... As by an application of the Principles, misapplied by hired & no objection to their just & cautious Application, if Van Susteren had said that great an omission to the Implyric system, is if Hupman had in any measure attempted to explain the nature of that one may suppose both these of Advantage. Further Reasoning is necessary & the only means of correcting false Reasoning. It is an Art like all others in which we become expert & strong by the Exercise of. I even maintain it is unavoidable; the Implyric system would be nothing without Analogy; I can venture to assert that of a pretty general acquaintance. I have among Implyric I never met with one that avoided reasoning. Nay they not only employ Analogy but if they did not get an obvious one had recourse to a few for this one; nor can any of you, if you examine the state of your minds, say you find it otherwise. If Reason is unavoidable it is only Reason that can render Reason safe; you can never be secure against error till you have seen and mind it. I shall add another Reason for the...

These are the few propositions to be carried with you & which I mentioned not satisfactorily yesterday: that Analogy is unavoidable in an Empyreal Plan, that it should be extended to more & more general facts, is truly Reason, & being thus extended a little further, becomes Dogmatism. Analogy, Reason, Dogmatism, which in my opinion are all one, the same thing are necessary for bringing out the particular facts that are to be the Foundation for the whole & the surest means of avoiding Fallacy. Reason is also necessary because unavoidable to the human mind. And I may add as an Argument a possibility that this method had been of considerable use already, & if so in a short time, how much more so will it be in a much longer time. You will determine with me that we are to cultivate Medicine upon a dogmatic Plan, taking in the most valuable parts of the Empyrean Plan. We are to lay our Foundation in Deduction and History. Our Tasks are to be collected from the Art itself & we are to attempt an Analogy Methodica, that is, a Reduction of Diseases into Genera & Species. Plutarch very judiciously attempted this long ago but his Plan was neglected, till advanced within this 30 years look it up; others have touched it, but their labour is small in comparison of this & the Work is still but begun. Galen in ordinandis Morborum Differentiis teaches the foundation says that we need a different of success. "Specimen Se" — But that work for labour is still at a great distance, and may come sooner at it by the study of prosecuted
mon remedy indicates a Disease very much of the common Nature, here Chemistry—
There is no building upon a Foundation of Empyriom, without Dogmatism. How is
the whole to be conducted? This knowledge to be acquired? Shall it begin with Empyriom,
step here, or proceed to the study of proximate causes? We must employ more or less
of the Empyriom Method, & must unite our
facts, it will be necessary in any event between
so as at the present. There is no reviving a town
of Practice) without a set of general Rules, &
last are only a Course of Institutions. Mer-
ticular, here deserving your attention is Experi-
entia laudatoria & alget. What we know has
been entirely from Dogmatism, & stripped the
trifling Empire of what he gets from the
Dogmatist, he will appear a naked unadorned
Animal, a shapeless unlighted bulb,
While I acknowledge that Dogmatism has done
much mischief, I say it has done good upon
the whole, & the nations attending it may
In guarded against by the means I have hinted out. I alluded the system was affected with almost no small imperfections, but there were the matter too far, & the objections lay mostly against it as a system. So as such, they should stand there is one way to order, that system gains neither respect in the whole world. Partly, it has also several ill effects. The several parts of Dogmatism turn so much in a circle that we are said not to know any of the facts till we know the whole; but this objection is common to it with all the sciences. The I admit then, general objections yet we are masters of many useful particulars in system, & I think we are at liberty to cultivate it. I have warned you already to shun everywhere guard you against mistakes where I see occasions.

I should now proceed to the several parts with which Medicine comprehends, & say how they are to be managed.

- Lect. 12th, Nov. 27th.
- General Plan of Course of the Study of Physick.

I can by no means say how a course of
Physick are as it were the analogy of the human soul; they are necessary, not as only business, but as important. Yet it is not our business whether they be taken from Aristotle or from Locke. As the study of Criticism and Morals is necessary; the first is an ornament, the other necessary to the understanding the operations of the mind. Books have been lucky in having the Divinity first, but these other branches belonging to it; amongst the rest lie which make them a more ornate Physic. As every branch of natural knowledge; therefore the Mechanic and Mathematical right to learn. From a stage for mathematics which lately have we have almost fallen into a total neglect of them; but this at a move is more dangerous than the other. Mathematics are not only necessary for Physicology, but for the other branches, and necessary to elucidate the false application of mathematics. And I would even recommend not to be content with the knowledge of the general parts of Mathematics, mechanic and hydrodynamics, but the whole. There is a natural connection between every branch of natural knowledge. Chemistry has been considered as a branch of Physick, but most unw...
I apprehend, but I ought to be studied with
a philosophical plan, without which it cannot
be of use even in Medicine. It must not have
gained too set or any limit to their
Medicine. Every fact in all these sciences have
connection with almost every other. But you
will observe consequently that the knowledge
of the several topics upon which in the different
sciences the student has to operate, must be
studied, that is to say natural History, this
is necessary to the knowledge of the other sciences
as also this of Medicine. Natural History has
been divided into three parts; Botany, the first,
which has been cultivated chiefly by Physicists;
It may be cultivated as soon as the un-
derstanding is ripe to comprehend it. The
second is Zoology which may be also taken
as soon as it can be comprehended, but it
will in general be better to let it alone till
Anatomy is understood. Next Microscopy
which I think is not properly to be comprehended
without Chemistry. I would recommend this
advantage to you to be drawn from the whole
of natural History viz. that of systems, genera
of species. This has not been applied to any part
of science, but natural History, as in the rest
of latter only to Botany. I have heard that the
Neotaxis Methodica is properly the first step
in our system, and has fell short of the Perfection
it might have acquired from an adherence
on the Leader of Method. The next step is the
knowledge of the human Body. It would be
best here to convince you of the minute
Existence it would admit of, or to say how far
it extends, is that not only human but compar-
tive Anatomy is to be studied. The prosecution
of this I shall leave to your Professor, I shall
only say that you are to consider it chiefly as
a work of Memory. Many means might be
suggested but I shall mention only one, that
is the frequent application of the Parts to their
use viz. to Physiology in which your Professor
supersedes me. Now, then preliminary observa-
tions being finished, continued the work
The proper study of the Art of Medicine is not to proceed to the consideration of the proper study of the Art of Medicine. This may all be comprehended in the definition of the Art of Medicine, for the actions of the human body, as well as the acting and intermingling of many of the means are employed among these means. It is in the Art, the relation that the human body bears to every thing about it. The course of Practice says Boerhaave, "et disciplina est.

It is a collection of Doctrines & principles to be applied to the individual, but these cannot be well understood unless considered in the abstract. In the cure of any disease, hardly any one symptom is considered but with regard to others, & so in treating of the cause. At first sight it will appear that these general Doctrines apply to a great many of the symptoms, but this must be considered separately and in a proper order. Boerhaave makes his Division into five parts, namely, Physiology (Pathologia, Statica), Hygiene (Therapeutics), The first treats the Doctrine of Health, the second the doctrine of Disease, the third 

Definition of Medicine

Medicine is the Art of preserving Health, & curing Disease; here it is defined by its end & purpose, this would seem to require an explanation of the terms Health & Disease, which cannot be left to common experience and apprehension. In its full extent it takes in other animals comprehending the Domestic & farm animals, & is confined to the Health & Disease of the Human Body. I have made it an Art, but it has been considered as contemplative & as a science.

Boerhaave of these "corum" receives as such.
But this Division is not good.

I might mention a new Division of yours.

We began with Physiology, a.

Let us now throw out, you will see that it is a Doctrine not to be understood till after the Practice (Hygiene) united with the Therapeutics in this that the whole may be divided into the contemplative & practical; for I think Hygiene may in great measure be neglected in our Institutions, as being only a repetition of the cause; I would then propose another which has been followed by later Writers, & reduce Medicine to three Parts; the first, the b.

In a morbid state, which we call Pathological, comprehending all the foundation of the mind; the third I would call the Doctrine of means or Therapeutics, and you will see that our course will be nearly Therapeutical.

It explains that Constitution of the organs by which the condition of the mutual action of one another, on which Health depends. Health is the condition of the body by which the several functions are performed with ease.

And if I consider the whole, I find it difficult to define a proper order & Method. Different ones have been proposed. There are several sub-subjects treated upon, from particular to general, or from the more simple & easy to those that are more complex & difficult. This can not be done more in our branches, than the sense of direction or due proportion of body & parts is to be had out of its place. The second is that as our general purpose is to explain Cause & Effects we must begin with Cause, or with such facts as are previous in Nature to other facts. We shall on some cases find it prudent to make an
exception to the general rules and acts the like one of the human body, surviving in a bird, & therein being caused by effects of one another, take the following remark. If we look into the human body, we see it as a system of tubes, conveying fluids from one part to another, & nothing is more essential than circulation which when it ceases in the whole body, life ceases, when in a part that is affected with disease. But when we consider the heart as the prime mover, we would begin with it; but on the other hand, whatever power of motion it has in itself, it cannot be the cause of death, as the nerves. Therefore there is some function previously necessary that is in the nerves, which we trace to the brain, and springing this length of way as yet we avoid a bird in tracing the functions. But, on the one hand, stop the heart by cutting off the communication of the nerves with it, on the contrary, of me cut off the communication of the blood with the brain, by means of blood-vessels, to stop the evacuation of its functions. But we may still consider the brain as more primary, as is simplified by the case of the sleeping animals, I would then conclude that the functions of the brain & nerves may be considered as the primary part, and that may be considered as the first cause, upon which, more or less, all the other functions must depend. I would accordingly begin this way but this doctrine has not been delivered. I shall not attempt to do it immediately, but will perhaps try it afterward; but before I make such an attempt at any time, I must be guided by my experience, that is to say I must first be satisfied that I shall be able to say anything worth your while upon it. I am therefore to begin with the circulation, and then proceed to the brain & nerves, & last of all to the natural functions. As Mallet in the slowest book of his "History" is to be a sort of text-book, I must keep to him as much as possible. He gives the
Lecture 1st. 11th Dec.

I would recommend to you not to read the large work of Haller, until you are at least to understand the letter, as your time, if you have any thing considerable to do, will not admit of it. I am also to recommend the book full study of Anatomy before you come to this place. I shall keep as close to Haller as I can when I am to depart from him I shall previously inform you.

First — Fibra, tela cellulosa.

All animal substance may be reduced to fluid & firm. I avoided beginning with the two heads because they are of different kinds and indeed they are best to be learned after considering the solids & their various section. The solids are to be considered as the basis of the whole body; but Dr. Haller has here touched upon against all the rules of good order in giving up a very difficult chemistry, and in involving us in the doctrine of Nutrition &c.

"II Solidorum &c. inorganizm." Haller here would seem to confine himself to animal solid in its aggregate state, and go no farther than microscopes enable us to see and he has reduced that to Fibra, Plata, and irregular mass, or mass of indetermined figure. Every solid is as you know of three dimensions. Where the length & breadth differ in their proportions, so as that the proportion of the former to the latter is much greater it is called Fibra; where the breadth bear a greater proportion to the length it is called Plata; the third part is that in which there is nothing definite and in their dimensions.

"III Fibra &c. — — — subside. In this and the IV. V. XVI. he endeavours to show that the more steady parts are earthy & that they are connected by glutine, the touchscreen whom he.