>Alkanna tinctoria</u> Tausch	Emollient (P)
Parsley	<u>Petroselinum crispum</u> (Miller) Turrill	Expectorant (Sch)
Pearl Barley	<u>Hordeum vulgare</u> L.	Mucilaginous, effective in treating bronchitis (Sch)
Peruvian balsam	<u>Myroxylon pereirae</u> Klotsch	Stimulant, expectorant (P)
Plantain	<u>Plantago</u> sp	Expectorant, emollient, vulnerary (Sch)
Pulmonaria	<u>Pulmonaria officinalis</u> L.	Emollient, expectorant, astringent; used for lung infections (Sch)
Quince-seed	<u>Cydonia oblongata</u> Mill	Mucilaginous, demulcent (P)
Radish	<u>Raphanus sativus</u> L.	Antibiotic (Sch)
Raisins	<u>Vitis vinifera</u> L.	
Red Saunders	<u>Pterocarpus santalinus</u> L.	Tonic, astringent (P)
Roses	<u>Rosa</u> sp	Astringent, still used in gargles (Sch)
Saffron	<u>Crocus sativus</u> L.	Stimulates appetite, sedative (Sch)
Sage	<u>Salvia officinalis</u> L.	Stops perspiration, disinfectant (Sch)
Sarsaparilla	<u>Smilax regelii</u> Killip and other spp	Hastens absorption (Sch)
Sassafras	<u>Sassafras variifolium</u> (Salisb) Kuntze	Stimulant, diaphoretic (P)
Silver weed	<u>Potentilla anserina</u> L.	Astringent (P)
Squills	<u>Urginea maritima</u> Baker	Expectorant, soothes mucous surfaces (P)
Succi Glycyrrhiz. inspissat. See liquorice		
Sugar of lead	Lead acetate	Astringent but toxic (Mart)
Sweet Almond Oil	<u>Prunus amygdalus</u> Batsch var. <u>dulcis</u>	Stimulates respiration, aids digestion (Sch)
Syrup Diacod. See Diacodion		
Taraxacum	<u>Taraxacum officinale</u> Weber	Bitter tonic (Sch)
Terebenthinae See Turpentine		
Thyme	<u>Thymus vulgaris</u> L.	Powerful antiseptic, antibiotic (Sch)

Tragacantha	<u>Astragalus gummifer</u> and other spp	Mucilaginous, demulcent (P)
Turpentine oil	from <u>Pinus palustris</u> Mill and other spp	Rubefacient, useful as inhalation for colds and bronchitis (P)
Tussilago, see Coltsfoot		
Veronica	<u>Veronica officinalis</u> L.	Soothes cough (Sch)
Virg. Aur.	<u>Solidago virgaurea</u> L.	Expectorant, soothing, healing (Sch)
Vitriol of iron	Ferrous sulphate	Used to treat anaemia (Mart)
Water trefoil	<u>Menyanthes trifoliata</u>	Tonic, sedative (Sch)

#### Key to Symbols

- Sch = Schanenberg, P. and F. Paris. Guide to Medicinal Plants.  
Lutterworth Press, London, 1977
- Mart = The Extra Pharmacopoeia (Martindale) 23rd Edition, 2 vols.  
Pharmaceutical Press, London, 1952
- P = Potter's New Cyclopoedia of Botanical Drugs and Preparations  
by R.C. Wren, F.L.S. 8th Edition. Health Science Press,  
Devon, 1975
- W = Wootton, A.C. Chronicles of Pharmacy, 2 vols. Macmillan  
London, 1910
- MB = Medical Botany or History of Plants in the Materia Medica  
of the London, Edinburgh and Dublin Pharmacopoeias.  
London, 1819

CHAPTER XI

Arthritic Disease in Scotland in the Eighteenth Century

Judging by the abundance of eighteenth-century home remedies for rheumatism, arthritis, gout and lumbago, these complaints must have been common in eighteenth-century Scotland, as indeed they are today. The terms 'rheum' and 'rheumatism' were evidently used during the eighteenth century fairly loosely to cover joint pains in general, and were not confined to what we would describe today as rheumatoid arthritis. They probably covered also rheumatic fever, osteoarthritis and gout, as well as back pain.

Sinclair, in his 'Statistical Account of Scotland' (1), made some very interesting observations on rheumatism. He suggested that it was little known at the beginning of the eighteenth century, but very common by the end. It was commoner on the wet west coast and on the east coast, and was attributed to wet clothing, damp houses, poor diet, too much liquor and tea, etc. By the close of the eighteenth century, Sinclair tells us, "There is not a parish in Scotland in which it is not now very generally felt". He adds

"There is no subject to which the real philanthropist can direct his attention with a greater prospect of doing good than by endeavouring to alleviate the distresses which rheumatism occasions among so many thousands of his fellow subjects; for it almost universally renders the decline of life a state of increasing misery."

There is no doubt then that rheumatism was common by the end of the century. There is some evidence that throughout the century it was perhaps commoner than Sinclair suggests. Alexander Pennecuik, M.D., in his 'Description of Tweeddale' (1715), includes 'Rheumatisms' among "the diseases that generally afflict the people of this country" (2).

The Edinburgh Bills of Mortality show several deaths from 'Rheumatism' in every year of the eighteenth century. Since it rarely is the cause of death, but is normally a chronic complaint, this could reflect a high incidence of the disease in its chronic state (or, on the other hand, might reflect incorrect diagnoses!) (3).

A general prevalence of rheumatism is suggested by numerous references to it in eighteenth-century diaries. For example, the diary of George Ridpath, minister of Stichel, contains several references to gout and rheumatism. He records, for instance, the death, on September 17th, 1758, of W. Winter:

"He has suffered much and been almost wholly confined for near a twelvemonth past, chiefly from a rheumatick pain in the inside of one of his thighs" (4).

The Revernd John Mill, minister in Shetland, refers in his diary to a "sciatic pain in my left thigh". When he asked for a surgeon, he was told

"though they might know how to dress a green wound yet were probably ignorant of the nature of my trouble" (5).

His landlady recommended a hot bath of earth and hot water baths. The trouble recurred. Quendal suggested he try tar water. He drank this all winter, and believed it cured him.

The Reverend Mr Shaw, minister of Elgin, in an Appendix to 'Pennant's Tour in Scotland' (1774), describes 'rheums' as one of the common ailments in his area, and adds

"Our natural physicians.....for rheums....twice a day bathe the part affected, pouring cold water upon it, and after it is dried, rubbing

it till it is warm, and covering it with plaiding or flannels" (6).

In Sinclair's Statistical Account of Scotland, there are indeed numerous references to rheumatism and to the use of mineral waters to supposedly cure it. The Minister of Comrie records a local drastic remedy for rheumatism in the back. In the parish of Comrie, above a spring dedicated to St Fillan, is a hill with a rock on its summit;

"The rock on the summit is the saint's chair. Those who complain of rheumatism in the back must ascend the hill, sit in the chair, then lie down on their back and be pulled by the legs to the bottom of the hill. This operation is still performed, and reckoned very efficacious." (7).

In Tillicoultry, the case is recorded of a William Hunter who had "an inveterate rheumatism or gout. The poor man had been confined to his bed for a year and a half, having almost entirely lost the use of his limbs. On the evening of Handsel Monday in 1758 some of his neighbours came to make merry with him. Though he could not rise yet he always took his share of the ale as it passed round the company, and in the end became much intoxicated. The consequence was that he had the use of his limbs the next morning, and was able to walk about. He lived more than twenty years after this, and never had the smallest return of his old complaint." (8).

There can be no doubt at all concerning the eighteenth-century prevalence too of gout in its modern sense, even though this was not always clearly distinguished from other forms of rheumatism and arthritis. The numerous references to gout in eighteenth-century literature and history probably reflect partly its particular prevalence among the upper, literate classes, so much so that it was almost regarded as a status

symbol. The number of famous and important personages who have suffered from gout is indeed impressive, and, as Copeman points out (9), gout has indirectly affected the course of history on numerous occasions.

At this point, it will be helpful to briefly define the various forms of arthritis today recognised by the medical profession, before looking in more detail at the eighteenth-century theories of their aetiology, and at the treatment available.

Gout is the most easily defined arthritic disease. Now known to be due to an inborn error of purine metabolism, it is characterised by acute pain and inflammation in one joint, often the big toe. It is hereditary, and rare in females \*. Acute attacks of gout are sometimes precipitated by intemperance. (11).

Rheumatoid arthritis is today defined as

"polyarthritis of unknown aetiology, accompanied by constitutional disturbances" (12).

Copeman, in his fascinating book on the History of Gout and Rheumatic Diseases (13), tells us that rheumatoid arthritis was not clearly distinguished from other forms of arthritic disease during the eighteenth century. Sydenham (1624-1689), distinguished "scorbutic rheumatism" from gout, a category which doubtless included rheumatoid arthritis. William Cullen (1712-1790) was interested in the subject of rheumatism and suggested that chronic rheumatism could be a result of excessive bleeding for acute rheumatism!

\* Queen Anne, however, suffered acutely from gout. Clerk in his memoirs paints the following dismal picture of the Queen during an attack of gout in 1708: she was "ill-dressed, blotted in her countenance, and surrounded with plaisters, cataplasms, and dirty-like rags" (10)

Cullen's interest in the subject of rheumatism led to a spate of academic theses in Edinburgh in the latter years of the eighteenth century and the early nineteenth century.

Osteoarthritis, or, more correctly, osteoarthrosis, is today defined as a chronic degenerative condition of the joints, usually most marked in the weight-bearing joints (14). The disease is usually confined to one or two joints (15). Again, it was not clearly defined as a clinical entity until the nineteenth century, though case-histories occur before this. John Hunter, for instance, described cases in 1743 of "severe rheumatism" involving the hip joint. Dr William Falconer of Bath likewise described hospital admissions between 1785 and 1793 of 609 patients, of whom 278 were suffering from hip-arthritis (16).

Rheumatic fever, in which, as its name suggests, joint pain is usually accompanied by fever, is predominantly a disease of childhood, serious because it often leads to damage to the heart. It is now thought to be caused by a  $\beta$ -haemolytic streptococcus (17). Sydenham, at the end of the seventeenth century, differentiated between acute rheumatism (or rheumatic fever), and gout and chronic rheumatism. Boerhaave (1668-1738) recognised visceral involvement in acute rheumatism, and Cullen (1712-1790) made a special study of acute rheumatism. Dr David Pitcairn of St Bartholomew's Hospital, London, observed in 1788 the connection between heart disease and rheumatic fever (18).

After this brief definition of the main types of arthritic disease, let us now consider the treatment available in eighteenth-century Scotland for these various ailments.

The treatment of gout will be described first, since this was the most clearly defined form of arthritis during the eighteenth century.

Gout-sufferers too poor to afford medical treatment, or too remote from medical centres, had to rely on their own home remedies. Even among the literate classes, many people evidently treated themselves. In his memoirs, Sir John Clerk of Penicuik records how his father

"was at times much afflicted with the Gout and the Gravel, but after his age of 60 he got pretty free of both these distempers, by giving over the use of all other liquids but milk and water." (19).

A similar "cure" for gout is reported in the Scots Magazine for December 1770. Thomas Bridgman, of London, a sufferer for 17 years from gout, claims to have cured himself with a bread and milk diet for 13 months, and chocolate once a day. In a postscript to his letter, he adds

"I drink chocolate to oblige my friends" (20).

The Edinburgh Evening Courant for Thursday 24, 1753, contains an advertisement for

"Collet and Jackson's Oleum Anodynum, or British Balsam of Health; The most effectual medicine in the Universe...for the Cure of Gouts, Rheumatisms, Sciaticas, Dropsy, Stone, Gravel, Fistulas..... 2s6d the Bottle (Wm Mercer's Shop, near the Tron Church) (21).

The Clerk of Penicuik papers (22) include this novel remedy for gout, dated between 1740 and 1751:

"Lay a dog to your feet and pain will pass from your limbs to his. I have heard this lately recommended as a specifick which if it do no good can do no ill"

The note which Clerk adds next is of particular interest in relation to

eighteenth-century thinking concerning gout;

"I believe that this disease is rather the remedy of other latent diseases than one of itself"

Copeman in his book points out that it was thought in the eighteenth century that gout prevented other diseases, and to this extent was desirable. Horace Walpole expresses this view in his Letters: (1833)

"I believe the gout a remedy and not a disease, and being so no wonder there is no medicine for it - nor do I desire to be fully cured of a remedy" (23)

Walpole's words form almost an echo of Sir John Clerk's, although almost a century separates them.

Apart from dietary recommendations, few internal medicines appear among the home remedies for gout in the eighteenth century. One such remedy, however, occurs among the Leven Melville Papers, entitled 'James Gee's Cure for Gout', dated 1768. It consists of Gum Guaiacum and salt nitre, infused in rum (24).

The guaiacum is an interesting component of this remedy, still in use in modern times for rheumatic complaints. Martindale's Extra Pharmacopœia (1952) tells us that Guaiacum, the resin obtained from the wood of Guaiacum officinale and G. sanctum, is "diaphoretic" (i.e. induces sweat), "diuretic and slightly laxative. It has been used in subacute and chronic rheumatism and in inflammatory conditions...combined with purgatives it has been used in gout" (25). Salt nitre, (i.e. sodium nitrate) is diuretic; the use of diuretics has long been considered helpful in the treatment of gout.

The minister John Moncrief, in his book 'A Poor Man's Physician', lists various external specifics for the relief of gout. Those given here are taken from the third edition (1731) of his book (26). Moncrief does not distinguish clearly between gout and rheumatism; in fact he seems to use 'gout' and 'arthritis' as more or less synonymous. One group of remedies is headed

"Of the Pain of the Body called Arthritis, or the Gout"

He does, however, distinguish "Podagra, Gout in the Feet", which evidently corresponds to gout in our modern terminology. For this he prescribes a variety of external applications, for example

"For immoderate pain of the Gout, one Dram of Opium pulverized with saffron, yolks of eggs and oyl of roses, mitigates the Pain and beats back the matter"

The opium in this recipe, if sufficient were absorbed through the skin, would have afforded some real relief from the pain of gout.

Other external remedies given by Moncrief, ranging from goat's dung to hemlock root, include the following:

Moncrief's Remedies specific for Podagra, Gout in the Feet

(All to be externally applied)

"Juice of the Root of Willow-tree anointed with Oyl, is wonderfully profitable"

Hemlock root; Pennyroyal; Althaea root; Plantain leaves or seed; Betony; Mullein; Ashes of Coleworts; Goat's dung; Ants' Eggs.

"A Cauter under the knee is the last Cure".

Hemlock contains five known alkaloids. One of these, coniine, is used

occasionally at the present times for allaying cancer pains (27). Hemlock may well have helped in allaying the pain of gout. The willow tree contains salicylates, the fore-runners of aspirin, which is still the basis of so many anti-rheumatic preparations (28). Even the goat's dung is not as far-fetched a remedy as it sounds to modern ears. Dung, both drunk and applied, was a recognised remedy during the eighteenth century for all forms of rheumatic complaint. It is now known to contain a considerable amount of benzoic acid, a substance which still, today, enters into the composition of some anti-arthritis preparations (e.g. Magnesium benzoate, (29)). Ants' eggs contain formic acid, which has a local anaesthetic effect (30).

These various ingredients, as well as those of other remedies mentioned in this chapter, are identified as far as possible in modern terms in the table on page 301.

Now let us consider what official medical treatment was available for gout, to those who could afford medical assistance in eighteenth-century Scotland. Orthodox medical treatment for gout in the eighteenth century, as pointed out by Copeman (31) and by Schnitker (32) did not differ greatly from the treatment prescribed by the ancient Greeks. It was based on the assumption that the bad humours causing the disease must be expelled by bleeding, purging and vomitics. Opinions varied among different physicians as to the extent to which these procedures should be adopted.

Especially towards the end of the century, dieting, exercise and mineral waters all became fashionable in the treatment of gout. Un-

fortunately there was little that could be done to relieve the excruciating pain of an acute attack of gout. Indeed, it was thought by some to be almost a status symbol, since it often seemed to afflict eminent people. Numerous crowned heads of Europe were afflicted, and numerous politicians. The story of American Independence might well have taken a different course had William Pitt (1708-1778) not been afflicted with gout (33).

It is an unfortunate irony that Sydenham, in many ways so ahead of his times in recommending moderation, was responsible through his opposition to violent purges, for the expunging from the eighteenth-century pharmacopoeia of the one useful item in the treatment of gout, viz Colchicum. The Autumn Crocus, Colchicum autumnale L. , and its near cousins, had been used as violent purges since Greek times. In large doses, Colchicum was found to cause stomach upsets and even poisoning, and its use dropped out of fashion during mediaeval times. Sydenham, having tried it himself, rejected it as too upsetting to the stomach, and his influence was such that it was dropped from the official pharmacopoeia.

Meanwhile, colchicum remained a component of some unofficial remedies for gout, but it was not until the very end of the eighteenth century, when "L'Eau d'Husson" came into vogue, that its value was rediscovered. Early in the nineteenth century, Dr James Want identified the active constituent, viz colchicine, which subsequently became of great importance in the relief of the pain of gout. Monsieur Husson himself marketed the drug in London and in France. Meanwhile, in 1763, Prof. Van Stoerk in Vienna had shown that colchicum could be taken in

small amounts without ill effects, and had prescribed its use in dropsy. However, as Copeman points out, it was the patent L'Eau d'Husson which was responsible for the re-introduction of colchicum in the treatment of gout. (34)

Among the papers of the celebrated Dr Archibald Pitcairn of Edinburgh (1652-1713) are some notes on gout, written in 1705, in which he recommends Arsenici albi (vel flabi) and calcis vitae. He tells us:

"This signifys nothing at all in the Arthritis vaga or Rheumatism; And even in the true Gout it takes away the pain and leaves the weakness. This must be removed by Camphire, the Emplastrum" (35).

(see Table I, page 301).

Other medicines recommended in the eighteenth century for the orthodox medical treatment of gout, included Boerhaave's 'Gout Cordial' of 1728. It consisted of rhubarb, senna, extract of liquorice and aromatics, digested in proof spirit. Cullen (1712-1790) recommended this too, and it was used till well on in the nineteenth century.

In addition, Boerhaave and Cullen both recommended a whey or milk diet and riding on horseback or in a coach. Dr William Cadogan (1711-1799) published in 1771 a "Dissertation on the Gout and on All Chronic Disorders" in which he preached temperance and moderation as the best treatment for gout; a similar doctrine was preached by Dr George Cheyne (1671-1743) of Bath, a pupil of Pitcairn (36).

The following horribly vivid description of a patient suffering from gout appears among the writings of the early eighteenth-century

surgeon Daniel Turner:

"I know an old man, who, although disabled in his feet by this disease for twenty years past, yet sits up in his chair with his feet upon a stool, playing almost every night with his friends at cribbage, when instead of chalk, he scores with a kind of animal fossil dug out of a mine in the joints of his great toes, of which he is never without a supply in a box at hand" (37).

Evidently any cures that this gentleman had tried had been to no avail!

The advice of William Buchan, M.D. (1709-1805) in his book "Domestic Medicine", in a sense occupies a position intermediate between home and orthodox remedies, since, although he himself held an Edinburgh M.D., he was, in his book, offering advice primarily to the layman. The advice quoted here is taken from the 1806 edition of his book (38):

"Stidious persons are very subject to the gout, this painful disease in a great measure proceeds from indigestion, and an obstructed perspiration."

He recommends promoting perspiration, using wine-whey with spirits of hartshorn, or volatile tincture of guiacum. After the acute attack is past, he suggests a purge of rhubarb, and

"stomachic bitters in small wine or ale, as the Peruvian Bark, with cinnamon, Virginian snake-root, and orange-peel."

To avoid further attacks, Buchan advises temperance and exercise, and doses of stomachic bitters

"as tansy or water-trefoil tea, an infusion of gentian and camomile flowers, or a decoction of burdock root".

Bathing was sometimes recommended for gout. The Scots Magazine for January, 1752, contains extracts from "Dr Oliver's Practical essay on the use and abuse of warm bathing in gouty cases" (39).

Among the herbs used in the orthodox treatment of gout, one, namely *Sambucus ebulus*, is of particular interest in that it seems to have been used by medical men and laymen alike in eighteenth-century Scotland. Alexander Pennecuik, in his 'Description of Tweeddale' (1715) refers to *Sambucus Ebulus* Linnaei, Dwarf Elder, Danwort or Walwort, as

"a good medicine for the gout, and scorbutic disorders" (40)

In an anonymous manuscript pharmacopoeia among the Hamilton Dalrymple papers (41), the same plant is referred to

"Nay some reckon them (ointments of *Sambucus Ebulus*) safe even in the Gout tho as I formerly hinted all external applications whatever are dangerous in that disease"

This plant is now known to be diaphoretic (i.e. promotes perspiration) and diuretic (42).

In concluding this section on gout, it seems fair to suggest that little real help or relief from pain could be supplied by either home or orthodox remedies during the eighteenth century. Dietary advice was probably of the greatest value. The only medical article of real value (colchicine) as we have seen, remained largely in abeyance during this period.

In describing the medical treatment in eighteenth-century Scotland for arthritic disease other than gout, it will be simplest to use the term "rheumatism" in its widest sense, to cover rheumatoid arthritis, rheumatic fever, osteoarthritis, as well as back pain and sciatica, since, as has been pointed out above, the eighteenth century clinician rarely distinguished between these different forms of arthritis.

The home remedies for rheumatism to be found in Scottish diaries, kitchen books, etc., are so numerous that it would be tedious to list them all. Their very abundance suggests both that rheumatism was a common problem and that there was no satisfactory treatment for it. Sadly, the situation has not changed drastically today and it is of interest to note that anti-rheumatic drugs are among the most numerous and varied of any drug type on the British market today.

The domestic eighteenth-century remedies for rheumatism that have been collected are tabulated in detail at the end of this chapter (page 301 ), and here they will merely be summarised. Of greatest interest are the remedies to be taken internally, since clearly they will, in general be more likely to produce a marked systemic effect than preparations applied externally.

These include a recipe dated 1721, from a "Mr Lastels", for an infusion to be drunk for rheumatic pains. It consists of Virginia snakeroot, cochineal and rhubarb<sup>(43)</sup> The Virginia snakeroot is of interest in that it receives a mention too from Lewis, the translator of the Edinburgh Pharmacopoeia and one of the chief reformers of the Materia Medica. He refers to the plant as Seneka, Senegaw or rattle-snake root and tells us that it is

"said to have been of extraordinary service in the rheumatism, and other disorders arising from a viscosity of the blood" (44)

The plant is still in use today in herbal remedies for rheumatism.

Some of the remedies given for rheumatism by Moncrief of Tippermalloch in his "Poor Man's Physician" (45) are of particular interest.

Among internal species for "Ischias, the Sciatic", he recommends bark of poplar tree, rind of white poplar; while for arthritis he suggests the beaten leaves of Dwarf Elder (Sambucus ebulus, see also page 289) or of tree elder (Sambucus nigra); the green leaves of the poplar tree bruised and applied "cureth swollen knees". Also, we are told, the

"juice of the root of willow-tree anointed with oyl is wonderfully profitable"

for sore joints.

The story of the use of leaves and barks of poplar and willow is an interesting one. Willow (Salix sp.) is, of course, the original source of salicylates, the basis of aspirin and so many of our present-day analgesics, and still the standard treatment for chronic rheumatism. Although salicylates were not isolated until well on in the nineteenth century, it is evident that leaves and barks containing them were used empirically long before that. Salicylates are present in various species of both willow (Salix sp) and poplar (Populus sp.) (46).

Another tree bark appears in a recipe in "The Compendious Body of Physick", written in 1747 by an English doctor;

"Take the inward bark (that which grows next the wood) of an elder tree, cut or tear it into small bits, and with them loosely plac'd fill about a third part of a bottle; then pour in as much small ale or beer as will fill up the remaining part of the vessel; stop it well, till the liquor be strong of the infusion; and of this let the patient drink a good draught once or twice a day: or if he can well bear it, let him use it as a diet-drink ." (47)

Although described by the author as a "Successful Remedy for a Kind of Rheumatism", this recipe would probably have been far more effective

had either willow or poplar bark been prescribed in lieu of the elder. Elder is described in a modern herbal as "alterative and diuretic" (48), but no mention has been found of any definite analgesic properties.

Copeman points out that the Reverend Edmund Stone reported the effectiveness of willow bark in treatment of acute rheumatism, in 1763, in "An Account of the Success of the Bark of the Willow in the Cure of Agues" (49). According to Copeman, this did not become generally known, at least among the medical profession. However, the above remedies would suggest that various tree barks were in fact used, on the domestic medicine front, throughout the eighteenth century in the treatment of rheumatism.

Another interesting component of some of the rheumatic home remedies is comfrey. For pain of the back, Moncrief recommends

"Take the slimy substance of Comfrey-root in Posset-drink four or five days together" (50).

Comfrey, Symphytum officinale, has relatively recently been shown to contain allantoin, which soothes inflammation and promotes healing (51). It is used by present-day herbalists in treatment of rheumatic joints.

Lady Catherine Stewart, among her home remedies, has a recipe, dated 1730, for preparing a "scarcloath" for wrapping a sore back or any inflammation. It consists of a cloth impregnated with olive oil, popularum wax, oil of chamomyle, oil of roses and red lead.

The popularum (oil prepared from poplar leaves) with its salicylate content, and the chamomyle (Matricaria chamomilla) with its anti-inflammatory

chamazulene, would both be effective components, though to what extent they would be absorbed into the joints is an arguable point. (52)

It was mentioned above (page 290) that internal rheumatism remedies are of particular interest, since they are more likely to produce systemic effects. However, substances applied externally will produce local effects (e.g. a mustard poultice produces a comforting warmth over a sore joint). To what extent the various components are absorbed by the skin, and whether they could reach deep-lying tissues and joints in a concentration sufficient to be effective, is a subject which is still controversial. Many of today's remedies for rheumatism are external; for the most part they produce local anaesthesia, or heat, or both.

It is of interest in this connection that a modern drug developed in the United States for treatment of angina is applied externally to the chest wall (53). It has been shown that corticosteroid cream applied locally, e.g. in treatment of eczema, produces systemic effects (54). Evidently at least some drugs are effectively absorbed through the skin.

Clerk of Penicuik, writing about 1740, recommends a rub of soap and aquavittiae for any pain. (55). Alcohol is a constituent of many present-day pain-relieving embrocations, (e.g. Radian $\beta$ ).

The external applications recommended by Moncrief for rheumatism are amazingly numerous (See table on page 302), which tends to suggest

the commonness of the complaint. As reference to the table (Page 301 ) will show, a high proportion of the plants included in these remedies have either soothing or rubefacient (producing local heat) properties which will have brought some relief to sore joints.

We will examine later (Page 295 ) Buchan's 'official' advice to sufferers from rheumatism, in which he recommends keeping warm, application of plasters, bleeding and use of mineral waters. He adds that

"There are several of our own domestic plants which may be used with advantage in the rheumatism. One of the best is the white mustard... The water-trefoil is likewise of great service in this complaint.. The ground-ivy, camomile, and several other bitters, are also beneficial, and may be used in the same manner. No benefit however is to be expected from these, unless they be taken for a considerable time.....Want of perseverance in the use of medicines is one reason why chronic diseases are so seldom cured." (56).

Buchan notes the common association between scurvy and rheumatic complaints (cf Sydenham's category of "scorbutic rheumatism", see page 280). In this connection, it is of interest that several of John Moncrief's remedies are excellent antiscorbutic agents, e.g. Rose-hip conserve which he recommends for rheumatic pains of the whole body (See Table I, page 301 ). Evidently during the eighteenth century there was a general confusion between rheumatism and scurvy, hardly surprising in view of the fact that advanced scurvy is accompanied by joint pain (see Chapter III).

It is interesting that many of the herbs traditionally used in treatment of rheumatism are still in use today among herbalists, and

among some of the makers of patent medicines. In a survey of "Secret Remedies" published in 1909 by the British Medical Association (57), among the anti-rheumatic ingredients mentioned are colchicum, guaiacum, betony, gentian and camomile. As will be seen from a glance at Table I, (page 301 ), all these herbs were in use in the treatment of rheumatism during the eighteenth century.

Now let us see what the medical profession had to offer to sufferers from rheumatism in eighteenth-century Scotland. The causes of rheumatism were thought to include chill and trauma. Orthodox medical treatment included exercise (which Sydenham, for example recommended) and application of heat. Copeman tells us that rest was not in general prescribed until the nineteenth century (58).

Other medical remedies included the so-called "Chelsea Pensioner Electuary", composed of guaiacum, rhubarb and sulphur. Oleum Philosophorum, heated powdered bricks and olive oil were used internally and externally. Dr Rutherford of Edinburgh apparently recommended a poultice of dung (cf Moncrief's suggestion of goat's dung, see pages 284, 285) for sufferers from rheumatism! (59).

It is difficult to determine which of the numerous plasters listed in the official pharmacopœia were used in the treatment of rheumatism, since their specific uses are not indicated. Buchan in his 'Domestic Medicine' recommends the use of a Warm Plaster for obstinate rheumatic pains. This is composed of gum plaster one ounce, and blistering plaster 2 drachms, a recipe identical to the Warm Plaster listed by Lewis in the Hospital Dispensatory (60).

The Fourth Edition of the Edinburgh Pharmacopœia gives as the

ingredients of Blistering Plaster: melilot plaster, Burgundy Pitch, Venice Turpentine and Cantharides (61). There was evidently some variation in the composition of such preparations. Buchan gives as the constituents of Blistering Plaster: Venice Turpentine, yellow wax, Spanish flies (=Cantharides) and mustard.

Buchan's recipe for gum plaster consists of litharge, olive oil, gum ammoniac, galbanum and Venice Turpentine (62). There does not appear to be an exact equivalent of this preparation in Lewis' translation of the Edinburgh Pharmacopoeia. The nearest seems to be 'Emplastrum diachylon cum gummi', consisting of oil of mucilages, litharge and gums (63).

When it is recalled that Venice Turpentine itself has no fewer than 64 ingredients (64), it will be appreciated that the simple-sounding Warm Plaster was in fact a vastly complicated remedy, and not one likely to be compounded at home.

Acute attacks of rheumatism (including what we would today term rheumatic fever) were treated by the medical profession in the eighteenth century by bleeding and the use of Peruvian bark (Cinchona sp., the source of quinine) (65).

The picture that emerges of arthritic complaints in Scotland in the eighteenth century can be summarised as follows. Gout or podagra was clearly defined as a clinical entity at least by some. Treatment consisted of bleeding, exercise, temperance, dieting and the use of purgatives. Colchicine was used incidentally in folk remedies, but its great clinical value was not realised until the nineteenth century.

All other forms of rheumatic complaint tended to be lumped together, although sometimes sciatica and lumbago were distinguished, and in some instances rheumatic fever, described as acute rheumatism, was distinguished from chronic rheumatism. Official treatment consisted largely of application of plasters with a bewildering variety of ingredients, most of them probably only marginally effective (with the exception of opium which would be anodyne). Domestic remedies, though very diverse, tended to be simpler, and did include some, such as willow bark, which would have been of real value: however, it seems unlikely that their full value was recognised at the time.

REFERENCES

- (1) Sinclair, Sir J. Analysis of the Statistical Account of Scotland. Edinburgh, Constable, 1825  
quoted by Ferguson, Thomas in The Dawn of Scottish Social Welfare, Nelson, London, 1948, page 80.
- (2) Alexander Pennecuik, M.D. Description of Tweeddale, 1715. Reprinted Leith, 1815. Page 81.
- (3) Scots Magazine, Vol I- Vol XL, 1739-1800, Bills of Mortality.
- (4) Diary of George Ridpath, Minister of Stichel 1755-1761. Edited with Notes and Introduction by Sir James Balfour Paul. Edinburgh Constable, for Scottish History Society, 1922, page 201.
- (5) The Diary of the Reverend John Mill., minister of the Parishes of Dunrossness, Sandwick and Cunningsburgh in Shetland 1740-1803. Edited by Gilbert Goudie. Edinburgh University Press. Constable Scottish History Society, 1809. Page 4.
- (6) Shaw, Rev. Mr., in Appendix II of Pennant, A Tour in Scotland. Third edition, Warrington, 1774.
- (7) Sinclair, Sir J. Statistical Account. Comrie xi, 181  
quoted in  
Murray, James Life in Scotland a Hundred Years Ago as reflected in the Old Statistical Account 1791-1799. Paisley. Alex Gardner. 1900. Page 165.
- (8) Ibid., Tillicoultry, xv, 201,  
quoted by Murray, op.cit. (7), page 173.
- (9) Copeman, W.S.C. A Short History of the Gout and the Rheumatic Diseases. Univeristy of California Press, 1964.
- (10) Memoirs of the Life of Sir John Clerk of Penicuik, Baronet, Baron of the Exchequer. Extracted by Himself from His Own Journals 1676-1755. Edited from the Manuscript in Penicuik House with an Introduction and Notes, by John ,. Gray. Edinburgh. Scottish History Society Vol. XIII, 1892. Page 72.

- (11) Davidson's Principles and Practice of Medicine. Ed. J. Macleod. Livingstone, Edinburgh, twelfth edition, 1977. Page 649.
- (12) Thomson, W.A.R. Thomson's Concise Medical Dictionary. Churchill Livingstone, Edinburgh, 1973. Page 20.
- (13) Op.cit. (9)
- (14) Op.cit. (12), page 229.
- (15) Op.cit. (11), page 649.
- (16) Phil.Trans.Roy.Soc., 1743, quoted by Copeman, op.cit. (9), page 190.
- (17) Op.cit. (11), page 198
- (18) Op.cit. (9)
- (19) Op.cit. (10), page 8.
- (20) Scots Magazine, Vol XXXII, December 1770, page 640.
- (21) Edinburgh Evening Courant, Thursday May 24, 1753.
- (22) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh SRO GD 18/2142.
- (23) Op.cit. (9) page 94.
- (24) Leven & Melville Papers, Scottish Records Office, Edinburgh SRO GD 26/6/207.
- (25) The Extra Pharmacopœia (Martindale). Twenty-third Edition. Volume I, London, The Pharmaceutical Press, 1952, page 413.
- (26) The Poor Man's Physician, or the Receipts of the Famous John Moncrief of Tippermalloch. Third edition, Edinburgh, Heriot, 1731.
- (27) Schauenberg, P. & F. Paris Guide to Medicinal Plants. Lutterworth Press, London, 1977. Page 32.
- (28) Nelson, A. Medical Botany. Livingstone, Edinburgh, 1951, Page 427.
- (29) Op.cit. (25), page 20.
- (30) Ibid., page 550.

- (31) Op.cit. (9)
- (32) Schnittker, Maurice A. A History of Gout. Bull.Inst.Hist.Med. 4, 1936, pages 89-120.
- (33) Op.cit. (9)
- (34) Ibid.
- (35) Pitcairne Papers 1701-1708. Edinburgh Univeristy Library Manuscript Department. Dc.1.62
- (36) Op.cit. (9).
- (37) Hare, P.J. Our Credulous Countryman. Inaugural Lecture, Edinburgh University, November 1968. Constable, 1968.
- (38) Buchan, William Domestic Medicine. Glasgow, Stephen Young, 1806. Pages 70, 339, 346.
- (39) Scots Magazine, Vol. XIV, January 1752, page 41.
- (40) Op.cit. (2), page 266, footnote.
- (41) Hamilton Dalrymple Papers, Scottish Records Office, Edinburgh SRO GD 110/1178.
- (42) Op.cit. (27), page 180.
- (43) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh. SRO GD 18/2125.
- (44) The Pharmacopœia of the Royal College of Physicians at Edinburgh. Faithfully translated from the Fourth Edition, by W.Lewis, M.B., F.R.S. London, Nourse, 1748. Page 63.
- (45) Op.cit. (26)
- (46) Op.cit. (28), page 427.
- (47) A Compendious Body of Physick...being the Commonplace Book of a Late Able Physician....Third edition, London, J. Osborn, 1747 Part II of Family Magazine, 1747. Page 219.
- (48) Wren, R.C. Potter's New Cyclopaedia of Botanical Drugs and Preparations. Health Science Press, Devon, 1975, page 111.

- (49) Stone, Rev. Edmund. An Account of the Success of the Bark of the Willow in the Cure of Agues. Phil.Trans.Roy.Soc. 53, 1763, pages 195-200  
Quoted by Copeman, op.cit. (9)
- (50) Op.cit. (26)
- (51) MacAlister, Dr Charles. Narrative of an Investigation Concerning an Ancient Medicinal Remedy and its Modern Utilities.  
Quoted by Kordel, L. in Natural Folk Remedies, W.H. Allen, London, 1975, page 211.
- (52) Broughton Cally Papers, Scottish Records Office, Edinburgh.  
SRO GD 10/911.
- (53) Hardarson, T., Henning, H. & R.A. O'Rourke. Prolonged salutary effect of isosorbide and nitroglycerin ointment on left ventricular function. Am.J.Card. 40, 1977, pages 90-98.
- (54) Ronald H. Girdwood (Ed.) Clinical Pharmacology, 24th edition, Balliere Tindall, London, 1979, page 544.
- (55) Loc.cit. (21)
- (56) Op.cit. (38), page 346.
- (57) Secret Remedies. What they Cost and what they Contain. Based on Analyses made for the British Medical Association. London, BMA, 1909.
- (58) Op.cit. (9)
- (59) Wootton, A.C. Chronicles of Pharmacy. 2 vols. Macmillan, London, 1910. Vol II, page 8.
- (60) Op.cit. (44), page 348.
- (61) Ibid. Section XVIII, plaster no. 10.
- (62) Op.cit. (38), page 598.
- (63) Op.cit. (44), Section XVIII, plaster no. 8.
- (64) Op.cit. (59), Vol II, page 38.
- (65) Op.cit. (9)

Name of Ingredient (modern name in brackets)	18th century usage	Assessment of value in light of modern knowledge	Ref.
Virginia snakeroot ( <u>Aristolochia serpentina</u> L.)	Infusion drunk for rheumatic pains	Anodyne (P)	(1)
Cochineal (from crushed insect)			
Rhubarb ( <u>Rheum rhabarbarum</u> L.)		Purgative and tonic (Sch)	
Olive oil (from <u>Olea europaea</u> L.)	"Scarcloath" for wrapping sore back or any inflammation	Emollient (P)	(2)
Popularum (from <u>Populus</u> sp)		Contains pain-killing salicylate derivatives (Sch)	
Wax			
Oil of chamomyle ( <u>Anthemis nobilis</u> L.)		Contains anti- inflammatory chamazulene (Sch)	
Oil of Roses ( <u>Rosa</u> sp)			
Red lead (Lead oxide)		Used externally, lead salts are soothing and astringent (Mart)	
Gum Guaiacum (from <u>Guaiacum officinale</u> L. and <u>G. sanctum</u> L.)	Infused in rum as a cure for gout	Diaphoretic, diuretic and slightly laxative (Mart)	
Sal nitre (Potassium nitrate)		Diuretic (Mart)	
Bread and milk	Diet for gout		(3)
Milk and water	Diet drink for gout		(4)
Hot baths Earth bath	For "sciatica pain"		(5)
Tar water (from <u>Pinus</u> sp)	Drink		
Cold water	For bathing sore joints	"Hydrotherapy" still in use	(6)

Name of Ingredient (modern name in brackets)	18th century usage	Assessment of value in light of modern knowledge	Ref.
Soap Aquavitae (distilled spirits of wine)	Used as a rub for any pain	Alcohol still used in many liniments for local pain (Mart)	(7)
Blistering plaster (the version in the Edinburgh Pharmacopoeia includes nearly 100 ingredients)	"Infallible cure for shyatick"	Effectiveness impossible to assess. Opium one actively analgesic ingredient	(7)
Potato ( <i>Solanum tuberosum</i> L.)	Water in which potatoes have been boiled used as bath	Juice from tuber spasmolytic (Sch)	(8)

Moncrief's Remedies for Arthritis [Ref.(9)]

Squill vinegar ( <i>Urginea maritima</i> Baker)		Diuretic (P)
Wine of Thyme ( <i>Thymus</i> sp)		Powerful antiseptic (Sch)
Venice Turpentine (very numerous ingredients, including opium)		Opium analgesic
Juice of Ground Pine ( <i>Ajuga chamaepitys</i> , Schreb)		Diuretic (P)
Conserve of acorns ( <i>Quercus</i> sp)	"for pains of Nerves and Joynts" all to be taken internally	Astringent (P)
Conserve of Rosemary ( <i>Rosmarinus officinalis</i> L.)		Stimulant, antispasmodic (Sch)
Conserve of Betony ( <i>Stachys officinalis</i> (L.) Trevisan)		Astringent (Sch)
Conserve of Balm ( <i>Melissa officinalis</i> L.)		Sedative, diaphoretic (Sch)
Conserve of Sage ( <i>Salvia officinalis</i> L.)		Spasmolytic, stimulating, stops perspiration (Sch)
Oyl of Nutmegs ( <i>Myristica fragrans</i> Houtt)		Stimulant, narcotic (Sch)
Goat's Dung in vinegar (contains benzoic acid)	Internal specifics for "Ischias, the Sciatic"	Magnesium benzoate still used in anti-arthritis preparations (Mart)
Juice of Plantain ( <i>Plantago</i> sp)		Diuretic (Sch)

/ ..

Name of Ingredient (modern name in brackets)	18th century usage	Assessment of value in light of modern Knowledge	Ref. 9
/ ..			
Bark of poplar tree ( <u>Populus</u> sp) Bark of white poplar ( <u>Populus</u> sp)	Internal specifics for "Ischias, the Sciatic"	contain salicylate derivatives, analgesic (Sch)	
Juice of Broom ( <u>Cytisus scoparius</u> (L.) Link)		Cardiotonic, diuretic (Sch)	
Burdock root ( <u>Arctium lappa</u> L.)	Drunk for arthritis	Diuretic, diaphoretic (Sch)	
Garlick cloves ( <u>Allium sativum</u> L.)	Swallowed as a "great preservative" against arthritis	Diuretic, rich in Vitamin A (Sch)	
Rose-hip conserve	Taken morning and evening "for rheumatic pains of the whole body"	Rich in Vitamin C. Tonic, stimulant, seeds diuretic (Sch)	
Comfrey-root ( <u>Symphytum officinale</u> L.)	Take the slimy substance of Comfrey- root in Posset-drink, 4 or 5 days together	Emollient, sedative, aids healing (Sch)	
<u>or</u>			
Knot grass ( <u>Polygonum aviculare</u> L.)	Shredded knot grass mixed with butter. Both used for back pain	Astringent, diuretic, vulnerary (Sch)	
Oyl of roses, wax and vinegar	Also for back pain		
Saffron ( <u>Crocus sativus</u> L.) mixed with bread, milk, egg- yolk, salt, soot, egg-white		Sedative, toxic (Sch)	
Slocken lime in urine	external applications for sore joints		
Vinegar and lime			
Bran, salt and soap			
Aquavitae, butter, bean-meal		Alcohol (aquavitae) still a component of many liniments	

Name of Ingredient (modern name in brackets)	18th century usage	Assessment of value in light of modern knowledge	Ref.9
Dwarf Elder ( <u>Sambucus ebulus</u> L.) or Tree Elder ( <u>Sambucus nigra</u> L.)	Beaten leaves applied for arthritis	Diuretic, diaphoretic (Sch)  Diaphoretic, anti- rheumatismal (Sch)	
Poplar tree ( <u>Populus</u> sp)	Green leaves, bruised and applied "cureth swollen knees"	Contains salicylate- derivatives, analgesic (Sch)	
Frankincense ( <u>Boswellia carterii</u> ) with juice of Sea-Green and vinegar			
Mugwort ( <u>Artemisia vulgaris</u> L.)		Emollient (P)	
Bees-wax, "Nolt-feet oyl", gums, mixed with Rosin (from <u>Pinus</u> <u>palustris</u> L.) Olibanum (= Frankincense, see above)		Mildly rubefacient (Mart)	
White Lead (basic lead carbonate) + Litharge of gold (lead oxide)	All applied externally to sore joints	Lead salts soothing, astringent (Mart)	
Milk, boar's grease, ivy ( <u>Hedera helix</u> L.) and oatmeal ( <u>Avena sativa</u> L.)		Stimulant (Sch)	
Oyl of Turpentine ( <u>Pinus</u> spp)		Rubefacient, diuretic (P)	
Burnt ashes of beans, swines-grease and seawater Althaea root ( <u>Althaea</u> <u>officinalis</u> L.)		Emollient and soothing	
Lily roots and honey Bread, honey, vinegar with Mustard-seed <u>Brassica nigra</u> (L.) Koch and Figs ( <u>Ficus carica</u> L.)		Rubefacient (Sch) Emollient (P)	
Ribwort plantain ( <u>Plantago</u> <u>lanceolata</u> L.) with wax and olive oil		Diuretic (Sch) Olive oil emollient (P)	

Name of Ingredient (modern name in brackets)	18th century usage	Assessment of value in light of modern knowledge	Ref. 9
Water in which ants and their eggs have been boiled		Contains formic acid Produces local aneesthetic effect on skin (Mart)	
Garden cresses ( <u>Lepidium sativum</u> L.)			
Swine's scam, egg-white quicksilver, roots of sharp and red-pointed Dock ( <u>Rumex</u> sp)	All applied externally to sore joints		
Salt, flour, honey and red wine			
Old cheese and oil			
Salt and allum mixed with Onions ( <u>Allium cepa</u> L.) Euphorbium ( <u>Euphorbium</u> sp.) and Laurel oyl ( <u>Laurus</u> <u>nobilis</u> L.)		Diuretic (Sch) Blistering (P) Still used for rheumatism (Sch)	
Willow-tree root ( <u>Salix</u> sp)	"wonderfully profitable" for sore joints	Contains salicine and salicoside (analgesic) Tonic and anti-rheumatismal (Sch)	
Hemlock root ( <u>Conium maculatum</u> L.)		Contains coniine and other alkaloids: occasionally used for cancer pains (Sch)	
Pennyroyal ( <u>Mentha pulegium</u> L.)		Diaphoretic (P)	
Althaea root ( <u>Althaea officinalis</u> L.)		Emollient, soothing (P)	
Plantain leaves or seed ( <u>Plantago</u> sp)		Diuretic (Sch)	
Betony ( <u>Stachys officinalis</u> (L.) Trevisan)	external specifics for "Podagra" or "Gout in the Feet"	Astringent (Sch)	
Mullein ( <u>Verbascum</u> sp)		Soothing (Sch)	
Ashes of Coleworts ( <u>Geum urbanum</u> L.)		Tonic, astringent (Sch)	
Hare's blood			
Bread crumbs and juice of house-leek ( <u>Sempervivum</u> <u>tectorum</u> L.)		Astringent, cooling (P)	
Opium mixed with saffron, eggs, roses		Opium analgesic	

Name of Ingredient (modern name in brackets)	18th century usage	Assessment of value in light of modern knowledge	Ref.
Calamint ( <u>Calaminta officinalis</u> Moench)		Diaphoretic (P)	(9)
Costmary			
Elecampane ( <u>Inula helenium</u> L.)		Tonic, diuretic (Sch)	
Cresses ( <u>Lepidium</u> sp), meal and vinegar			
Bean meal and egg yolk	External specifics		
Mouse-ear ( <u>Hieracium pilosella</u> L.)	for "Ischias, the Sciatic"	Astringent, tonic (P)	
Tussilago ( <u>Tussilago farfara</u> L.)		Mucilaginous, soothing	
Hot Gigot of mutton			
Gall of a goat			
Fat of Fishes		Rich in Vitamins A and D now thought to be beneficial in rheumatism	
Cantharides and old sour leaven			

\* \* \* \* \*

Orthodox Medical Remedies for Arthritis

Warm Plaster, very numerous ingredients (c.100) including Mustard ( <u>Brassica nigra</u> L.) Litharge (lead oxide) Olive oil ( <u>Olea europaea</u> L.) Gum Ammoniac ( <u>Dorema ammoniacum</u> G.Don) Galbanum ( <u>Ferula</u> spp)	Externally applied to sore joints		(10)
Opium		Rubefacient (P) Soothing, astringent (Mart) Emollient (P) Stimulant (P) Stimulant, reduces swellings (P) Analgesic	

Name of Ingredient (modern name in brackets)	18th century usage	Assessment of value in light of modern knowledge	Ref.
Water trefoil ( <u>Menyanthes trifoliata</u> L.)		Tonic, sedative (Sch)	(10)
White mustard ( <u>Sinapis alba</u> L.)		Seeds laxative, rube-facient (Sch)	(10)
Ground Ivy ( <u>Glechoma hederaceum</u> L.)	Infusions to be drunk for	Tonic (Sch)	(10)
Elder tree bark ( <u>Sambucus nigra</u> L.)	rheumatism	Diaphoretic, anti- rheumatismal (Sch)	(11)
Seneka, Senegaw ( <u>Aristolochia serpentaria</u> L.)		Anodyne (P)	(12)
Sambucus ebulus ( <u>Sambucus ebulus</u> L.)		Diuretic, diaphoretic (Sch)	(13) and (14)
Dung	Infusion drunk for rheumatism, also used in poultices	Contains benzoic acid still used in anti- arthritic preparations (Mart)	(15)

#### Key to Symbols used in Table

- P = Potter's New Cyclopaedia of Botanic Drugs and Preparations  
by R.C. Wren, 8th Edition. Health Science Press, Devon, 1975.
- Sch = Schanenberg, P. and F. Paris. Guide to Medicinal Plants.  
Lutterworth Press, London, 1977
- Mart = The Extra Pharmacopoeia (Martindale) 23rd Edition, 2 vols.  
Pharmaceutical Press, London, 1952

#### References

- (1) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh  
SRO GD 18/2125
- (2) Broughton Cally Papers, Scottish Records Office, Edinburgh  
SRO GD 10/911 circa 1730.
- (3) Scots Magazine, Vol. XXXII, December 1770, page 640.
- (4) Memoirs of the Life of Sir John Clerk of Penicuik, Baronet, Baron  
of the Exchequer ... Edited by John M. Gray. Edinburgh, Scottish  
History Society, Vol. XIII, 1892, page 8.

- (5) The Diary of the Reverend John Mill minister of the Parishes of Dunrossness Sandwick and Cunningsburgh in Shetland 1740-1803, Ed. Gilbert Goudie. Edinburgh University Press, Constable, Scottish History Society, 1889.
- (6) Rev. Mr. Shaw, minister of Elgin: Of Elgin and the Shire of Murray Appendix II of Pennant's Tour in Scotland, 3rd Edition, Warrington, 1774, page 272.
- (7) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh SRO GD 18/2142
- (8) Logan Home Papers, Scottish Records Office, Edinburgh SRO GD 1/384/26 Late eighteenth century.
- (9) A Poor Man's Physician or the Receipts of the Famous John Moncrief of Tippermalloch, 3rd Edition, Edinburgh, 1731.
- (10) Buchan, W. Domestic Medicine, Glasgow, 1806. Chapter XXXVIII, pp. 337 ff.
- (11) A Compendious Body of Physich .. Third Edition, London 1747 (Anon.) Page 219.
- (12) The Pharmacopoeia of the Royal College of Physicians at Edinburgh ... translated from the Fourth Edition .. by W. Lewis. London, John Nourse, 1748. Page 63.
- (13) Alexander Pennecuik, M.D. Description of Tweeddale, 1715. Reprinted Leith, 1815.
- (14) Hamilton Dalrymple Papers. Anonymous M.S. SRO GD 110/1178
- (15) Wootten, A.C. Chronicles of Pharmacy. Macmillan, London, 1910.

CHAPTER XII

The foregoing chapters represent an attempt to present a selection of the home remedies used in treatment of some common ailments in eighteenth-century Scotland. They illustrate a number of points of historical and social interest.

We have seen in Chapter I how social conditions in early eighteenth-century Scotland were such that, for the majority of the population, there was no alternative to home remedies in times of illness. The picture which Trevelyan paints of life in rural Scotland at this time, is dismal indeed. Even the squirearchy were only one-tenth as rich as their contemporaries in England. Peasant housing was extremely primitive, consisting often of one room, with an earth floor, and the cattle at one end:

"The family often sat on stones or heaps of turf round the fire of peat, whence the smoke made partial escape through a hole in the thatch overhead. Since they worked on an ill-drained soil, only half reclaimed from marsh and rushes, and came back to a damp home in wet clothes for which they seldom had any change, it followed that rheumatism and ague plagued and shortened their lives."

Agricultural methods were very primitive, the run-rig system being maintained till late in the century. Educational standards were low:

"In Queen Anne's reign many parishes had no school at all....In Fife, at the end of the Queen's reign, only two men out of three could sign their names, and one woman out of twelve, while in Galloway few of the people could read" (1)

Later in the century, the picture began to improve, though more slowly in the Highlands than in the lowlands. As late as 1769, Pennant describes Invercauld life in these terms:

"The houses of the common people in these parts are shocking to humanity, formed of loose stones, and covered with clods, which they call devish, or with heath, broom, or branches of fir; they look, at a distance, like so many black mole-hills. The inhabitants live very poorly, on oatmeal, barley-cakes, and potatoes; their drink whisky sweetened with honey" (2)

It is against this background of poverty and illiteracy that we must consider early eighteenth-century home remedies. Trevelyan claims that

"In the absence of proper doctors for the countryside, popular medicine was traditional, and it was sometimes hard to distinguish it from a popular form of witchcraft".

However, he concedes that

"there were wise men and women who helped human happiness, as well as warlocks and witches who hampered it" (3).

To my mind, this gives a false picture of home remedies in eighteenth century Scotland. One finds in the literature frequent attempts to identify folk medicine at this time with superstition and witchcraft. While these were undoubtedly aspects of folk medicine, they were secondary and incidental to it. The weird customs, for instance, quoted by the Rev. Walter Gregor (4) undoubtedly existed in the highlands, but they represent one facet only of folk medicine. A more accurate and balanced view of rural medicine is provided by McConaghey (5), who maintains that

"In considering the medical needs of the country folk at all periods of history this faith in simple, homely remedies and in the virtues of magic must always be borne in mind."

It should surely come as no surprise to find little attention paid in the literature of home remedies to theories of disease. By definition, home remedies were purely traditional and empirical. Yet Blake (6) reports with apparent surprise his findings from seventeenth and eighteenth-century collections of recipes

"Almost never do we find any general discussion of a theory of disease, of symptoms, or of the rationale for treatment."

Yet it seems abundantly clear that the levels of poverty and illiteracy were such that in rural areas in the eighteenth century no-one would be concerned with medical theory. In rural areas, McConaghey tells us, people's outlook

"is fatalistic and they accept with stoicism situations and illnesses which their neighbours in the town find hard to meet" (7).

Even in the cities and among the medical profession, only a small minority were concerned with theory. As Lester King points out (8), if one looks at eighteenth-century manuscripts one soon discovers a realistic picture of eighteenth-century medical practice:

"There were concrete everyday problems which had to be met. Medical theory was not important. Physiologic and pathologic observations were not very relevant. Instead, there was a frankly empirical practice, and most patients got well, even as they do today".

If one attempts to compare home and orthodox remedies in eighteenth-century Scotland, it soon becomes evident that there is considerable overlap between the two. This is very clear if one glances at the collections of remedies in the foregoing chapters. This discovery should come as no surprise when one reflects that the roots of all eighteenth-

century Scottish medicine were the same; namely, the largely herbal remedies of the ancients, modified somewhat in their passage through the various mediaeval herbals, and supplemented from time to time with new additions.

Hultin (9) has pointed out the overlap between home and orthodox remedies in eighteenth-century England, while Rowell (10) found the same situation in eighteenth-century Russia.

One possibly surprising difference has emerged from these present studies. In general, the folk remedies contained fewer ingredients than the orthodox ones. It is not fair to state, as does Blake(11), that eighteenth-century domestic remedies "represent polypharmacy at its worst". To find polypharmacy at its worst, we must look instead at the orthodox medical prescriptions of the eighteenth century, such as the doctor's prescription for a purgative, recorded by Sir John Clerk (12) in 1740, which contained no fewer than 49 ingredients (see page 205); or at such famous (or infamous) articles of the pharmacopœias as Venice Treacle (61 ingredients, some of them compound) or Mithriac (48 ingredients) (13).

Some of the home remedies do contain numerous ingredients, but few can match up to orthodox prescriptions for sheer numbers of constituents. The fact that home remedies were largely compounded at home, would tend to reduce the number of constituents; whereas complicated prescriptions could entail high profits for physician and apothecary alike.

We have seen, then, that at the beginning of the eighteenth century, home remedies were the only medicines available to the majority of Scotsmen and that they consisted largely of fairly simple herbal concoctions, with a spiceing of magic. Meanwhile, orthodox medicine consisted, where it was available, of very similar remedies, often more highly compounded.

However, as the eighteenth century progressed, the paths of home and orthodox remedies diverged. The standards of agriculture, housing, education, transport all began to improve dramatically, and the population of Scotland's cities increased as trade expanded. Glasgow in 1707 had a population of 12,500. By 1800 this had risen to 80,000. The total population of Scotland rose from about a million at the beginning of the century, to one and a half million at its close. Meanwhile, the excise revenue rose by a much bigger factor, from £30,000 in 1707 to about £1,300,000 in 1797 (14).

This dramatic increase in urbanisation and in prosperity was reflected in the intellectual blossoming among Edinburgh's literati and in the foundation and rapid rise to greatness of Edinburgh's medical school. During the latter half of the eighteenth century Scotland, and in particular Edinburgh, produced a truly astonishing number of outstanding medical men. The academic eminence of Edinburgh University, especially in medicine, during the second half of the eighteenth century, is described, for example, by Morrell (15). Medical theories and nosologies (i.e. systems of classification of diseases) multiplied. This was the great era of 'rationalisation' of medicine, with an increasing

emphasis on scientific theory. The Pharmacopœias were 'reformed' by such men as William Lewis, M.D. (16), although the changes were not perhaps as dramatic as one might have expected. At least in the case of the Edinburgh Pharmacopœia, the 'reform' consisted largely of a fairly random reduction in the number of ingredients of some articles in the Pharmacopœia. Hospitals were opened and a simplified Hospital Dispensatory was produced, in which the degree of polypharmacy was genuinely reduced, chiefly by dint of excluding the more exotic and expensive ingredients (17). The story of the eighteenth century pharmacopœias belongs strictly in the history of orthodox medicine and cannot be fully told here.

With the upsurge in chemistry, there was an increasing use by the medical profession of minerals such as mercury, antimony, etc., to supplement the largely herbal remedies of the pharmacopœias, and increasing emphasis was placed on the importance to health of diet; this was not a new concept, but one that found favour during the Enlightenment, a period when Scotland's gentry was largely copying the ways of the English (18).

All these changes in orthodox medical theory and practice affected mainly the upper and middle classes (19). The only section of Scotland's poor to be really affected were the city dwellers, who did at least now have the chance of hospital treatment. The situation in rural areas, although improved by the amelioration of roads after the Turnpike Act of 1751 and by the increase in the number of doctors, did not change

nearly as dramatically as the situation in the cities. Large numbers of rural agricultural workers still depended, as they had earlier, on home remedies, or no remedies. It is not surprising to find that the recipes themselves changed little, although some influence was exerted on them by the greater availability of medical books for the layman (e.g. Buchan's Domestic Medicine) which came about as literacy and prosperity increased.

At the beginning of the eighteenth century, most of Scotland's population was dependent on folk medicine; by the close of the century orthodox medicine was becoming increasingly available. It is interesting to speculate on the relative value and efficacy of the two types of medicine;

"he who gathers a herb for his cure

Finds half the cure on the walk" (20)

These are the words of the self-styled 'Sir' John Hill, M.D., author of various popular eighteenth century medical works (21). They imply an interesting and largely overlooked facet of home medicine. Therapy is not simply a chemical adjustment of the body; there is a complex emotional involvement too. A pleasant-smelling herb gathered in peaceful surroundings may well exert a beneficial effect on the state of mind and hence state of health of the gatherer. Psychotherapy and ritual are important elements in all medication, and the ritual surrounding eighteenth-century herbal medicine probably replaced to a large extent the twentieth-century use of tranquillisers. In the long run, it may even prove preferable!

Pharmaceutical evaluation of herbal remedies is of great importance, but does not provide the whole picture. Una Maclean, in her book 'Magical Medicine' points out that

"the enduring value of African medicine lies not in its materials but in the methods and concepts which underly them and its continuing power is a tribute to the practitioners of this ancient art." (22)

Though referring to twentieth-century Africa, her words would be equally applicable to eighteenth-century rural Scotland.

The element of psychotherapy is of particular importance in dealing with pain, whether physical or mental. Everyone is aware how pain becomes worse when one 'fights' it; natural childbirth theories are based on the idea of the lessening of pain that can be brought about by relaxation.

"Each culture", Ivan Illich tells us "provides its own psychoactive pharmacopœia, with customs that designate the circumstances in which drugs may be taken and the accompanying ritual. Muslim Rayputs prefer alcohol and Brahmins marijuana,....Peyote is safe for Navajos and mushrooms for the Huicholes, while Peruvian highlanders have learned to survive with coca. Man has not only evolved with the ability to suffer his pain, but also with the skills to manage it: poppy growing during the middle Stone Age probably preceded the planting of grains." (23).

The eighteenth-century rural medical armament of painkillers (opium, quinine, henbane) may not appear impressive by twentieth-century standards, but the circumstances of their administration and the faith in their efficacy may well have increased their usefulness.

Modern medicine now recognises that pain levels can be reduced, not only by 'mind-over-matter', or bio-feedback as it is now called, but also by 'distraction' of the nervous pathways concerned by stimulation of proprioceptors in the tissues nearby (24). Thus, rocking to and fro can reduce backache, pinching oneself can reduce the level of pain felt at the dentist, etc. It is a striking feature of many herbal remedies that they appeal to all the senses. Many smell and taste pleasant, while the plants themselves are often beautiful in their natural state. Stimulation of senses other than the sense of pain, could assist in reducing pain levels. All such, admittedly secondary, features of home remedies could serve to increase their value.

The benefits of "holotherapy", i.e. treating the whole person rather than his illness, are now being recognised by modern medicine. One could argue that home-administered herbal remedies in eighteenth-century Scotland approached more closely to holistic medicine than did the orthodox medicine of the time, with its undecipherable Latin prescriptions.

What of the future of herbal medicine? Has its value been completely outstripped by advances in modern medicine? Lester King has described the eighteenth century as the adolescent period in western medicine (25). Let us not be so arrogant as to assume that medicine has now reached maturity. Indeed, it could be claimed that during the eighteenth century the evolution of scientific medicine

was unnaturally rapid, and as a result certain elements of value may have been lost. Alongside the continuing advances of medicine, leading to such highly sophisticated drugs as interferon, there needs to be a re-appraisal of traditional medicine.

It is a little-known fact that, even today, 40% of the drugs used in western medicine are plant-derived (26). Moreover, the synthetic pharmaceutical industry relies heavily on oil, and in the future this may not be forthcoming. The cost of synthetic drugs may become prohibitive, and we will be forced to re-examine traditional herbal remedies. There is a strong case for attempting to 'plough back' the best of traditional third-world, and historical western-world medicine into present-day practice, the grounds for this being both financial and cultural.

Rowell points out that

"in the eighteenth century Lepekhin insisted that physicians must learn from folk medicine. There is ample evidence that the same remains true today and this line of investigation is being followed enthusiastically by Soviet scientists in the attempt to exploit to the full the natural resources available in their country for the production of drugs of plant origin." (27).

In this country, we would be well advised to do the same.

We still have a great deal to learn about the pharmacology of herbal remedies. The possible interactions of different components of multi-herbal recipes is still a largely unexplored field. In a note on the pharmacological activity of Palestinian folk medicines, Miss Crowfoot points out that:

"In any recorded analyses of these plants we find a list, necessarily incomplete, of various constituents of more or less curative value. Some of these compounds listed are used as medicine at the present day, but it may not always be justifiable to compare their reactions given separately in a pure state with those when they are found in very small quantities in company with other substances. This must depend on the nature of the effect concerned since many compounds have extraordinarily powerful activity even in the most minute quantities." (28).

In a recent report submitted to the United Nations Conference on Science and Technology for Development (1979), the Economic and Medicinal Plants Research Association have stated the cogent reasons for increasing research into plant-derived drugs:

"In spite of the major contribution made by allopathic medicine to the quality of life of a large proportion of the world's population, many people today are critical of the 'impersonal' nature of the treatment offered and are questioning allopathic medicine's ability to provide adequate health care in many countries. Dependence on non-renewable natural resources, such as oil, for the production of drugs and ancillary equipment; location of manufacturing bases in developed countries many of which have high inflation rates; the high cost of building and maintaining hospitals and clinics required for the practice of this form of medicine; the financial arguments put forward by many pharmaceutical companies as the reason why they are not developing drugs for the treatment of the major tropical diseases; the large proportion of research and development costs attributable to the development of 'me-too' type drugs; and the increasing legislation in developed countries to combat adverse side-effects of drugs with its consequent escalation of research and development costs of new drugs and hence drug prices are cited as reasons why allopathic medicine will never be made universally

available. As a consequence, a large number of people are advocating a return to traditional forms of medicine, which utilize herbal preparations for the treatment of many ailments, in both developed and developing countries. This approach has been given a seal of respectability following the resolutions adopted at the 30th and 31st World Health Congress." (29)

It is sincerely to be hoped that traditional medicine will be allowed to develop alongside sophisticated medical research.

While no-one could advocate a return to eighteenth-century rural Scottish medicine, it seems that there are still lessons we can learn from it, plants we could use from it, and a holistic approach we could develop from it.

REFERENCES

- (1) Trevelyan, G.N. English Social History. Lingman, London, 1944  
Page 427.
- (2) Pennant Tour In Scotland . Edinburgh, 1769. Page 115.
- (3) Op.cit. (1), page 445.
- (4) Walter, Gregor Notes on the Folk-lore of North east Scotland  
Publications of FolkLore Society, VII, London, 1881, page 132.
- (5) McConaghey, R.M.S., M.D. The History of Rural Medical Practice  
in the Evolution of Medical Practice in Britain, Ed.: F.N.L.  
Poynter, Pitman, London, 1961.  
  
(Proceedings of 1st British Congress on History of Medicine and  
Pharmacy, London, 1960.)
- (6) Blake, John B. The Compleat Housewife. Bull.Hist.Med., 49, 1975,  
pages 30-42.
- (7) Loc.cit. (5)
- (8) King, Lester S., M.D. The Medical World of the Eighteenth Century.  
University of Chicago Press. 1958. Page 315.
- (9) Hultin, Neil C. Medicine and Magic in the Eighteenth Century:  
The Diaries of James Woodforde. J.Hist.Med. 30, 1975, pages 349-366.
- (10) Rowell, Margery Plants of Russian Folk Medicine. Janus 65, 1978,  
pages 259-282.
- (11) Loc.cit. (6)
- (12) Clerk of Penicuik Papers, Scottish Records Office, Edinburgh  
SRO GD 18/2125.
- (13) Wootton, A.C. Chronicles of Pharmacy. 2 vols. Macmillan, London  
1910. Vol II, page 38.
- (14) Op.cit. (1), pages 456,ff.

- (15) Morrell, J.B. The University of Edinburgh in the late Eighteenth Century: Its Scientific Eminence and Academic Structure. Isis, 62, 1971, pages 158-219.
- (16) Earles, Melvin The Author of the Pharmacopœia Reformata, 1744 Med. Hist. 20, 1976, pages 70-76.
- (17) The Prescriptions, as well Extemporaneous as Officinal, in Use at the Royal Hospital. In  
The Pharmacopœia of the Royal College of Physicians at Edinburgh Faithfully translated from the Fourth Edition with Useful Notes... By W. Lewis, M.B., F.R.S. London, John Nourse, 1748.
- (18) Lawrence, C.J. Personal communication.
- (19) Vern & Bonnie Bullough. The Causes of the Scottish Medical Renaissance of the Eighteenth Century. Bull.Hist.Med. 45, 1971, Pages 13-28.
- (20) Quoted by Andrew Young in  
A Prospect of Flowers. Johnathan Cape, 1945.
- (21) Virtues of British Herbs. With the history, description, and figures, of the several kinds; an account of the diseases they will cure; the method of giving them; and management of the patients in each disease etc.  
By John Hill, M.D. 1s6d. Baldwin, London, 1770.  
and see also:  
Drummond, C.G. Pharmaceutical "Opposition" in the Eighteenth Century. The Pharmaceutical Journal, 193, 1964, pages 643-647.
- (22) Una Maclean Magical Medicine. Penguin, London, 1971. Page 155.
- (23) Ivan Illich Limits to Medicine. Penguin, London, 1976. Page 151.
- (24) William F. Ganong Review of Medical Physiology. 7th edition. Lange Medical Publications, Los Altos, California, 1975. Page 81.
- (25) Op.cit. (8), page 53.

- (26) Bruhn, J.G. J. Ethnopharmacol., 1, (2), 1979  
Paper delivered at the Inaugural Seminar of Economic and Medicinal Plants Research Association, University of Cambridge Botanic Gardens, April 1979.
- (27) Rowell, Margery Medicinal Plants in Tsarist Russia. Janus 53, 1976, pages 85-93.
- (28) Crowfoot, G.M. & L. Baldensperger From Cedar to Hyssop. A Study in the Folklore of Plants in Palestine. London, Sheldon Press, 1932.  
See Note by Miss D.M. Crowfoot, Chapter V.
- (29) Herbal Medicine: An Alternative Health System or a Confidence Trick? Paper submitted by the Economic and Medicinal Plants Research Association, University of Cambridge Botanic Gardens, Cambridge, England, to UN Conference on Science and Technology for Development (UNCSTD), Vienna, 20-31 August, 1979.

APPENDIX

John Moncrief of Tippermalloch, Charlatan or Philanthropist?

In the foregoing chapters, extensive quotations have been made from 'The Poor Man's Physician', written by John Moncrief of Tippermalloch. Since little has been written either about him or his book, it seems appropriate to gather together here the information available concerning the man himself, and the origin of his book.

John Moncrief was the only son of William Moncrief, minister of Methven. His date of birth is uncertain. It is known that he was licensed by the Presbytery of Perth on 24th April 1728, and that he was ordained on 8th April, 1731. In the same year, he succeeded to the parish of Rhynd, in the Presbytery of Thynd. The vicarage of Rhynd belonged to the Priory of Pittenweem.

John Moncrief succeeded his uncle, Sir Hugh, in the estate of Tippermalloch. In 1744, he married Margaret, daughter of Archibald Moncrief, minister of Blackford. They had eight children, among whom was William, who later became an MD of Bristol. (1).

One can only guess at John Moncrief's motivation in writing his book 'The Poor Man's Physician'. In eighteenth-century Scotland, many ministers dabbled in medicine: some were undoubtedly well-versed in the medical literature of the day. George Ridpath, minister of Stichel from 1755-1761, is a case in point. His diary indicates the amount of medical reading he did, even to the extent of helping revise John Miller's medical thesis, "which does not require many corrections" (2). In 1755 he studied Dr Huxham's Treatise of Antimony. In 1758 we find him studying Francis Home's Principia Medicinæ (Francis Home,

M.D., 1719-1813, was Edinburgh Professor of Materia Medica from 1768). Such entries make it clear that George Ridpath was a serious medical scholar, as well as an unofficial practitioner of medical help to his parishioners.

Other ministers in eighteenth-century Scotland took an active interest in the "folk medicine" practised by their parishioners, and their writings provide valuable evidence on this subject. The Reverend Mr Shaw, minister of Elgin, in an appendix to Pennant's 'Tour in Scotland', 1774, provides a very interesting account of the remedies of "our natural physicians" in Elgin and the shire of Murray (3). Information from this account has been quoted several times in the preceding chapters (see e.g. pages 148 and 176 ). Data provided by ministers from all parts of Scotland in Sinclair's Statistical Account of Scotland include, in many cases tit-bits concerning the unofficial medicine and superstitions practised in their parishes (4).

Moncrief, however, does not appear to fall into either category of eighteenth-century Scottish ministers mentioned so far. It seems unlikely that he was a serious student of medicine, since so few references are made in his book to medical authorities; nor, on the other hand, did he record, out of interest, the local medical practises around him. Instead, he produced a book, in English, of home remedies, which proved to be a best-seller throughout the eighteenth century.

It is interesting to speculate on Moncrief's motivation in writing this book. Comrie, in his 'History of Scottish Medicine', suggests

that Moncrief's book was designed for clergymen, lairds or great ladies who took an interest in their retainers (5). I would like to suggest that the origin of the book was rather different. In 1712, when the book first appeared, printed books of medical remedies, whether official or unofficial, were still mostly written in Latin. Moncrief saw a 'market' for a collection of remedies written in English and thus available to anyone who could read. He was a theological rather than a medical student, and in the course of his studies, possibly among the books belonging to Pittenweem Priory, he came across the *Thesaurus pauperum*, written by Petrus Hispanus in the sixteenth century.

In a note to the Reader, at the beginning of the Second Edition of 'The Poor Man's Physician' (1716), we read:

"Neither is it any Disparagement to these Receipts that the Author has been beholden for many of them to some ancient Writers, particularly to Petrus Hispanus (afterwards Pope John XXI) his *Thesaurus pauperum*, seeing it may be rationally supposed that he has not taken them upon Trust, nor without due Trial and Examination" (6).

Now if we compare the *Thesaurus Pauperum* with Moncrief's book, we find that Moncrief borrowed very extensively from this work; so much so, indeed, that it is true to say that 'The Poor Man's Physician' is little more than a re-arranged translation of the *Thesaurus Pauperum*.

In 1585, the *Thesaurus Pauperum* was 'Englished', under the title of 'The Treasury of Health' by Humfrie Lloyd (7). If one compares this translation with Moncrief's book, the resemblance is remarkable. All Moncrief's remedies for Falling of the Hair, save only onions, appear in the Treasury of Health. Moncrief's section 'To hinder Hair from

Growing', is entirely taken from the Treasury of Health, so is most of the section entitled 'For Ulcers and Scabs in the Head'.

Although the order of the remedies in the Treasury of Health differs from that in Moncrief's book, most of its contents are incorporated somewhere in 'The Poor Man's Physician'.

Did Moncrief himself translate the "Thesaurus pauperum", or did he rely on someone else's translation? It seems likely that he translated the book for himself, both on the grounds that, being a minister he would be familiar with the Latin language, and since there are discrepancies between Moncrief's version and that of Humfrie Lloyd. For instance, Moncrief tells us in Part II of 'The Poor Man's Physician':

"Wash the Head with a Dog's Urine, and you shall not be bald" (8)  
whereas the Treasury of Health tells us:

" Let thy head be washed with dogges pisse, and thou shalt be bald." !!!  
(9)

Humfrie Lloyd's translation gives, in nearly every instance, the origin of a particular recipe. Sources include Dioscorides, Galen, Avicenna, Pliny, Bartholomeus, Macer, Peter Lu, Sixtus, Gerard etc. Moncrief, at least in edition three, only rarely mentions the source of a particular remedy.

The first published edition of Moncrief's book appeared in Edinburgh in 1712, under the following title:

"Tippermalluch's Receipts being a Collection of Many Useful and Easy Remedies for Most Distempers Written by that Worthy and Ingenious Gentleman John Moncrief of Tippermalluch And now first publish'd for Use of All, but especially the Poor.

Edinburgh. Knox, Freebairn & Simpson, Cowgate, 171 (10)

Slight mystery surrounds the actual date of origin of the book, however. Among the Clerk of Penicuik papers in the Scottish Records Office, Edinburgh (11) are some handwritten notes, clearly dated 1693, and entitled

"Ane Doublo of Tippermallochs receipts"

The notes which follow correspond closely with edition one of Moncrief's book (See also page 28 ).

A second transcript of Moncrief's remedies, this time dated 1684, is to be found in the National Library of Scotland (12). At the end of this manuscript, the following note appears:-

"P. 181. The End of the Famous TIPPERMALLOCHS receipts yt given to me by Sr Ja: Stuart Advocat at Rotterdam Ao. 1684 From ye (?) MSS in Oct I took ye transcript wch I got from George Millar Nottar Fonto (?) Gurlebank about ye Latter end of jan 1710."

This manuscript is entitled

"The Famous Tipper-mallochs System of Physick."

In both order and content, this manuscript, like the Clerk one, corresponds closely to Edition One, published in Edinburgh in 1712.

Evidently for some reason there was delay in publication; and equally evidently, the 'receits' achieved some degree of fame more than ten years before they were published.

The book evidently proved successful, for after a pause of only four years, a second edition appeared, in 1716, entitled:

"The Poor Man's Physician or the Receipts of the Famous John Moncrief of Tippermalloch. Second Edition, very much enlarged.

To which is added the Method of Curing the Smallpox and Scurvy by Dr Archibald Pitcairne. Edinburgh, 1716.

The author has been beholden for many of them to some Ancient writers,

particularly to Petrus Hispanus (afterwards Pope John XXI) his Thesaurus Pauperum." (13).

Although the order of this edition differs from that of edition one, the content remains much the same, with some additions. An attempt has been made in the table on page 334 to compare the two manuscripts and three printed editions of Moncrief's work.

Edition three appeared in 1731, entitled;

"The Poor Man's Physician or the Receipts of the Famous John Moncrief of Tippermalloch; being A choice Collection of Simple and easy Remedies for most Distempers, very useful for all Persons, especially those of a poorer Condition.

The third Edition. Carefully corrected and amended.

To which is added The Method of curing the Small Pox and Scurvy, by the eminent Dr Archiblad Pitcairn. Edinburgh, 1731." (14)

This third edition contains the following note:

"To the Reader

As it is not necessary, so neither is it the Design of this Preface to give the Reader a Character of that worthy and ingenious Gentleman, whose Name is prefixed to these Receipts, his extraordinary Skill in Physick, and most successful and beneficial Practice therein, being so well known, and as yet fresh in the Memories of a great many Persons, that few Readers, in this Country at least, can scarce be supposed to be ignorant thereof; and of which also the ready Sale of two former Impressions, tho the first was coarse and incorrect, and the other over-rated, is a pretty clear Evidence.

As for the Cures themselves, the Reader will readily observe, that they are generally made up of plain and simple Ingredients, and consequently, tho they may be useful for all Degrees of Persons, yet seem mainly designed by the Charitable Author for those of a poorer Condition, who have not Access to, nor Money to bestow upon

more costly Compositions. Neither is it any disparagement...etc  
(here follows note on Petrus Hispanus, quoted on pages 329-330) (15)

It seems that, once the success of the book was established, Moncrief could afford to be totally honest in his acknowledgement of the *Thesaurus Pauperum*. In his defence it must be pointed out that in the eighteenth and earlier centuries, plagiarism was rife, and indeed it was taken for granted that authors 'borrowed' from earlier authors. Many of the herbals of the fourteenth, fifteenth and sixteenth centuries were largely copies of earlier ones, and indeed all of them in turn repeated prescriptions dating back to Dioscorides, Galen and other ancient writers. The '*Thesaurus Pauperum*' itself is a case in point: the full title acknowledges that the medicines it contains are "gathered out of Hippocrates, Galen and Avicen" (16)

Despite the claims in the preface to the third edition (page 330), it remains unclear whether Moncrief actually practised any medicine at all, or whether, to put it at its most cynical, he merely 'cashed in' on the contemporary need for home remedies by translating the *Thesaurus Pauperum* and making a few additions. Either way, his book filled a contemporary need, and, as we have seen in the preceding chapters, many of the recipes he suggested would do good rather than harm, a claim that could not always be made for orthodox eighteenth-century medicine.

REFERENCES

- (1) *Fasti Ecclesiae Scoticae* by Hew Scott, DD, Revised and enlarged edition, Oliver & Boyd, Edinburgh, 1923.  
Vol. 4, page 244
- (2) *Diary of George Ridpath, Minister of Stithel., 1755-1761.*  
Edited with Notes and Introduction by Sir James Balfour, CVO LL.D.  
Edinburgh, printed by Constable for Scottish History Society,  
1922. Page 141.
- (3) *Pennant Tour in Scotland, Third edition, Warrington, 1774*  
Appendix II by Rev Mr Shaw, Minister of Elgin.
- (4) *Sinclair, Sir John The Statistical Account of Scotland, drawn up from the Communications of the Ministers of the Different Parishes. 1794.*
- (5) *John D. Comrie History of Scottish Medicine. Wellcome Historical Medical Museum, London, 1932. Vol II*
- (6) *The Poor Man's Physician, or the Receipts of the Famous John Moncrief of Tippermalloch. Second edition, Edinburgh, 1716.*
- (7) *The Treasury of Health containing many profitable medicines gathered out of Hippocrates, Galen and Avicen, by one Petrus Hispanus, and Translated into English by Humfrie Lloyd, who hath added thereunto the causes and signes of everie disease, with the Aphorismes of Hippocrates, and Iacobus de Partibus etc etc London, 1585.*
- (8) *Op.cit. (6), Part II, No. 14.*
- (9) *Op.cit. (7), Cap. I*
- (10) *Details taken from copy in National Library of Scotland, Edinburgh. Recent acquisition (Uncatalogued).*
- (11) *Clerk of Penicuik Papers, Scottish Records Office, Edinburgh  
SRO GD 18/2130.*

- (12) Manuscript in National Library of Scotland, Edinburgh  
MS 3772.
- (13) Details taken from copy in the Royal Scottish Museum Library,  
Edinburgh.
- (14) Details taken from privately owned copy, of the third edition.
- (15) The Poor Man's Physician or the Receipts of the Famous John  
Moncrief of Tippermalloch. Third edition, Edinburgh, Heriot,  
1731. Page a.2 (Preface)
- (16) Op.cit. (7). Title page.

Comparison of different versions of Moncrief Receipts with Thesaurus

Pauperum, as translated by Humfrie Lloyd.

Thesaurus Pauperum	Lady Clerk 1693	National Lib. MS3772 1710.	Edition I 1712	Edition II 1716	Edition III 1731
I Remedies for diseases of the head, breast, belly, fevers, etc.	These MSS appear almost identical in content and very similar to Section I of Thesaurus Pauperum		Order and content similar to MS 3772: also strong resemblance to Thesaurus Pauperum: Moncrief omits 2nd section on fevers and inserts some miscell- aneous recipes of his own.	Some re- arrange- ment of material, e.g. P224 ff, give signs and presages of disease which forms first part of Ed. 1 and of MS 3772	Further re- arrangement Part II and some of Part III still co- rrespond closely to MS 3772 and Edition 1, and to Thesaurus Pauperum.

### ERRATA

1. On pages 131(V), 272 and 302, the Squill referred to is more likely to be the native species Scilla verna, Huds.
  2. Page 146: the spasmolytic action of the herbs mentioned would probably be too slight to affect the severe muscle spasms of rabies.
  3. Page 264: The sulphonamide drugs did not in fact prove effective against tuberculosis: no effective therapy was available until the advent of streptomycin and other antibiotics.
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