On Therapeutics
Past and Present.

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Therapeutics, viewed whether as a branch of Medical science, or as the great element in that of preserving and restoring health, is a subject of so much interest and importance, and affords so wide a field for speculative inquiry, that it is calculated at all times to engage a large amount of the attention of those who have devoted themselves to the study of Medicine. As might have been expected, it occupies no insignificant place in the history of Medicine, being in fact, for a long period, almost the only branch of the science which received special investigation. The general aspect which, from a review of its past history, the science presents, is that of great uncertainty and fluctuation. And there can be little doubt, that this circumstance affords
the main ground on which the reproaches of medicine address their conclusions.

And even in regard to the present condition of therapeutics T. Christian thus speaks: “Therapeutics considered as a branch whether of medical science or medical art, and compared with the other branches of Medicine fundamental or practical, is in a backward and unsatisfactory condition... for a good many years past we can neither point to a single plausible or generally admitted theory as to the actions of remedies.” However unwelcome such statements may be, as indicating the unprogressive position of this branch of medicine, they are, notwithstanding opinions emanating from a source which prohibits at one and the same time and for a moment entertained, with regard to their correctness, and the only topic, therefore, which can properly or legitimately be submitted for consideration are, the causes which may operate in elucidating the advance of this department of medicine in a detailed examination of these causes.
even were we competent to do it, would
infer a discussion of far greater com-
pass than it would be expedient to
attempt within the limits of this essay,
and we shall but indicate, therefore, a
few of those which may appear the most
important.

There is one great leading cance, under
which all the others may be comprehended
or classified as subordinate cances,
namely, the difficulty of obtaining a correct
comprehensive induction of facts, a
difficulty which is felt more particularly
in this science, from the peculiar nature of
the subject-matter of which it treats, and
from the special fallacies to which its
cultivators are exposed, and against
which they have constantly to contend,
in all their investigations. And under
this general head, we would inquire,-
first, whether there is anything in the past
history of the science which can have a
prejudicial influence upon its present
condition? Before doing so, however, and
in order to avoid as much as possible,
Subsequent unnecessary details we would specify your errors, which those, who are proceeding the study of any progressive gal

science, are very apt to entertain. And which lead to results which are often very difficult to obviate, viz. 1st forming gen-

eralizations previous to a comprehensive and exhaustive examination of every topic which bears upon, or serves to elucidate

the subject under consideration:

2dly, the facts from which a principle has been deduced, not being sufficiently harmonizing or not following to invariably

a certain well marked order of things, as to warrant their being made the ground or basis of a general principle:

3d facts themselves may be false, i.e. notions not in harmony with realities, incorrect inductions resting upon defective obser-

vation or experiment; and

4th, by an undue and unwarrantable attachment to Authority, in matters upon which suspicions may exist, but which

are capable of being removed by a consideration.
Although these remarks are applicable to all the inductive sciences yet there are special reasons which might lead us to conclude, apparently, that the science under consideration would be very liable to suffer from these errors. And while the history of the science affords abundant proof that some of these were certainly committed, it is difficult to estimate to what extent others existed, or how far their injurious effects may still be in operation. A brief survey of the science, as it existed, prior to the commencement of the present century, may serve to disclose the reasons upon which this suspicion rests.

It is, however, evident, that the science of therapeutics arose with the practice of the art of medicine, and must have consisted at first of a gradually increasing collection of apparent or seeming facts. At a very early period, certain theories began to exist as to the actions of remedies, and while from age to age, these varied in their nature and tendencies they excessively exercised the minds of men towards the close of last century.
a powerful influence on the practice of medicine. More or less closely connected with certain great pathological principles, in which attempts were made to refer all disease to one common source, these theories were founded upon some supposed physical or vital properties inherent in the animal economy. Towards the beginning, or soon after the dawn of the present century, an entire revolution took place in medical opinion, owing to the fallacy of all the pathological and therapeutic theories becoming apparent. This was doubtless due to the establishment, by Haller, about the middle of last century, of the science of physiology, as a distinct branch of Natural Philosophy, and as the data, upon which these theories were founded, were swept away, the science was reduced, as at the first, to a mass of unclassified facts.

But the question which, naturally arises in view of these statements, the results of careful and accurate observations, and have we any good reason for supposing, that the early cultivators of medicine were and adequately impressed with a sense of the very great caution required, and
with the very many fallacies which may mislead in endeavoring to establish the facts of this science? We feel inclined to reply in the negative to this question, because it would seem, from their dealings, as if they had misunderstood the very system, upon which such investigation must be conducted. Their method of study was essentially deductive and not inductive; they founded a theory, and then proceeded to obtain facts which, they thought, should support and establish this particular theory they had adopted. But some such impression as this existed at the beginning of the present century, there is reason to believe, from a remark made by Dr. Christian, when speaking of this subject and of the revolution which took place in medical opinion, as: “A great revolution has followed and facts alone had come into demand.” But the position in which men were placed was very peculiar, and however strongly they may have felt the necessity to be, of possessing more accurate data, they must have been compelled to abide, more or less, by the opinions of those who had preceded them. With regard to the influence which
These opinions may still retard the advance of the science; it is difficult
to arrive at any conclusions, but as it is
evident, that, the manner in which it
was studied, must have been eminently
adverse to the observing and confirming
of facts, it might be prudent to regard
with considerable suspicion, all state-
ments which seem to derive their prin-
cipal authority from observations of
that period.

It is plain, we think, from what
has been said, that the error and un-
certainty which for so long a time pre-
vented the mode of observing and
classifying facts, could not fail to work
and influence for evil, even down to a
period within the memory of living
men. And even at the present day there is
too much of the disposition evidenced, which
characterised the researches of former days.

Although a better spirit prevails as to the
necessity of obtaining correct statements of
fact, yet how frequently do we forget the num-
berless fallacies which under all inquiries
so liable to error, and which may render worthless many and extensive observations obtained at the cost of much labour and time.

There is a difficulty which has not appeared to us to have received that amount of attention which its urgency demands, and which the importance of the questions involved in the consideration of it, call for. We mean the great variability in the external condition of individuals, which modifies the phenomena of disease, and more particularly, the effects of remedies. The experience of one man as to the effects of a remedy, may be reversed in that of another, or even in his own at another time, under apparently the same circumstances. Not because in the former case, he had committed the common fallacy of Non Causa pro Causâ, but simply because his observations had not been sufficiently extensive, or his appreciation of them sufficiently high. It seems to us, that it is not enough to give an account simply to give an account of the symptoms which accompany a particular disease, and the treatment
which may have been adopted, but that there
should also be a minute and accurate state-
ment of particulars, with regard to all three
external circumstances, which in health are
seen to give a characteristic impression to
the different sections into which society is
divided. How far these external conditions con-
continue to modify the action of remedies employed
in a given disease, in a number of different
cases, is a point which is capable of being deter-
mined, only after long, repeated, and extensive
observation; but it seems not improbable, that
much of the uncertainty which has been as-
cribed to the action of remedies, is due, not to
any uncertainty in the power they possess over
a particular disease, but to a mistaken appre-
hension of their influence in a certain modi-
fication of the body. Often has the employment
of medicines, while in the hands of some prove
valuable therapeutic agents, been abandoned
by others as altogether useless and ineffectual,
while, if all the circumstances, which accom-
ppanied these contradictory results, had been
carefully noted, and accurately described, some
important truth might have been discovered.
or a considerable step gained, towards the establishment of a valuable scientific fact.

This leads to another point, not altogether dissimilar to that last mentioned, but more limited in its operation, viz., peculiarities in individual constitutions, which complicate the action of remedies, or in other words, peculiarities of constitution which cannot be traced to the immediate effect of external causes, and which, under the power of certain therapeutic agents, do, or do not produce phenomena, which are absent, or present themselves in a larger number of instances, under similar circumstances. Such idiosyncrasy, necessitate a long course of patient observation, but they must obviously be included under a separate classification, so as not to vitiate the induction of the more general fact.

While there are many more points of a similar kind, which are eminently worthy of being discussed, the few which have been mentioned, are perhaps the
Most deserving of being noticed. There are
many points also in regard to medicines
themselves, that is, as regards their physical
relations which are very interesting and
instructive. There can be little doubt
that actions of many of them as remedial
agents, are very often obscured and to
determine link prevented by the form under
which they exist. And in proof of the
correctness of this statement, we need
only refer to those extracts from their
active principles separated from all
that is extraneous, and which we possess
in a pure and unalloyed form. The
value of procuring such agents is twofold,
first, in the increase which they give they are
acquire, and the greater certainty we have
of their accomplishing the object which
we have in view, and second, the means
which they afford us of obtaining accurate
data for guiding us in our employment of
them in disease, by the little with which
they enable us to make comparative
physiological experiments. It might be
confidently asserted, that had we a larger
unnumber of similar remedies, agents with which we could experiment, and so obtain certain principles which might serve to guide us, in the establishment of facts. The peculiarity of the subject matter with which the science has to deal, the ever varying and transitory nature of the phenomena, under all induction a matter involving much caution and labour, and the expenditure of much time. The means of forming a comprehensive induction of facts, lie to a large extent, within the reach of every medical man, and upon the patience and constancy of their exertions. Their success must depend. But many have not the leisure that would enable them to avail themselves of the means, and many may not be inclined to observe all the precautions and adopt all the care, which the subject absolutely demands; and hence the main burden of advancing the science rests chiefly on those, who from their position as teachers, have this attention more especially drawn.
to it. They, from the results of their own
experience, necessarily limited, and
from the scarcity of materials afforded
them by the experience of others, have,
as things at present with much labour,
without much success. It is not that
men have ceased to be alive to the
necessity of obtaining accurate facts,
or that there is a lack of enthusiasm
in their efforts to possess them, but
because even yet, they have not esti-
med aright, the immense difficulty
which attends their establishment.
Until such time as these cautions, to which
we have alluded, are more generally
observed, and the fallacies which so
extensively prevail in this science, are
more generally understood, until there
is a greater cooperation in regard to those
matters of detail, to which we have referred,
this science cannot fail to be more or less
characterised by uncertainty and fluc-
tuation.