

the worst form of typhus may be successfully treated without it, and with a greatly reduced mortality rate. Dr. Hartshorne's observations upon this point are well worthy of reproduction here, Speaking of *stimulism*, as the theory and practice of Dr Todd, and now followed by too many others, he says: "It confounds three distinct propositions, 1, That all disease is debility: 2. That all debility should be treated by the use of stimulants; 3, That alcohol is always the best stimulant. Granting with some qualification the first of these, we emphatically deny the truth of the second and third; It is a practice which, like many other specialisms will have its day."

Now all this, and more, might be asserted against the alcoholic treatment—Dr. Ainstie to the contrary notwithstanding—who even goes so far as to make the monstrous assertion that "even a perfectly healthy adult will receive benefit from the use of at least an ounce of alcohol in some form or other daily," whereas the opinions of the most eminent members of the profession, and the daily experience of millions, go to show that perfect health can best be maintained with none, and which the recent experiments of Dr. Parkes go far to sustain.

That it produces serious disturbance of the whole vascular system, frequently resulting in disease of the heart and blood vessels, has been amply proven by the observations of Dr. W. B. Richardson, supported by the experiments of Dr. Parkes and Count Wollowicz; shewing that the arterial system under alcoholic stimulation is like an engine working under high pressure, and is actually under an excessive tension equal to lifting 36 extra tons daily a height of one foot. The inevitable *break down* is sure to follow.

It is a somewhat significant fact to find in all instances where alcohol has been administered as a restorative in fever hospitals that the mortality rate has always been high. Notwithstanding the over-confident assertion of Dr. Ainstie (who by the way is rather singular in this) that "if the dose be moderate and the administration well timed (two excellent loop-holes in case of failure) the effect upon the nervous system is simply that of a restorative stimulant, sensations of fatigue are dispelled, the mind works more freely, (does it?) a healthy sense of warmth is diffused throughout the body; (this he contradicts in his lecture, before the College of Physicians, where he agrees with Dr. Ringer) and the arterial system acquires an increased tonic, if it was hitherto deficient in that quality." This he appeals to the sphygmograph of Mr. Marcy to prove, which experi-

ments with it by others contradict, as I have before stated. "If, on the contrary the dose has been immoderate, or administered at a time when it was not required, the pulse waves give a precisely opposite indication, that, namely, which proves that arterial relaxation has occurred and simultaneously with this, the pulse becomes abnormally quick." This last result is that which has been generally obtained where tests have been made by others.

To establish the relative success of the alcoholic or non-alcoholic systems of treatment in fever it would be very desirable to have the two plans submitted to a crucial test in our large Hospitals, when I am confident as to which will prove to be attended with the greatest success. And I base my assumption upon the fact, that since alcohol has been proven to increase the quantity of carbonic acid in the blood, and by interfering with elimination, to cause retention of effete material, (and it may be, poisonous germs that would otherwise be cast off) in that fluid, for there has also been noted the existence in the blood of large numbers of peculiar transformations of the liquor plasma and which recent Pathologists believe to be disease germs in reality,—at all events, effete matter, which but for the action of the alcohol upon the fluid would not exist, not being component parts of healthy blood—this may be undeveloped cell structure; and while a temporary stimulant, yet by repeated doses, it loses that effect and becomes a depressant; therefore, it cannot possibly be otherwise than hurtful in the treatment of such cases.

Dr. Hartshorne, while not entirely denouncing alcoholics in the treatment of Typhoid fever, recommends *Liquor Ammonia Acetatis*, as a diaphoretic, with liquid food. And says concerning alcoholics "*less than half the cases of Typhoid fever which I have seen have required alcoholic stimulation at any stage.*"

[Reasoning from Professor Lehmann's conclusions, Oxygen Gas, or Ozone, may be ranked among the best possible remedies for low forms of disease, such as fevers, &c., where it is possible to administer them. The former may be given in the form of oxygenated waters—two or three pint bottles daily, and the latter may be inhaled from jars filled with oxygen gas, through which an electric current has been made to pass, and which, therefore, contain electrolytic oxygen or ozone. The administration of these gasses in zymotic and other diseases depending upon the presence of a blood poison has long been a favourite idea with me, and I venture to hope that an opportunity may some day present itself for giving them an extended trial. For, I believe with Schonbein that "the exist-