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On
The Practice and The Theory
of
Medicine

by
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1.

Preface -

The attention of Medical Students in this University has recently been directed to the present state of the Theory and practice of Medicine. The chief means of directing their attention to this important subject was an Introductory Lecture delivered and subsequently published by Professor Bennett. During the study of that interesting & able lecture, a Curiosity was excited in ourselves (as probably in many others) to investigate the points of Contrast between the Science and the Art. And now altho' there is ample reason to regret the inadequacy of the effort and the meagreness of the result there can be no feeling of regret as if the subject - viz, by so powerful a recommendation, allured our thoughts from other topics - were unworthy of consideration. Even the truths, elicited by too present imperfect investigation, appear - but perchance to a too partial Eye - to deserve some measure of attention.

Thus it will appear that the instincts or

tendencies w^h prompt to practise are different
 from those w^h foster theory. Such a fact must
 be of practical importance; for altho' some
 students by the 'res angusta domi' are com-
 pelled to accept the more acceptable route (whether
 or not it be adapted to their character) — there
 are many who in regard to external circum-
 stances can follow whichever path they may
 select. How important is it for such men to
 know that in the selection of their course they
 should still bear careful reference to the internal
 circumstances of temper and of talent. It is no-
 torious that students have entered upon a course
 ultimately leading them into practice — when
 the whole temper of their minds unfitted them
 for so robust a vocation yet w^h have
 rendered them imminently successful in Scien-
 tific pursuits. Neither is it rare for other
 students labouring under the Greek distemper
 — "avaritia laudis" — to abandon & contemptu-
 ously to estimate the practise of Medicine,
 while ostentatiously they prepare themselves
 for immortal discoveries in Medical Science.
 A slight acquaintance with the character

3.

required in practice and in Theory - we disclose
their unfitness alike for both departments. It
may be said that some men will always in the
Nature of things - mistake their calling. This is
true: but to prevent so sad an error in our
own choice it will not be unadvisable to consider
wh instinct is most strong in us - to Con-
templation or to action -

Further - Men actuated mainly by instinct &
blind habit of thought, do not understand &
forthwith proceed to despise those who are
not actuated by the same instincts nor
governed by the same habits of thought as
themselves. Whereas men who have obeyed
the Delphic Oracle - and obtained a knowledge
of their own Subjection to peculiar desires and
modes of thought - will readily acknowledge
the equal right of others to indulgence. Such
differences in native impulse & character subsists
between the men marked out for practice - and
the fewer number marked out for Contempla-
tion. What then is the common result? The
former cannot understand how the latter do
do so little, and the latter in their turn

Marvel that their busy neighbours have so little inclination to know. Hence may arise mutual disparagement and recrimination. The practitioner doesn't care for the theories of a man who spends all his time looking thro' a microscope - the Theorist doesn't care for the boasted experience of men who are ignorant of the first principles of Physiology. The former blames the Scientific for pursuing their investigations while a plague smitten & decimated population call loudly for relief; and the Scientific then retort by taunting the former with the vain efforts of their blinded Empiricism. There may be a measure of truth on both sides; and practical good will result from the stimulus - well meant or otherwise - wh^{ch} each receives in the reproach of his Anti-type. But surely all the good w^{ch} be attained & the undesired evil avoided by acquaintance with the difference in their Mental Constitution and the mutual compatibility & advantage of their respective pursuits.

Finally, the Enthusiasm of the practitioner and of the Theorist - (and on Enthusiasm Success and greatness ever depend) varies pretty con-

5-
Handly in proportion to the clearness with which their
appropriate Objects are apprehended by the Mind.
It has been our aim to picture these respective
fields & invite the Energies of Medical Men.
If the portraiture be too feeble and words have
proved inadequate to paint these scenes in
a manner that shall rouse other hearts - yet
for our own Enthusiasm in a profession too
arduous for the cold hearted to endure the
attempt need never be regretted -

In the Arrangement adopted by us ~~in~~
throughout the succeeding Essay, it is our
intention to consider - first - the practice
of Medicine because practice precedes
theory - Secondly the theory of Medicine
and thirdly the mutual influence of
Theory and practice -

Part I.

The practice of Medicine -

The title wh^{ch} is prefixed to this first portion of our Thesis is sufficiently definite to withdraw the attention from many interesting enquiries. Thus no one will expect any dissertation touching points of Theology or Law - of Rhetorical or Natural Philosophy. The view of the reader is sure to be restricted to questions around the fact that men practice medicine.

But even within this restricted range and about this apparently simple fact the mind has found different points of view. Thus without attempting a complete enumeration, we may state that there are at least three phases wh^{ch} the subject - practice of Medicine - may reasonably assume -

1. One phasin under wh^{ch} "practice of Medicine" presents itself to the eye, is as an objective Reality. There is, at this time in the world, without us in Scotland and throughout the Streets of Edinburgh a peculiar practice regularly adopted by Medical men, in stated diseases. Is this proper procedure in actual

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diseases. the attention m^t be directed; & the result of such an inquiry w^d be an alphabetical or other orderly arrangement of the treatment recommended by the Faculty. But for such a voluminous compilation no one w^d look to the thesis of a medical Undergraduate - .

2. Another phase in w^d "Practice of Medicine" may be viewed - still as an Objective Reality - is the Historical. Viewing it in this light we w^d seek for the origin and development of the practices now deemed orthodox in this or that disease and the cause of the decay of practices now disallowed. Such a declaration in its fulness w^d come fittingly from the professorial Chair and in value it can scarcely be overestimated. It w^d be without doubt as efficient in preventing the rise of heresies half new half old - in Medicine as the corresponding Study of Church History is testified to have proved in averting Resuscitations in Theology. But in its fulness such a theme is as unfitted for a Student's pen as w^d be a dogmatic statement of the approved practice in each several ailment. It is true that

a student not reasonably, and with profit devote his attention to the history of some special practices in Medicine - i.e. e.g. - the history of the administration of Mercurial Remedies and the history of Venesection. This it will appear we have not done: not however from any Contempt for such monographs but from the previous attraction of our energies to the investigation of the General Subject in its Third Aspect.

3. The phasis, therefore, under which the practice of Medicine will be viewed by us, is as a Subjective Reality: as an exertion of Human feeling and a development of Human Energy and Intelligence in a special direction by special phenomena - .

Thus there are certain facts and realities in the world which beset us - Sick babes and suffering women, dying men and Cities smitten with the pestilence. But these realities cannot do more than appeal to Man. If certain elements of character be powerfully operative the result is practice; but if these elements be dormant the very same sight may produce a very different

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result - a laugh of indifference - even a morbid pleasure or cold speculation. Further, the occasion being presented & the true motive kindled, man exhibits himself as a practitioner: still the influence of subjective causes (i.e. of features in his own previous condition) continues to modify his practice. It is only gradually that the prejudices, under wh^{ch} his first efforts at interference were made, become more faint until complete reeducation is accomplished, and practice becomes Rational.

Regarding the Subject in this aspect there are three points wh^{ch} we must in their order consider: 1st The External Realities wh^{ch} appeal to man as one able to practice Medicine;

2^o The internal motives wh^{ch} impel or guide him to interference: and

3^o The modifications of his practice by his reeducation from natural prejudice. But the two former considerations may suitably be embraced under one Section: viz: the Origin of Practice: for the outward occasion and the internal motive are both equally necessary for the resulting phenomenon. Under

a separate section - on the Subjective development of practice - we will enter into the Consideration of the third point -

Section I. The Origin of Practice of Medicine.

1°] The External Reality which invites & justifies Medical practice is primarily the existence prevalence & urgency of disease: and secondarily the arrest or modification of disease by timely interference. The latter is not the primary occasion, for the simple presentation to our view of fellow creatures suffering from distempers will suffice to awaken a strong impulse to attempt their recovery - prior to any experience of success: but doubtless a conviction that success may crown our efforts will constitute a powerful subsidiary motive.

We have said that the existence, prevalence and urgency of disease constitute the main but not the sole occasion for Medical interference.

The existence of disease is a Reality: by the contemplation of the Reality we most readily arrive at the meaning of the word.

Hamilton's 'Reid'. Note I. p. 220.

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"†
For it is well said by the old logicians - "omnis intuitiva notitia est definitio" i.e. a view of the thing itself is its best definition. That reality of disease is felt by old & young, by rich & poor, by patient and anon by his physician. It is felt - but it may exist where there is no feeling of its presence as in the infant - the dotard - and the unconscious. It is felt - but not necessarily as pain. The latter is rather a frequent concomitant than an essential part or constant measure. Great where disease is comparatively slight pain may be slight where the disease is most grave. The appropriate feeling then - if any feeling there be present - is a sensation of weight, embarrassment & absence of ease in the performance of natural functions. Hence probably (as in the French term malaise) there arose a term Disease - etymologically most significant to one who has also viewed the picture which is designed to name - . The skin may be pallid or waxy and green or dry with white scurf or crowded with fiery eruptions: the eye

may be congested & wild or deep sunk & wild, while
 the ear is heavy or fretful at slightest sound:
 the tongue & pulse may pass thro' every de-
 scrutable state - the intestinal canal &
 subseruent glands may show sign of altered
 action - while heart & lung may yield un-
 erring proof by stethoscopic sounds of mor-
 bid lesion - but all these signs are
 gathered by the mind to form One picture
 and as it looks at each sufferer it has
 One common judgment to offer - this is
 disease - It is not strange to mark, in
 that instinctive preference for a negative term,
 the unwillingness of the mind to accept the
 dreary dismal picture as a positive reality -
 as if it wd recall the attention to the easy
 action & fresh energy of Health - Let us ac-
 cept that hint and deepen our estimates of
 disease by gazing first on the more pleasing
 sight of Health. Look then at that body
 as it stands erect or now is seated or lie
 supine with limbs turned freely thus
 or thus: the eye to any point is readily
 directed, and the ear without one painful

Effort catches every needful sound. The food is cheer-
 fully masticated & painlessly is swallowed - nor
 is known again by weight distension or ten-
 derness at Epigastrium: no nausea is there
 nor vomiting - no borborygmi distressing to
 sense and ear - no spasmodic struggles -
 Everything is performed with ease. How softly
 do the Costae rise - and the breath of life how
 gently yet efficiently does it fill that ample
 breast! The heart beats slowly with quiet
 Confidence, or if exertion be needful, its pulsa-
 tions without distress in rhythmic harmony
 become more full and strong yet ever steady.
 And the brain too performs its mysterious
 functions noiselessly and well: by it he sees
 & hears and thereafter judges; he chooses &
 presently pursues and with a ready hand
 secures; he glows with rapture, is depressed
 by sorrow - is indignant at a wrong; he
 admires the Good - he contemns the Mean
 and merrily he laughs at the ridiculous.
 That man is in health: No wonder surely
 that the Mind prefers this picture as the
 Standard of Comparison, and that as it

gazes on the dark reverse, it should triumphantly name it - Dis-ease -

So much we may say for the Reality of Disease; let us add a few words as to its prevalence & urgency. The former term denotes its extension or the number of the human kind whom it embraces: the latter term denotes the firmness and vehemence of the hold with which it grasps its victim - The prevalence of disease might be studied under two aspects - viz the chronological & the geographical - as prevailing in time & prevailing in space - On the geographical distribution of disease no very accurate information has yet been secured. But we are informed that the subject has recently attracted the attention and may yet call forth the talent of a most distinguished Gentleman - Her Majesty's Geographer for Scotland - The chronological prevalence of disease has in like manner not received such attention as to be yet constituted the subject of a definite Science; but in special distempers (Smallpox & Gr. and Syphilis - in Cholera and influenza) we

find some records of their History -

The urgency of disease varies in degree: Sometimes disease appears to play (as it were) with the body of man - tossing it over and then suffering it to rise. At another time it saps his strength little by little; it is dangerous but not urgent. But anon, in brief time, redoubling and again reiterating its attacks, it pauses not till it lays him low in death. It is this urgency which awakens the earnest efforts of Medical practice - and though final recovery may be hopeless - we feel some satisfaction in warding off the instant peril and in protracting the middle stage between Health & Death.

We have stated that there is another outward Reality which concurs in awakening and still more maintaining the energies of Medical practice: It is the natural limitation of disease - and its amenability in many of its forms to treatment. Without such a picture to cheer his heart & guarantee his hope, the physician would ultimately sink into apathy, or if he still remained sensible to the horrors of disease, he would fly from the

sight of it as engendering thought but profitless despair —

[2. Internal Motives] These preternatural realities appeal to all men; but all men are not inclined² alike to view them steadily, nor disposed by such a view to act. For the final result there are further necessary internal motives and mental tendencies. These now solicit attention.

All the principles wh^{ch} guide men to action may be included under the two terms Instinct and Reason. Instinct denotes the principle wh^{ch} leads man to act when, by sense, he perceives an object suited to the natural preferences [appetencies] at the moment powerful within him. Reason denotes the principle wh^{ch} leads man to act when by Intellect he perceives an object suited to the deliberate preferences which he has knowingly endorsed as his own — These lead man to the Navy or Army — to the Bar, the pulpit or the Merchant's Office: they guide him also to the practice of Medicine —

In regard to the former group of principles — there are two appetencies wh^{ch} instinctively impel the heart toward practice —

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viz: Benevolence and Love of Power. A few words
will suffice for the illustration of this statement.
He readily admit that Benevolence and Love of Power
may - avowedly, to a man's own consciousness, and
by his deliberate consent - govern his actions
whether he be physician, statesman or Country
gentleman. At such a stage they have become
Principles of Reason: but long prior to this stage -
before a man has recognized & by deliberate
consent accepted their controul - they have
been slowly establishing their ascendancy
over him by unnoticed instinctive impulses.

Assuming then the originally in-
stinctive character of Benevolence & of Ambition
need we attempt to shew that in the field
of Medical Practice ample gratification
may be obtained for both passions? In re-
gard especially to the amiable feelings of
Benevolence, it is unnecessary to do so -
sufficient it is to remark that when the Great
Searcher of Hearts desired to test the presence
of this virtue in the Priest - the Levite
and the Samaritan - he did so by placing
a wounded man bleeding and faint by the

wayside: so still in our own day the instinctive tenderness of Human Nature betrays itself, by kindly deed in the presence of disease -

But is there room also for Ambition? We might fancy that the doctor w^d have no time to dream of power — so sorely puzzled is he and distracted in chasing and unmasking the Protean forms of disease. True; but no man is so busy as to have no time for a motive; he is busy — in fact — just in proportion to the strength of his motive, and in the physician, as in the busy Church-man and politician, the central instinct may be love of power. Altho'to, in English History, the sway of Medicine has been unobtrusive. The churchman in former years claimed exemption from civil Law and even essayed to rule the State: the Bar has furnished many legislators to the Nation and has given laws to the church; but as yet in English Annals the Medical profession has scarcely exercised a National authority. That time may come. Meanwhile let us not suppose that the

doctor has no power, or that there is no room in our profession for the promptings of Ambition.

Reason - no less than natural instinct - guides man to the pursuit of Medicine. It does so by revealing to the Intellect the Good w^h may thereby be effected. ^WThe Good (effected by Medical practice and foreseen by Intellect) pertains either to the practitioner himself or to his neighbour - that is - mankind - or (with deep reverence we might add) to the Creator - ⁽²⁾In regard to the Almighty and Ever Blessed God - the only good - w^h man, by any means, can possibly effect - is a more full illustration before men of His glorious Attributes. In the course of Medical practice such illustration is of constant occurrence. Thus many features in the Divine Goodness are rendered more visible - his goodness for example - in implanting human Sympathies - in furnishing adequate intelligence and means of discovery - in granting power to set some limits to disease. Thus also he becomes acquainted with the Divine

doctor has no

power: if he fails to check the progress of a malady he learns more fully the power of those external Agents - the Heat & the cold - the Wind & the Fog which are the ministers of his pleasure - or if, more happily he be successful in the treatment his admiration is more quickened thus to see how God is able to make the body - which is but a fragment of clay - withstand or surmount influences against which it might appear hopeless to contend. It was after such a survey that a German Philosopher declared that when he saw the delicate Corporeal organism, great was his wonder not that the Body was sometimes ill but that it was ever and so often well!.

(B) The good to be effected toward his neighbor is another Rational Motive to the practitioner in Medicine. As to the amount of good effected by the physician very different estimates have been formed. Some men have affirmed that, on the whole, doctors have done more harm than good and that the country would be better without them. So a man irritated by some recent overcharge or by blundering

prescription, this judgment may appear not less true than pointed; but to the physician - with a full knowledge of the urgency of disease & a large experience of manifest advantage from experience, the petulant sentence is too ridiculous for serious refutation.

(V) The good w^h Reason reveals to the practitioner may concern himself. The forms under w^h this rational self love is developed are various. Thus a man may practice 'the Healing Art' for its reflex influence upon his own character - rendering him less speculative, more sympathizing - more prompt benevolent and wise. But the most common form in which a regard for personal good is shown - is by a demand for pecuniary remuneration and for social position. Such a demand cannot be regarded as unreasonable in return for the services w^h a sound Medical Education enables a man frequently to afford. If therefore we censure the student who enters upon the Medical profession solely for his own gain and advancement - not less severely w^h we condemn the men who

after recovery, gratitude to their physician, adequate honour and sufficient support. Men who conserve their mental & moral energies, who imperil their health and who are ready to sacrifice their lives in due season for the lives of the people and the glory of God, ought not to be put off with idle thanks.

Section 2°.

On the Subjective development of the practice of Medicine.

The thoughts to be expressed under the present Section bear reference to the fact that, by the gradual enlargement of the mind's view regarding the proper field of practice, the original impulse becomes altered in its direction & mode of development.

The impulse, originally excited by the urgent necessities of disease and subsequently converted into a deeply rooted purpose, by the approbation of Reason, awakens Man to activity while yet ignorant of the proper course of procedure. On the first as on the last occasion the feelings are thoroughly excited by the scene of bodily suffering and disease; but by no means in equal proportion is the judgment informed. The mind may at once see

that something is wrong & that something should be done; but what is wrong & what should be done are questions for very tardy solution after prolonged experience. Meanwhile the occasion will not tarry, and busy instinct will prompt the man to try something while yet the opportunity remains. He does so in vague hope, with varying and uncertain result. Now were the Intellect in no way excited to concurrent activity, the History of the Practice of Medicine w^d be included in a constant repetition of the same instinctive act: there w^d be no further Subjective history for us to trace. But by virtue of our moral nature that w^d engages the attention of the heart will with it secure the energies of the Intellect. Hence with the extension of sound experience the clouds of prejudice are gradually dispelled until in the end practice attains the full cooperation of the Intellect & becomes Rational. It is to the history of this process that the present Section is devoted.

The prejudices, under which - at outset & for many years - the practitioner is subject, relate either to the disease or to the Remedy. All the prejudices of the former class are

reducible to One great prejudice against disease as an incarnation of everything that is evil.

Under this impression the practitioner, when roused to meditate an attack, may turn on the first unusual symptom that catches his eye : — as during the olden time in a noisy hubbub, the schoolmaster w^d level the Ruler at the nearest head — . But that unusual symptom is perchance the laudable exertion of an organ healthfully striving by its overwork to save the whole organism from an unseen insidious attack. By failure in thus restoring health & by unexpected restoration soon as his interference ceases, the practitioner learns that the abnormal is not necessarily morbid, and that the Unusual should not summarily be impeached as the disease.

In like manner, during his dark & murky Condition, the practitioner is apt to regard disease as a Successful Usurper w^h seizes his body, & in every corner plants a force of its own. He therefore goes up to master a disease, as a General w^d advance to one of his own forts w^h had surrendered to the Enemy. But while

the body is alive, it has not thus, wholly surrendered. If in the belief that it has, the practitioner musters all his forces, resolved to act heroically - to put down the disease at any cost & to regard every stranger caught in action to be virtually against him, he is too likely, to quench the spontaneous efforts of the vital force. Again therefore by experience the physician is taught that the forces at his disposal ought not to be thrown precipitately upon a body of symptoms.

Many of these are but the energies of Health once peacefully inserted in well known form but now necessarily disguised in the unwonted & fierce garb of war. Gradually he learns that it demands the nicest discrimination to tell friend from foe & that the highest exercise of skill is to strike at the true offender at the proper time -

Lastly in the same spirit the practitioner is apt to regard disease with antipathy as a thing, no sooner seen than to be attacked - almost as a sin w^{ch} it wd be wrong in any measure to countenance. Such a feeling m^t be termed the Hypertrophy of Instinct; its disastrous

influence upon Life and Health is too notorious to require illustration. Even among the reasonable it is long before a man can so far master the very Instinct which roused him from inaction as to allow disease to resolve itself without his interference. So strong is the Instinct that the Rational Object to which it should always be subservient becomes forgotten. The Rational object in interference is the Good of the Sufferer; but to restrain the hand in the presence of disease because such restraint will be better for the patient is to exercise a virtue with difficulty obtained by the predominance of the Rational over the Instinctive Motives. Not till a late period is Non-interference established as a Rational the paradoxical branch of practice.

But the mind is beset by another group of prejudices in favour of the 'remedia' employed in treatment. If on the one hand Disease is regarded as in itself evil & every Corporeal Change be watched with suspicion prior to treatment — So on the other hand the Remedy is favourably viewed as something good

+ Pharmacologia : 8th Edition : p. 264.

in itself and every hopeful change after its exhibition is ascribed to the benign influence.

There are three modes in which this prejudice operates. [1°] It renders a man positively fond of "physicing": if asked strictly concerning its necessity, he m^t not dare to affirm that the patients w^d not get well without the dose is soon - as comfortably - as safely - but still he has a decided feeling that it w^d be better to give it. For one reason he himself feels more comfortable as if he had done his duty; and [all other things being equal] the patient ought surely to prefer to get well with Medicine rather than without it - Quite in accordance with this fond view of Medicine the young & eager practitioner - as Dr Paris remarks - is betrayed into the error of supposing that the powers of a Remedy increase in an equal ratio with its dose. In opposition to this fond opinion what does Science say? In the words of Linnaeus. Medicines differ from poisons not in their nature but in their dose; or in the well known aphorism of Pliny "Ubi virus, ibi

* *Hollands Medical Notes* : p. 110.

† *In Eodem loco*.

virtus": So that food, Remedies & poisons may be said to branch into each other by indefinable gradations - "Quite in accordance with the same distrust in the Organic forces & a desire for some External object of Confidence is the Opinion not infrequent among Medical men that the Multiplication of Remedies adds in the same ratio to the power and facilities of Medicine." What says the Scientific physician? "This view is admissible only in a very qualified sense. It is in truth as correct to say that the addition of new Medicines & preparations w^h do not properly accomplish new purposes or fulfil more advantageously those already attained becomes an encumbrance to the practitioner and an impediment to the progress of the Science."

2°. The mind may rise above the love of trying some sort of Medicine in every ailment and so of multiplying drugs, yet the same partiality remains. When a remedy has proved useful in one disease, the mind will praise it over much & incontinently mul-

tively its applications. It ought strictly to examine
 the exact conditions in w^h the remedy proved use-
 ful - : by such definition it limits, but at the
 same time perpetuates the application. It does
 not limit nor examine but is content with
 admiration & vague hope. How wonderful
 is the remedy: how unaccountably ~~it~~ has it
 succeeded in so many different diseases!
 Thereupon it is vaunted as a Panacea or at
 least employed indiscriminately, on the un-
 grounded expectation that, what is good for
 one, must be good also for another distemper.
 It may be so - if in that other distemper be
 also found the morbid action w^h this drug
 specially controuls. This is a Scientific
 probably & w^o prompt minute inquiries
 into the analogy of diseases and the special
 actions of drugs. The Scientific probability
 is far removed from the thoughts of those
 who advocate a Nostrum. They have
 a distinct faith in the virtue of the drug
 & w^o resent investigation as arguing doubt
 in so useful a medicine.

3°. We may cease multiplying remedies &

Refrain from indiscriminate extension of an acknowledged specific, and yet the reign of prejudice has not closed. The mind is still content to see a virtue in that drug - a mysterious virtue to which no scientific limits should be set. Indolence may foster this contentment, but its origin lies in the old prejudice that remedies are good & that the goodness of a remedy is sufficient reason for its success. This indolent belief in the specific virtues of a drug may be useful by checking its indiscriminate application in other diseases; but on the other hand it is hurtful by discouraging its scientific extension. Thus Quinine was long fettered as a febrifuge in ague; only lately has it been raised to the rank of an Antiperiodic. Thus colchicum was restricted to the gouty paroxysm till science indicated its appropriate application for the removal of Urea -

Such are the prejudices in favour of external appliances & in distrust of the vital forces. From these it is no easy matter

Altered from Dr Thomas Reid's description of In.
stinct in childhood. [Hamilton's Reid. p. 33].

for the practitioner to become wholly extricated. The theorist may critically demonstrate the absence of all proof in their favour, but still the practical man cannot shake off their sway. The theorist is not compelled to act - is free to criticize the prejudices of action, and to find them what indeed they are, w^r. rational principles. The practitioner on the contrary is impelled to act - often when Intellect can furnish no certain data: he is glad to fall back upon his Instincts, w^h at this stage are more useful to him than the gift of Reason alone w^d be.

Here he fully sensible of his condition in that early period, & capable of reflecting on it he w^d be like a man in the dark sur-
rounded by dangers where every step he takes may be into a pit. Reason w^d direct him to sit down & wait till he c^d see about him. Whereas yielding to his instincts he finds his activity & credulity more useful. The better instructors on the whole than Reason could be; they furnish a stock of materials for Reason to work upon.

Has he done so?

they make him easy & happy when reason could
 serve to suggest a thousand tormenting anxi-
 eties & fears" - Thus without convictions true
 or false the practice of Medicine would misery.
 Hence apparently, by a merciful arrangement,
 even false convictions are not shattered in
 an hour; little by little as definite truths
 are gathered the undefined clouds of
 prejudice fade away, and the light of
 Reason prevails. The practitioner no longer
 thinks that every unusual symptom is dis-
 ease nor that every disease is to be summarily
 attacked. In his own bustling way (at some cost
 to his patients perhaps) he has become in-
 timately acquainted with disease as in-
 tertwined with health & subject to laws.
 So also he no longer hunts for a panacea
 nor gives a remedy in an offhand way be-
 cause good in some other distemper: but
 amid his numerous & occasionally hazardous
 experiments he has learnt the requisite re-
 sponse of organic to inorganic nature &
 the nice adjustment necessary to secure a
 Therapeutic result. On the whole

as a man w^d not often care to "live o'er his childish days again" tho' he has no doubt it was all for his good & that he w^ont be the man he is without them — So the Rational practitioner w^d not desire to re-enact the barbarous or absurd deeds of the Infancy of Practice tho' he w^d promptly acknowledge that many Remedies & modes of treatment (of great value & constantly employed) must be traced back to the experience amassed in those earlier days —

We suppose the practitioner, emerging from the sphere of prejudice, to be now guided by Reason in selecting fit remedy for true disease. One further step alone remains viz to anticipate the appearance of disease & by judicious prophylaxis to avert it.

On this highest branch of the practice of Medicine few remarks need be made. It is clearly the furthest removed from mere instinct. Indeed, by the timely adoption of ^{preventive} ~~adaptive~~ measures, instinct is rarely startled by the appearance of its appropriate stimulus. In this phasis

of Practice Intelligence appears in its highest proportion to the active powers. Thus during the Stage of prejudice the active powers are most developed - while Intelligence - unimpededly called into partial play - can with difficulty lend occasional assistance. During the Second Stage of Reason, Intelligence, with a fully organized body of Truth, counsels & aids the Active Impulses in their Contest with prevailing disease. At length in this third Stage, the Intellect obtains pre- dominance, assumes the initiative, by preventive measures averts the necessity for the execution of the Instincts.

With one further remark we conclude this Section. As we advance from the lower up to the highest forms of practice, we find a change in the character of the Physician. There is of course a change in his intellectual Condition. But, apart from this fact, gradually he loses more & more the aspect of a solitary Combatant (fighting against individual ailments) & assumes the position of a public character. He acts

in combination with his medical brethren seeks the co-operation of the State in general measures for the public health. He cannot, as a single uninfluential man, prevent the crowding of city lodgings, the engorgement of city sewers, the intoxication, the pauperism, the contagion which are among the chief causes of disease.

No: but neither can he any longer be content to sit still while disease rolls on in her accustomed channel - destroying thousands. And every now & then tossing to him some miserable patient whom barely he can save. Therefore he bestirs himself to further Sanitary & even Social Reform. Such reforms must be carried on by public authority; therefore he seeks to interest public statesmen: Such reforms may die away if not enforced by the co-operation of a united heart, and intelligent profession; therefore he favours the lights of Science & therefore he labours to promote union and good will among the numerous sons of Aesculapius.

Part II. The Theory of Medicine.

Before entering upon the more strict consideration of this Part, a few words may be necessary in illustration of the word Theory. That any such word as Theory, intended to convey a general notion, should be used by all thinking or even by all writing men, in one unalterable sense could not be expected. The same vagueness of meaning is attached to other words of like category - such words for example as Medicine, Science, Art -; but the peculiarity in regard to the word Theory is its employment in two most opposite spirits - in the spirit of deep contempt (that is a Theory!) and in the spirit of admiration - a subtle Theory! -

This strange fate may be explained by the Aristotelian Maxim "The corruption of the best becomes the worst": for as nothing intellectual can be compared in value to a true & broad based Theory so nothing can be more light than one that is visionary.

I incorrect. They are as different as a castle in the air and a true castle upon the ground, yet both receive the same reception & appellation. At present the term is of dubious meaning: by this the worse sense may be so readily suggested that it will be necessary to abandon the word & to use another as often as we mean that Theory of Medicine which is worthy of praise. Meanwhile, retaining the term we must necessarily explain it.

It denotes not the objects or phenomena which are viewed, but the view taken of them by the mind. The view however which the mind takes of the external world may be either thro' sense or thro' the Intellect in the Senses. The view is merely thro' Sense when by an act of perception the objects and phenomena are seen to be & to happen as they are & happen - : but the view is further thro' the Intellect when the gaps between these intimations of sense attract attention, & obtain a significant interpretation. These interspaces - which are of the utmost importance in a world of

Constant Stir - of oft-recurring and disappearing phenomena, constitute the proper problems and pabulum for the Intellect. Now the distinct articulation of a judgment by the Intellect upon such a problem is termed, a Theory.

The senses it may be observed, never can give a theory. This even the vulgar know; for they employ the term to indicate that w^h has not been the product of the mere senses. They use it indeed contemptuously as if what is not the product of the senses must necessarily be nonsense. The reverse is more near the truth; as professor Ferriar has well shown that without the Intellect the senses w^d give us ^{only} unintelligible nonsense. But abating this dispute, we state that the product of the Intellect - by us termed Theory - is not to be despised as such - altho a special example may be contemptible among other products of the Intellect -

In Medicine the phenomena, appealing to Sense, are a diseased body and a world of external influences acting upon

it - I amid that world the Doctor's Compound
pill: By & by there appears to sense a body
Convalescent - Between these scenes
what busy action in the body & in one word
what a field of Investigation for the
Intellect. The central fact wh involves the
Intelligence is Recovery from Sickness
(the therapeutic action) - and when the
Intellect can fill up all the gaps from
Sickness up to Recovery, it has mas-
tered the whole Theory of Medicine in
that instance.

After these preliminary remarks
and in the further consideration of this
Second Part we shall adopt an order
closely parallel to the order selected in
the First Part.

We do not intend to view the Theory of
Medicine objectively: i.e. to state what are
the theories (at present established thro'
out the Schools) regarding the pheno-
mena of Recovery from Phthisis, Ana-
sarca, Fever or other disease. Still
less is it our intention to view the

various theories historically & to narrate the mode in which each was first suggested & then refuted or subsequently pushed forward & elaborated.

As our attention was restricted to practice, in its subjective relations to the Mind, it will in like manner be restricted to the subjective relations of Theory. Practice we have seen originates in the excitation of instincts by appropriate occasions, & subsequently passes thro certain mental stages: Theory also originates in the excitation of Intellectual longings upon appropriate occasions & passes thro peculiar phases of error into the exact line of Truth.

Adopting as before a twofold division, we shall consider - first - the Origin of the Theory of Medicine: - including under that term both the external occasion & the internal motives - : and under the second section we shall point out its subjective History and rectification from Error.

Section I - The Origin -:

It is obvious, from what has been already stated, that certain facts cognizable to sense but demanding the interpretation of the Intellect must

form the proper occasion for this as for every other
 mode of Theory. But each form - it will be found -
 possesses its own special group of facts & places
 all others under subordination. Thus in close re-
 lation to the phenomena we are the objects of our
 view stand the phenomena contemplated in patho-
 logical, Physiological or Chemical Theories. But
 they are either not viewed in the Theory of Medicine
 or are placed in subordination to the central
 fact. The special phenomenon we awaken the
 intellect in the last inquiry - a Convalescence
 or Recovery from sickness. Such phenomena
 occur in the body & cannot be rendered
 intelligible till first we comprehend at least
 some physiological & pathological processes in
 the body: and further - while they occur in the
 body they are due to external agencies and
 therefore again cannot be rendered intelligible
 till external agencies (dynamic or concrete)
 are at least partially comprehended. But
 these admissions only prove that the 'Theory of the
 Therapeutic Relation' is dependent upon
 or rather embraces the theories of Pathology
 & of Inorganic Matter: it still remains true

that the special phenomena awakening Interest to the Inquiry are distinct & separately Cognizable —

In regard to the Occasion what further need be said unless to praise the peculiar attractiveness of such phenomena? The practitioner is drawn on to duty by sights that w^d appal the delicate in nerve & w^d revolt the mere onlooker. nor can he always interfere and thus console himself - he must often stand by the bed of sickness when the patient reveals all that is most loathsome & hopelessly incurable in disease. But to the Theorist or the Medicine is apportioned for explanation & the fact of Recovery - a sight that w^d delight the heart of the most unscientific. Disease there may be but not hopeless: Sickness & suffering there may be but they are seen waning away under the influence of Apollo and his offspring —

And yet again it may be needful to remark that these phenomena tho' alluring to the feelings are sorely puzzling to the Intellect. On the other hand tho' thus presenting a hard problem for solution they

refer to events so important to Man that he who can rightly understand & thereafter apply them, will be almost as the gods to kill & to make alive —

The internal motives, which awaken the mind to this inquiry, are naturally of a more intellectual character than those which are powerful in practice. Yet they also are capable of being clasped as Instinctive & Rational: that is: Man, not only pursues these inquiries from a distinct conviction of the Good therefrom resulting, but both at first and oftentimes in his future course is roused to the pursuit by Instinct. These instincts are two in number: Curiosity & a Love of the Sense of Power.

That Curiosity is an Instinct — & as such — a powerful motive to Inquiry must necessarily be granted. Perhaps some will restrict its range to the mere gratification of Sense; but the longings of the Intellect to know the Causes & relations of things appears identical in its essence to the longing of the Senses for objects removed from their immediate cognizance.

But how is the love of the sensation or sense of Power influential as an Instinct? Be-
 cause long before the Mind has so discerned
 the truth of the Baconian Axiom as to seek
 knowledge for its 'Commercial' value, it
 has experienced, after each accession to
 its stores of Truth, an indescribably pleas-
 ant feeling of Strength. This feeling is
 revived in its full force & pleasantness as
 often as these stores are contemplated.
 Now they are necessarily contemplated when-
 ever a man undertakes to teach his neigh-
 bour. Hence arises the gratification we
 feel when we have something to com-
 municate & hence conversely the humili-
 ating sensation of having nothing to
 say. And to avoid the pain & to secure
 the pleasure we are instinctively stimu-
 lated to fresh accessions of knowledge.
 Subsequently when Man learns
 to estimate his knowledge as possessing a
 transferable value, he becomes more chary
 in his communications. The gratifica-
 tion of instinct is not regarded as suffi-
 cient, & before undertaking the labour of In-
 quiry & Report he demands a suitable re-

Compence. He still pursues Theoretical investigations and longs for a solution but it is with a distinct expectation of securing some form of Good. The stage of Instinct is passed and he is controlled by Rational motives.

The "Good" in the prospect of which Man enters rationally upon any labour - may relate to himself or to his neighbour or to the Glory of God. Great is the prospective good which promises to crown the labours of the Scientist in the Theory of Medicine.

An intelligible explanation of the phenomena of cure must reveal much of the Divine Goodness and Wisdom. Its beneficial application for the relief of the sick and the preservation of the healthy is equally certain. No less so is the fact that even the rehearsal of such lofty truths both gives singular pleasure to the mind of the hearer and adds a peculiar purity, as it were spirituality, to his temper. It is obvious that similar advantages and yet higher degree may accrue to the discoverer: his intellect is gratified, his imagination exalted & surely his piety is increased.

It is possible that he may grasp at more substantial gain: in due measure such a reward may reasonably be sought: but if the hope of it be our chief stimulus to labour, we do well to ponder the words of Lord Bacon --

"The greatest error is the mistaking or the misplacing of the last end of knowledge. For men have entered into a desire of learning and knowledge sometimes upon a natural curiosity, & inquisitive appetite; sometimes to entertain their minds with variety & delight; sometimes for ornament & reputation -- and most times for lucre & profession; and seldom sincerely to give a true account of their gift of reason to the benefit & use of Men. As if there were sought in knowledge a couch, whereupon to rest a searching & restless spirit; or a terrace for a wandering & variable mind, to walk up and down with a fair prospect, or a tower of Steele for a proud mind, to raise itself upon; or a shop for profit or sale, And not a rich storehouse for the glory of the creator and the relief of Man's estate --"

Section 2: "The development."

The subjective history or development of

Theory is the history of the Man's Mind after it has once been awakened to a desire for the solution of the Therapeutic "Theorem" — Al. Ready we have incidentally mentioned the first step in the development: namely the transition from the more passive state in wh^{ch} its Curiosity is instinctively awakened to the more active state in wh^{ch} it deliberately proposes to itself a settlement of the Inquiry. Looking then to that picture we see the Mind earnestly gazing at the Fact of cure — as intensely on the first as on the last day — but (let us mark it) not so wisely: its earlier processes are faulty; it must pass thro' a History before it attains Wisdom.

That History is essentially a history of Extrication from Error, just as in practice we find it to be extrication from prejudice. The errors from wh^{ch} the Mind is gradually extricated are divisible into Two Groups: those wh^{ch} refer to the Organism manifesting the recovery and those wh^{ch} refer to the External agency influencing or producing the cure — for the problem in Medicine is closely analogous to the problem in Metaphysics.

In the latter Science the main difficulty is to draw the line between what is *Ego* and what is *Non-Ego* — what belongs to the principle within us and what to the principle without us. In the Theory of Medicine the main difficulty is to distinguish between the Corporeal or organic forces and the External Excitants, which incessantly awaken them into play. When the Mind first enters upon the solution of this difficulty, it is almost certain, according to the nature of its previous studies, to lean more to One than to the other Side. If it is familiarly conversant with the structure of the healthy & diseased body, it is at least prone to refer an excessive share in the result to the Organic functions of the Body. But if the numerous Articles of the Materia Medica be better known to it; and the laws of Physics & Meteorology be graven upon Memory, it is human nature for the Mind to apportion the greater share in the result to them — as to forces with which it is best acquainted.

So powerful is this tendency in our Nature — to judge by what we know — that even after repeated exposures of them.

sufficiency of our one-sided acquirements to ex-
 plain the phenomena, we presently renew the
 attempt. The true cure for such errors is
 a prompt study of those necessary branches
 of knowledge with which our acquaint-
 ance is too slight. Into this course the
 honest inquirer is sooner or later driven: a
 continued inspection of the phenomena deepens
 in his mind the conviction that the result
 bears a twofold relation & cannot be ex-
 plained as due solely either to the Organic
 or the Inorganic forces. He abandons
 the attempt to deduce the cure as a neces-
 sary result either of the texture & functions
 of the Body or of the chemical constitution
 of the drug.

Emancipation from the Thralldom of these
 "Images of the Mind" have^{ing} been obtained
 the Intellect faces the work before it &
 finds therein two different steps. The first
 step is to define accurately that Thera-
 peutic Relation wh^{ch} is presented for its
 scrutiny in a rough undefined form
 by the Senses. The second step is to
 explain this definite relation: i.e.

to point out why those external Agencies are best adapted and how they are fully able to excite the Organic forces toward Recovery.

[First step:] It is scarcely necessary to prove the necessity of establishing our ground upon an accurate definition before we attempt an explanation. If any proof were necessary it is amply furnished, by the failure ^{which} awaits every transgressor & by the Contempt poured upon the very name of Theory in consequence of the crude explanations given by men too hasty or idle to define. Logically the case is clear. To dream of explaining an influence while yet ignorant what influences and what is influenced — savours as much of folly as to attempt to prove the accuracy of an equation when the terms on neither side are known — A man may guess right; but a Scientific Explanation presupposes a scrupulous exactness of Definition.

Admitting the necessity of previous definition, some will question whether it forms a part of Theory. The doubt comes very naturally from those who retain the word to denote the unfounded preconceptions of

the Mind - the result of an unbridled Imagination and not the sober product of the Intellect. But if we employ the term to indicate the view of the Intellect in opposition to the mere utterances of Sense, then definition belongs to Theory. A man, looking thro' his Senses without exercising his Intellect, beholds only a chaos of unintelligible phenomena. By his intellect these presentations of Sense are interpreted more or less correctly, into definite facts, and being described in their [supersensuous] relations, become valuable truths and useful Theories. Now the trouble is that any man may direct his attention to therapeutic phenomena & attempt a definition, but if the fully trained Theorist will not define them for himself nobody can do it for him with sufficient accuracy. The uneducated 'commonalty' could give only a very rough approximation to the fact: the practitioner is more conversant with the subject but he views it in another light: he is well educated but he lacks the special training; ^{moreover} he is harassed & interrupted so as to take general impressions instead of definite

⁺ "Ford's Handbook of Spain"

deductions, and he is prone to accept that definitions which admit most readily of application. The theorist, well educated & specially trained, not hurried in his decisions and unbiassed in favour of practical application - is best fitted to examine the complex phenomena and to attain a correct definition.

The accurate determination of a Therapeutic link we have represented as no easy matter. Even the scientific may fail to see it where it is and may suppose it where it does not exist. The people furnish us with more abundant fallacies and with grosser errors. Thus in Spain during our own day they believe that "a Medal of Santiago cures the ague - a handkerchief of the Holy Virgin cures the ophthalmia a bone of St. Martin answers all the purposes of Mercury and a scraping from San Frutos supplies at Segovia the loss of common sense". Need we say that before any Theorist should advance to the explanation of such therapeutic phenomena, stricter definition will be requisite.

Presuming these grosser efforts of the

uneducated and viewing only the definitions of medical men, we find that, from ignorance of disease in its minuter history, or of remedies in their more intimate nature, even they have mis-stated the therapeutic relation, by affirming it where it does not exist or where it exists under greater or less restrictions than those defined. Let us for example consider some of the difficulties caused by ignorance of disease. (a)

Many distempers depend upon want of nutritive food, of rest & mental quietude & on the attainment of these luxuries during a Hospital Course or elsewhere - without further treatment they yield to health - But men ignorant of this fact will add some harmless drug & to it mainly ascribe the recovery.

Again many diseases - (for example dysentery & asthma) are more prevalent during certain periods of the year. At the close of that period they become milder & spontaneously disappear. During the whole time some drug may have been exhibited, & we hear much of the good effects of "a persevering course"; or in despair at the eleventh hour some new

Remedy has been tried with marvellous success; - unfortunately it is not found to answer at the first hour. Again certain diseases are yet more limited in regard to time. They remit or intermit during hours of the day or periods of the month. When the disease is obscure & this feature unrecognized, we hear much of remedies acting like a charm. Thus a

Therapeutic relation may be affirmed where none subsists. It must not on the other hand be overlooked that from inattention to the peculiar modification & form of the disease remedies may appear valueless, when nevertheless they do possess in definite circumstances the ascribed virtue.

(B.) Not only ignorance of disease but ignorance also of the Constitution of drugs will interfere with the accurate settlement of the Therapeutic action. This fact may be briefly illustrated. [1°] We may impute to the whole drug a virtue which belongs only to a part. So the bulky Peruvian Bark were ascribed cures which now we be referred to the few grains of Quina contained in the Compound Mass. So likewise to the vegetable astringents were

referred those effects wh^{ch} were due to the active ingredient - Tannin. Opium also - itself a most complex whole - is now satisfactorily represented by Morphia to which it owes its character as a Narcotic. As to the advantages to practice from the discovery of the active ingredients we need say nothing, but it is obvious that in regard to Theory our view of the relation between disease & remedy is vastly simplified.

[2^d]. We may restrict to an individual or species virtues wh^{ch} belong to the whole genus. Thus by increase of knowledge Stagshorn & burnt feathers become more intelligible as more modes of supplying us with Ammonia: the virtues of Sulphur ointment are extended to unctuous substances and the astringent properties of one bark are found in another. In former years with such restricted definitions, explanation was impossible, true Theory languished & there reigned a profound belief in Specifics.

^{and} From these remarks it will sufficiently appear that a distinct statement of the

Fact must precede Scientific explanation - secondly, that this labour naturally devolves upon the Theorist and thirdly that it is attended with unusual difficulty even to the Scientifically Educated.

These preliminary difficulties of the first step having been fully overcome, the second step - explanation - yet remains to complete the Theory. The essential feature is, an intuitive perception of the full adequacy of the ascertained means to effect the definite result. Such a view of the 'modus operandi' is a luxury to the Intellect, but it requires the Concurrence of a Sound & vigorous Imagination. Imagination, not as a faculty of conceiving error but as the faculty wh represents the truth, must powerfully hold up to view in one common field, the Pongeries of influences wh in definite proportion, Concur to affect the Organism — and, on the other hand, the Organic Functions ranged in intimate sympathy to meet the alterative & external forces. When this act has been fully performed, so quick thereafter or shall we say therewith is the Intuitive Dis-

57.

Permanence of the Fit and beautiful Concurrency of the two Series that the intuition is itself often regarded as the work of the Imagination. It is not so. To the Intellect alone belongs the function of perceiving the relation between things whether these be presented to it by Sense or represented by Imagination. The latter faculty is indispensable for the act of Explanation just as the Senses are indispensable for the more simple acts of perception & definition. But in like manner as the Senses without the Intellect give a mere Chaos of fleeting visions, so Imagination without Intellect can only give a confused picture of inexplicable mysteries.

Part III.

The relation of Practice & Theory.

The practice & the Theory of Medicine stand to each other in a relation of mutual contrast and mutual influence.

(1°) They stand contrasted to each other, as we have already seen, in regard to the external occasions wh^{ch} excite them and the peculiar impulses first awakened. Still more do they differ in their aim and in the general character of their respective votaries. In regard to the latter points of Contrast we will offer a few remarks.

The Confessed aim of Practice is the outward good of the patient. It may or may not be the ultimate aim of the practitioner but in every case it is the sole object of Practice. So it increase of knowledge, completeness of explanation, strictness of definition are nothing, - unless indirectly as conducing to ~~the~~ ^{the} power of effecting the Good of the patient.

On the other hand Truth and not Good is the proper and direct aim of the

Intellect : So that the results of practice are not valued as securing health to the patient but as furnishing instances for illustration of truth. If more instructive results are presented in the simpler procedures of Nature Theory prefers them, and discountenances the perplexing interference of Man.

It is obvious that the tempers of men aiming at objects so different must unconsciously be moulded into contrast. The One must become a man of action, prompt, impulsive & forcible, but the other a man of contemplation cautious persevering & correct. It is likewise manifest that certain tempers will originally be better adapted to prosper in the one than in the other pursuit. The benevolent social manner & the quick discernment of this man, possesses well for him to engage in practice heartily & with acceptance, whereas they m^t render the solitary researches of the student irksome to him & cautious protracted investigation too tedious a burden. For such duties another is admirably adapted by natural disposition white shyness and a pre-

ponderance of the Contemplative Temper
unfit him ^{on the other hand} ~~as~~ ^{for} the quick turns
and bold deeds of Practice —

[2.] These two phases of Medical Labour
not only stand to each other in a relation
of Contrast; they also occupy a position
of mutual influence. The researches of
Theory conduce to accuracy in practice:
the decisive interference of Practice will
both generate new facts and test the
value of old explanations. We shall
advance a few instances of the advantage
resulting from a free intercommunication.

(A) 1. Practice is useful to the Man
who seeks thoroughly to understand the
therapeutic link by shewing the exist-
ence of disease where - in a state of
quiescence - none w^d have been detected.
Thus to the Eye there may be no mani-
fest disorder: but let there be adminis-
tered a minute dose of Calomel wth in
health w^d scarcely be recognized. Sud-
denly the strangest revolution will be
awakened & a morbid constitution be
revealed.

2. Practice is useful to Theory by

7 p. 339. Medical Notes.

Shewing the difference between diseases w^h except in their refusal to respond to similar remedies, appear in all respects alike. Thus Dr Marshall Hall remarks on the diagnostic value of Venesection as enabling us to discriminate Inflammatory Fever from a state of constitutional Irritation. Thus also the diarrhoeas of the Scrofulous, the Nephritic & the Dyspeptic patient are shewn to be different ailments by their behaviour under the same empirical procedure - no less than by delicate Concurrent Symptoms and by post mortem disclosures. In like manner we learn to distinguish between the Anasarca of Acute Nephritis - of Stearotic Degeneration and of Cardiac disease.

(3). Practice is useful by suggesting the similarity of distempers w^h but for their ready response to the same remedy, present too few points of resemblance to warrant generalization. This advantage is pointed out by Sir Henry Holland: "The influence of certain Remedies & particularly of bark in curing

even the most anomalous varieties of these intermittent disorders, is a fact of great interest. Like the use of Mercury in obscure syphilitic affections or of Colchicum in the most irregular forms of Gout, it enables us to denote & class together symptoms apparently the most remote in kind, but which presumably could not be thus relieved unless depending upon some common morbid Cause. . . . This it is which gives peculiar value to all that illustrates the action of these remedies. They are the interpreters of facts far beyond their momentary effect; & of connexions between morbid states which are in no other way so definitely made known to us.

4. Practice again is useful by furnishing instances of Therapeutic action, the appropriate pabulum for the intellectual digestion of the Theorist. It must however be remarked that in such a presentation many instances (adduced by the practitioner) are valueless - are insoluble problems from the indefinite nature of proof as to the disease cured & the agents probably concerned in the

result. In former years when the spirit of polypharmacy prevailed, & a mixture containing four hundred pharmaea was a compound in use, the theorist might well remonstrate or despair for how could he detect the single golden grain in that weight of sand - In the present day, however such a complaint is more rarely reasonable.

5. In the way of Scientific Experiment, practice may be specially directed by the Hand of Theory, ^{in order} that by careful multiplication of instances under various conditions the element of Error may be eliminated. In such a procedure practice becomes subordinated to the purposes of Theory: the object of interference is no longer the good of the individual patient but the determination of a general Therapeutic Law -

6. If from the facts that elicited the Intellect affirm a Therapeutic Law, practice is still ready (even ready) to Challenge its correctness & to Enforce yet further Experiment & closer definition. At this point however from incompetence in the Man who seeks the explanation, two

errors may arise. First: The law, being correct may be prematurely denied on the evidence of Experiments unfairly performed. for example. from the death of phthisical patients under the exhibition of food-liver Oil. Some w^d deny that Oil is the element required by the tubercular diathesis. Or secondly, the law may be temporarily established to the subsequent discredit of Theory - because Experiments too few in number to be conclusive in argument have been successful in practice.

(B.) And now we must consider what the Theorist in his turn can offer to the busy practitioner -

He can gently supplant his prejudices against disease & his partial fondness for remedies by more correct views. He can shew by distinct analysis of numerous cures that the disease w^h has been heroically assailed - *Coute qui coute* - w^d have disappeared in half the time had it not been fed by the rash hand of Interference. By similar analysis of cures the drug w^h has been purchased,

at a fabulous price - imported from distant regions & even christened by the name of 'Italy' is demonstrated to exert no perceptible influence except in its native Country & when accompanied by a healthful regimen. Thus gradually, by the insinuation of correcter views, there has been established that most useful branch of Modern Therapeutics - the paradoxical practice of Non-interference. But the truth has been accumulated by Reason to take the room of prejudice - a kind Providence appears to shield the bold empiric from all the shafts of mere ridicule -

2. When the progress & history of diseases become known - when they are found to be in most cases, natural [not sent as the forced thunderbolt swift from the hand of Jupiter] but growing up from their own seed in an appropriate soil under favourable influences} prophylaxis soon appears as a branch of practice. But whence come these true views? They necessarily result from a scientific inquiry into morbid processes

they constitute the theories of Pathology; but Pathology is itself in turn embraced as a Component part in the General Theory of Medicine.

3. Practice effects many cures, but as many or more are effected by Nature. Now it is the part of the Theorist to contemplate both Series — not to confine his view to one district or country but to extend it to every region of the habitable world — nor to investigate the instances merely of his own times but to search into the records of every age. It is needless to say that his Catalogue or Inventory of Cures must be much more extensive & valuable than any number we can be embraced by the personal Experience of one man in one age and Country. The whole list is placed at the service of the practical man: only he should remember when he borrows from it that it has been gathered by the Researches of his non-practising brethren — the Theorists.

4. Theory however is not content with a bare enumeration of such in.

stances: its first step - as we have stated - is to define the Therapeutic relation. The result is, in most cases, a beautiful simplification of previously complex phenomena with difficulty all remembered. For from amid the chain of morbid processes that special link is detected on which with crushing power falls the full force of the remedy, - and, from amid the numerous ingredients of the Galenic preparation is picked out the special agent truly active in the cure. To the practitioner there results a twofold advantage: 1st: his Memory is eased by the substitution of a simple for a more complex formula; and 2^d: he is saved from needlessly regarding the non-essential morbid processes or from adding unnecessary articles from the lists of the Pharmacopoeia - Such is a mere outline of the influence w^h Scientific "definition" must exercise on practice.

(51) Finally, there remains for consideration the influence of the Theor.

great Explanation. On this point there have been
 ascribed to men prominent in Medical Science
 outrageous doctrines w^h they would promptly re-
 pudiate. They have been represented as calling
 upon practitioners to delay the exhibition of Remed-
 ies known to be useful in disease - until
 the manner of their operation shall have been
 satisfactorily explained. Such a call, were it
 really raised, w^d of course be disregarded by
 the practitioners & discountenanced by the
 true lover of Medical Science. It w^d be dis-
 regarded by the practitioners because in ur-
 gent cases & in imminent danger he is
 impelled by very instinct to interfere. It
 w^d be discountenanced by the lover of Science
 because Theory w^d be thus rendered subser-
 vant to practice & be no longer able at
 its own pace quietly to pursue Truth on
 its own account. But the fact is that
 "Explanation" exercises very little influence
 directly upon practice, it is useful chiefly
 by engraving on the memory the necessary
 definition. In itself it is a luxury for
 the Intellect. In that moment when the
 full & exquisite adaptation of external
 agencies to a definite phase of dis-

case becomes clearly revealed, there is a thrill of mental satisfaction - itself an ample compensation for the preceding necessary toil of definition. So this joy the practical man may attain - but without he must be content. No other influence with explanation exerts upon practice than by rendering the practitioner more mindful of the exact limits of the therapeutic relation.

In illustration of this statement we may consider a special instance. Let an objection be stated thus: "The practitioner gives hyposulphite of soda in case of Sarcina Ventriculi - because he knows the reason of cure - the destructive action, namely, of the disengaged gas upon vegetable life.

The answer is twofold. 1°. He gives hyposulphite of soda in the hope that it may be effective - not because he knows that it will cure ^{nor because he knows} ~~that~~ the manner of its action. It is really a therapeutical experiment & not a practice founded upon explanation. 2°. If hyposulphite of soda really cured men labouring under "Sarcina" that would be a fact for

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Theory to contemplate. Until the fact is certain Theory can offer no definition & without definition explanation is impossible. The fact being certain Theory w^d define the relation thus: that the gas, as a proximate external cause, destroyed the fungus as the proximate internal disease: then grouping the external series up to the proximate remedy & the internal series up to the proximate disease The Mind w^d explain to itself how the Salt cured the man. But what advantage w^d the practitioner obtain? If he is sure of the fact - he will adopt the practice whatever be the explanation - & if the explanation be known to him he merely adopts the very same practice with greater mental satisfaction.

Such briefly stated are the mutual influences w^h Practice & Theory exert. Their respective representatives exert this advantageous influence upon each other even unconsciously and without design: but when they cooperate designedly with mutual forbearance and sympathy the advantage to

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both parties is immeasurably increased.
In the present day, mutual good under-
standing widely prevails with manifest
profit to the public and to the profession.
May we hope that the future representatives
of Practice & of Theory - now sitting side by
side in friendly study, may be destined
yet further to extend that advantageous
harmony —

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