and one can show that pain and pleasure are strictly by connected with the force of impressions. To bring down pain it becomes pleasurable, and bring down pleasure it becomes painful. With the present case of law of impressions becoming weaker in consequence of repletion, applies in the case of medicines operating upon the nerves especially without sensation, or if attended with pleasure or pain. It applies equally to sedatives impressions, and it furnishes a strong objection to sedatives acting by mixture. In other cases of mixture we have nothing analogous to this. If sedatives then act by mixture the effects should be constant and steady. Down it is a strong objection but to one not constant. As sedatives and stimulants are often combined the latter may modify the former in quantity as well as in their effects. But supporting this not the case this mixture takes place in a small portion of the nerves, and may produce its sedative effects by modifying the motion in the rest of the nerves. This doctrine gives occasion to many constructions both as to moral & medicine. I shall speak of the latter hereafter.
The mind perceives but one thing at once. Vast impressions are made at the same time; one only should be perceived. However, several simultaneous impressions do operate on our opinions, but it is only where they can unite in making one single impression, which they often do. We now have learned to distinguish the colours of the primary Blue and Yellow are considered as simple ones; if they be so blended in such small portions that the eye does not distinguish them, they produce the compound colour of Green. The same thing takes place in sound, and hence we can distinguish the difference of simple and compound impressions, nor does this contradict the law of preceding but one thing at once. Further, sensation is not strictly confined to the presence of the object. But the same lively sensation that came from the present object often remains for some time after the object is removed. While it remains so another impression that should have united with it will unite with it still remaining; only a certain quickness of succession is necessary. Hence this is proved in the motion of a body appearing continued the it be a discrete one.

...the apparent continuation of the flame of a 259 burning light, which we feel. By a piece of Delinius C. we have learned to ascertain the shade of colours precisely without the use of words. We distinguished Insents by the various shades of the same colour. Instead of words he fell upon this convenience of producing the colour. He got as a steady colour as could be contrived; he then measured the quantities of these by the same they occupied. In forming a circle we made one half of it all intensity blue the other yellow, and made them unite in one by putting the circle into motion, Suppose in the middle, eight parts of green three of yellow and five of blue made a certain shade; & so of the rest. It is to be observed that the union of our perceptions seem to be limited to perceptions of the same kind. As there is no union between colours & sounds. They prove no mutual sensation. This mixture of sensations is more or less accurate, it is hard to perfectly so with regard to blue and red, where we will have more perception of the decided parts of which the colour is composed. These are certain sounds or tones uniting more perfectly and giving the pleasure of harmony. In like manner our united with sound but not with colour. A
A white or red color gives us an idea of the brightness. These are perceptions of sight that manifestly blend with both taste and colour, each are the same. Black and white do also blend with these perceptions of touch; these are still ambiguous between the chemical and mechanical. But impressions made with small points will excite these feelings. These views very strongly combine the analogy of the manner of operating explained before; and apply very probably in the operation of images either with or without perception to be considered in another place.

— Lect. XLVIII. Jan. 23rd —

I was yesterday upon occasion from compound impressions, I seem to be when in what makes our sensations are complex or compound, that of them ought not to be external objects and we separate ourselves from these objects. We consider them as separate objects in so far as they appear discrete. We seem to take one body from a single impression. But we need a variety of impressions from it to sustain a number of sensations; this is their qualities. Since the human understanding and in consequence sensations, most of our sensations may be retained by memory without an

neural of impressions. This gives the formation of 300 or more principal complex idea: This is properly our common sense, upon it depends that we have a consciousness of our own identity, and also that of objects perceived at different times. Next, the mind in taking from one sensation to another, has a new perception arising from the two considered together; there is what we call relation; and it seems to be infinitely diversified but may be reduced to a few general heads. The first is that of situation in place and time. Since the relation of above and below, before and after, this is fixed and last and every consideration of scale. The second head is that of resemblance or similarity of other qualities, which particularly are observer degrees and combination every thing of proximity or diversity. The third head is that of cause and effect: I learn from observation of space & time, but whether we observe a complication of new existence and new qualities. I am inclined to mention two relations more particularly belonging to one of the three former heads but requiring the mention of separately. The first is the relation of qualities to their subject. Whether we be right or wrong in our perception of objects, we take all our qualities in by reserving them to one thing. Ano—
this particular thing is the relation of all that
bodies to ourselves, but in especial manner ac-
quiring pleasure or pain. We necessarily perceive the plea-
sure and pain of other men. As of all animals, we
extend this perception to others in proportion as
we may have sympathy for them. It is what I call
interesting relations. It is in this that what we all
judge, chiefly consists. All intuition, judgement
are more than perception of relation to
happiness. But of it I shall say more hereafter.

I now next to speak of memory, having noticed
the more strictly of sensation.

It is a law that two Ideas, being so connected
that when one of them is removed the other is
necessarily removed also at the same time, and
it extends further, for that Idea remains asleep
and so on ad infinitum almost. We can perceive
plainly on what it depends, viz: the relations just
now marked. It is only said that that are thus
associated in the memory. In the first place then
relation of space and time, but more certainly the re-
lation of resemblance at the same time; and little
further when cause and effect are added. Also trans-
lation of qualities to the subject affords a particu-
lar foundation of association; and still more so
-- maketh all interesting relations afford us a most
curious particular is that we not only operate
one sensation with the last, but upon any sen-
sation occurring we compare it with one laid up
in the memory long ago, and indeed with everyting
formerly laid up. Hence you see how relations come
to be, and hence the arrangement upon which de-

dings the whole of our knowledge. The memory
in this respect a common place book, according
the most
very much with that in which, I formerly laid down
in my chemical days, where every impression
is set down without order, and afterwards ar-
ranged by reminiscence. I observe further
that the power of memory or from one of these
associations depends upon various circumstances.
First upon the nature of original impressions
whether depending upon attention or that, long
given, depending upon the force of original im-
pressions; and that again being given the mem-
ory depends upon repetitions. We distinguish
between sensation arising from the object and
the renewal of it by memory. Our Ideas become

maker in the last case than in the former.
ry is different at different times of human life, according to the state of the sensorium common. It is much alike and becomes stronger with age. Memory is considerably different at the same period in different persons; this may depend on the state of the organization. I only mention one or two general distinctions in our memory. The first is that some facts be memory remain in the several or arbitrary associations of perception only. Upon this it is established that the most arbitrary signs may be agreed upon among men as marks of ideas. We agree upon sounds or figures if these are but connected by time, they come to be ever after, of themselves enough to renew the idea by knowing that figure or repeating that sound. This is the foundation of language & writing; which have neither relation but merely the most simple one of place & time which unites them forever after. It is not necessary that one figure should appear, but any other figure presented along with that animal will answer equally
with regard to one particular relation it must be observed that the number of such relations is not many. We find a spontaneous and almost absolutely necessary train of thinking. One man will mark relations not common such as the foundations of need, but they must be natural and obviously just, and as the wise hopes from one object to another so does the mind from one train of thinking to another, and here too is a foundation of difference of judgement. When a man acts and thinks consistently with the surrounding objects he is said to be respected of common sense, he follows a common and ordinary train of thinking. It is by the contrary inconsistency that we distinguish between madness and soundness, dreaming and waking thought. There is an intermediate degree in this respect. On different occasions in different men we perceive more or less germs of attention, and if for various purposes in life that be interrupted it must be renewed again, and this in a person capable of it we properly call presence of mind, some cannot bear an interruption without being thrown into confusion. The chief circumstances of interruption are all those that are attended

The objects of our attention are prodigiously varied, yet the heads of Relations are but few and

Let XLIX. Jan. 7. 77.
with passion which thrust him into a fit. Further memory is exercised two ways, very different. The most ordinary is where sensations are only renewed. And some times memory revives with all the force of the first object which made the impression; in that case I call it imagination. I go on now to observe that the ordinary case of memory is that some external impression first causes a sensation in the mind, passes to some idea relating to it, and the whole can be traced back to some external impression. In delirium the idea is received without the external impression. This is difficult however to say when the cause of dreams or delirium is placed in the mind, and not in external impressions, such as sensory perception. The action of the external can be doubted. But as we perceive that the external sensations can be excited by the beating of an artery in the ear, or when the eyes are shut, and as we see in so many instances ideas excited without being able to trace the external impression, there is no doubt but that ideas may be received from external impressions. If they are upon the extremity of the senses, I call the cause internal corporal. In delirium & dreaming too things are to be observed, that the ideas are nearer to sensation, are therefore more imagination than memory. In some measure they are actual impressions; therefore the mode on the circumference they may have the same effect as of mind fast on the extremity of the nerves & afterwards propagated to the circumference, & hence we judge of delirium in proportion to the force of sensation. Another circumstance is that the ideas are incoherent and inconsistent. I shall give a theory to explain that. As our waking thinking can be interrupted by impressions superimposed, it is probable that impressions are made in different portions of the circumference exciting their mutually interrupting each other. This is but one law of association which disputed the same as in our waking thinking, and if it was not for the interruptions of different internal impressions, the brain would be consistent. Probably it is owing to the circumference resting the
passage from one idea to another; probably the transitions being blocked up to a certain degree not allowing this passage of or from one idea to another. The whole business of memory is connected with a particular state of organization, and being open in one place and shut in another, it produces incoherence in dreaming, a greater frequency of dreams is to be considered as the first step to delirium. But when I said that dreams might be some times coherent, I did it to observe further that their force comes or lifts according to the more or less freedom of the sensorium, which in some places is very free and gives an easy train. But without violent or strong impressions the change is in favour of connection; hence the commotion will get out of their bed and walk with more steadiness than when walking. This foundation of what they perform is either founded in sleep or not in which may be considered as a passion. Most of these people that do get up generally beat those who are sleeping with them. A physician beat his companion in this manner, & the man was afterwards found of riding in sick bed by his companion keeping himself by the bedside and making application to it when ever it was possible to view it. & man sleeping will walk, with steadiness and safety, along the ridge of a house or chair; which is not surprising. It would do that as well waking (as we can walk along a line on the ground) were it not prevented by fear and attention to surrounding objects. It has been a question to what degree these eyes are open, in what case it might be supposed the attention would be called off. Certain it is that in many cases it happens with the eyes open, and yet the attention is still confined to one thing and what relates that. You will, from all that we have said, I desire to understand why in running over a whole of relation, we can hardly avoid interruptions from occasional impressions. Silence and darkness are favourable to thinking. We are bound to consist of surrounding objects and the concurrence of our own identity, and when we are in danger,
of losing sight of that in Delirium and dream, it is only to be remedied by presenting to our imagination of objects, and those most familiar to us. Chancer gives us a story of a stupor from a fall: the man all at length recovered, and first of all had a perception of sounds & voices; he knew them shock of a wound, but never applied it to himself, till the return of more of his sensibilities, and he was told that he was struck. The sensation is shut up to a greater or lesser degree; in a sleep the eyes are closed before we lose our sensibility. If the ears are open, and so when patients have a fit they recover, their ears are open in which they may exercise for a long time while the portion of the sensorium, that should allow the taking of these relations is still shut up. The ears may be awake without giving that sensation that will restore us to our own identity, and therefore the eyes must be open. We may conclude that in no other way can we be limited to the objects of sight and hearing. We do not doubt that signs are used to serve both of our intellectual and moral opera-

lions. It limits our pleasure but it prevents the imagination of pain, the sense of which we cannot realize. Yet it is to be noticed that the greater impressions of the agreeable or disagreeable are all easily removable; but what is more to our purpose is that the mind do not renew the idea or sensations of the body without their signs. We can renew our sensibility though not our sensibility at all. We are hungry, in the case of chowmein and so also in medicine. A sight of Baccanalian will renew the mine to which the former exhibition of it occasioned, the the exact sensation of chow also is not renewed.

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Lect. I. Jan. 28th.

Yesterday I forgot some particular applications, as for instance, that there is a curious law in our memory, as to signs which the not sufficient to renew sensations or reflections of pain or pleasure, yet if a renew desires. I forget altogether that as the memory is a renewal of signs and ideas, there is something which we call reminiscence. If once a single object I have seen before
I immediately recollect I have been at before. We find love our memory of signs, next that of clay and last of all that of common sense or condition. The former setting of and part from a second sight. I divided this subject into two; the new sensation the other right sensation such as pleasure and pain which are well or ill. The true idea is that all this which belongs to the well is divided into agreeable and disagreeable.

Authors have made a third kind of Ablation or indifferent; whether this kind is natural or may be different to say. It is certain that many things may be such as very little or not at all to concern.

Pleasure

is not to be defined. The pleasure of colour & sound gives so many specific sensations as I can not attend to now. Common language has given us no steady foundation of difference between disagreeable and pleasant, disagreeable & painful, but there is a difference in every body. Now the difference between the agreeable sense of colour & disagreeable sense of the stickling of a fether. We call these pleasures that are needed by the

life. The Measure of Imagination is therefore 213 mental. We receive a sensation in our different sensations, as for instance the pleasure of imagination hardly seem to make any impression on the body. Next to this are the pleasures of sound which are more evidently corporeal, but from their harmony and lasting impression on the mind. They are considered as mental. Then of smell which without the object are not to be removed are purely corporeal. Taste is a corporeal pleasure which depend upon a man's contact of external bodies and which we refer to external bodies or our own and if this then is no memory it depends always upon present impression. But as to thirst and hunger their degree higher and they are not found among the corporeal or sensual. The other as connected with the struggle of doing are more powerful in giving the whole frame and are considered in the highest light of corporeal sensations. We give the greatest pleasures. To distinguish.