

and then always settling at one point. Nothing can be more natural than that the first enquiry should be, what gives polarity to the needle? Science answers, Magnetism. Now if this power had not received a name, this question could only have been answered by circumlocution, which might perhaps involve comparison, and a description of its sensible properties. This will serve to show the difficulty which embarrasses this part of my undertaking, and I feel assured that no other apology need be given for exhibiting in various ways the multiplied forms in which the principle to which I refer develops itself.

I shall then first define this principle as the power by which habit is formed, or that aptitude by which nature accommodates itself to circumstances.

The infant is free from all artificial rules, eating and sleeping at all hours. The business of life, and attentions of the nurse during the day, soon produce greater watchfulness in this portion of time, and a consequent increase of sleep at night, until its hours of rest and wakefulness become assimilated to the habits of those who surround it. The stomach, although at first only qualified to digest milk, gradually accommodates itself to the use of other food, and the child not only eats and drinks the articles usually given it, but it desires to do so at the ordinary periods. These, which at first are matters of necessity, at length become habitual, and are complied with from choice. The fondness which the people of all nations evince for the different articles of food which they severally use, and the great length of time that some subsist on the simplest articles without satiety, show conclusively that the stomach and all the organs connected with digestion accommodate themselves to the use of such diet as is generally eaten in their respective countries. And if a new article of food be taken, the stomach can ordinarily receive but little at first, although it may be agreeable to the taste. This was clearly illustrated by the Israelites, who loathed even the manna from heaven, and sighed for the flesh of Egypt.

We find also that the taste as well as the stomach becomes so far accommodated to the use of different articles of food, as even to contract a relish for some kinds which at first are very disagreeable. The tomato furnishes an example of this kind with almost every one who eats it. The partiality thus formed is commonly, and I think very appropriately called an acquired appetite. Nor is it probably less certain, although at first view less obvious, that our appetite for almost all food is acquired, or becomes confirmed by use. In speaking of the stomach I would observe that its functions not only become adapted to the kinds of food with which it is usually supplied, but its capacity is gradually varied to suit the quantity with which it is too often surfeited by the voluptuary. The enormous size which it sometimes attains in complying with the voracity of the glutton, is such as to almost stifle the belief of the most credulous.

I will now give a few instances in which this power or principle of nature to accommodate the system or its parts to circumstances, is obvious in its effects to the sight and touch.

In examining the foot of an infant the skin is found to be as soft and delicate on the bottom as the top: as the child begins to walk, the flesh on the bottom becomes much firmer, and the cuticle or outer skin, thicker. The effect of work on the inner side of the laborer's hand is the same. Let sickness or accident prevent walking and working, and the thick skin will not be needed, and this law of nature by which it was formed, now exhibits itself again by throwing off the superfluous skin, and the flesh once more assumes its natural covering and tenderness.

The arms of the blacksmith and sailor afford further evidence of this principle by the increased size of the muscles, which enables them to sustain great and almost constant exercise.

We have another striking and familiar instance of the exemplification of this power in the protuberance formed on the fingers of tailors, which enables them to resist the impression of the shears. But should any be inclined to attribute this enlargement wholly to the shears, I would request them to test their opinion by taking a dry stick, and giving it the same friction within the bows of the shears and note the effect. It will be found that the rubbing, if persevered in, will cause a depression instead of an eminence. Thus proving that the living finger contains a principle that fortifies it, and enables it to sustain the hard action of the galling iron.

Nor is this power of accommodation limited to the human system. Take a sheep whose wool enables it to withstand so much cold, and carry it to a warm climate, and the thick fleece, no longer needed, degenerates into a thin covering of hair. Bring it again to the North, and it resumes a thick warm coat to protect

it from the severity of winter. Surely, all who adore that special Providence which "tempers the blast to the shorn lamb," cannot fail to admire this mysterious principle of nature, that pruned the lamb to bear the extremes of both heat and cold.

Multipled examples might be given to show the existence of this power of accommodation to circumstances in almost every department of living nature, not excepting even the vegetable kingdom, the operations of mind, and the influence of passion; but enough has been stated to convince the most sceptical of its extensive operations. I shall, therefore, now endeavour to note some of the phenomena which are invariably displayed in the action of this principle, to which may be attributed its unfavorable effects in the use of intoxicating drinks.

And first, its operations are always performed by slow and gradually increasing steps. In accordance with this the doses of the deadly beverage when first taken into the stomach must be small and weak. The large draught of the old inebriate would be rejected, or might prove immediately fatal. But when a little is taken, nature, ever true to the task which circumstances impose upon her, begins the work of accommodation. The stomach conforms to this little. Another little may be a little stronger or larger, and thus increasing create a demand for more. The stomach, and through that organ every other part of the body by degrees become habituated to an unnatural excitement, and this acquired state of the system demands a continued supply of stimulus. Thus it is a temperate use alone, that prepares the stomach for the potations of the drunkard.

The second point to which I would direct your attention, is the *unconsciousness* with which this principle effects its operations, even to the individual on whom this change is wrought. I do not mean to be understood that the individual remains ignorant of the change after it shall have been made, but only of the process by which it is produced. It is even impossible that he should know more of the growing alteration, than a youth of his increasing stature without a comparison with his garments, or the well-known measurement of some object. The laborer can perceive the increased thickness of the skin on the inner side of his hand, but he cannot be conscious of the operation by which nature has protected the tender flesh. So with the unhappy "temperate user." He can scarcely believe that "a change has come over him," even when his acquired appetite, this state of "second nature" demands the intoxicating stimulus. He attributes his bad feelings to disease, and esteems alcohol as a remedy, or, he calls himself weary, and the cup, his "grand restorer." But it is useless to attempt an enumeration of the many reasons he will assign for his sufferings before he will place them to the account of his favourite beverage. How vain then is the common boast of the tippler, that "he knows when he has got enough." And how directly is he contradicted by the experience of every intemperate man? Who was ever known to begin drinking with an intention of becoming a drunkard? On the contrary do not all begin to drink with the determination of keeping within the limits of a "temperate use?" Will it be alleged that there is a want of intellect in all such as fall a sacrifice to intemperance? Can imbecility of mind be pleaded for Alexander the Great, and a long list of distinguished inebriates that might be mentioned? If it be true that these wanted discretion, can we be safe? The truth is, none can mark the steps by which nature accustoms herself to the use of stimulating drinks. Her progress is slow, and her operations are in silence. However humiliating may be the reflection, none of us can take cognizance of her movements.

The third particular which I shall notice in the change that is produced by a "temperate use," is the fact that this effect is wholly beyond the control of the will. In proof of this I would ask, can any one by the power of his will prevent the thickening of the cuticle on the foot or hand, that shall be exposed to the friction of walking or labor? Can the tailor, who may be desirous to avoid the inconvenience which the protuberance on his finger may present to the wearing of a tight glove, prevent its growth by any exercise of his will? Can any one who may have taken arsenic, avoid its corrosive and baneful consequences merely by the influence of his choice? These suggestions are absurd, and yet any of them are as feasible as the supposition that we can control or avert the operation of intoxicating beverages.

Thus I have endeavoured to prove that there is a principle or law of nature by which the human system undergoes a change in consequence only, of the "temperate use" of alcoholic drinks. Secondly, I have shown that this change takes place without even the knowledge of the person on whom it is wrought; and