greatly strengthened by another circumstance, which is, that when re-vaccination has been instituted in adults, it has been found to preserve them more effectually from smallpox and its modifications; of this, a good instance came within my own knowledge, of a family in Scotland, which escaped infection through this means, when a variolous and varioloid disease was raging epidemically all around it.

Were my children to leave this colony for England, or indeed for any place where there was a chance of their being exposed to smallpox, I should certainly have them all re-vaccinated, by which means I should consider them to be rendered more secure against the influence of its contagion.—*Medical Gazette*.

CHOLERA AND TYPHUS FEVER.

On Cholera and Typhus Fever. By JOSEPH COMSTOCK, M.D., of Lebanon, Con.

Communicated for the Boston Medical and Surgical Journal.

THE excitement and terror of the two worlds,—the *old* and *new*,—respecting Cholera, has induced the medical faculty to reflect, investigate, and write, upon the disease, even when 3,000 miles distant. This is perfectly judicious and philanthropic. Every particle of light, which can be shed upon a disease so terrible, ought to be put in requisition, so that the monster, should it appear, may be met at the threshold, with appropriate weapons in readiness and complete order.

Cholera, or, as it is vulgarly called, *Cholera Morbus*, is with us no new disease. What would be *new* to most of us, who, like myself, have been in the practice of medicine for even thirty years and upwards, would be, to lose a *single patient with it*.

We have, however, never known a case of the disease exactly like those of Europe and the East. In those countries, the worst cases appear to be a rapid and total nervous annihilation. In these extreme instances, there is no re-action of the system, and no time for such re-action.

The first stage is a dying state,—the second stage is death itself! An eye-witness says,—“Within twenty minutes of the attack, the vital functions become utterly paralysed, pulsation ceasing at the extremities, animal heat becoming almost wholly extinct, the surface of the body, lips, tongue, mouth, and face, assuming a deadly, cadaverous, and leaden tinge,—to the touch cold as marble.” * * * “Boiling water, spouted on the extremities, fails to produce a momentary blush, much less a vesication.”—This, we are told, “is the character of Cholera of the worst type, such as has appeared in Sunderland, Houghton la Spring, Gate’s Head, Newcastle-on-Tyne, and other parts of the north of England.”

We are further told, that *post-mortem* examinations have done little towards eliciting the pathology, or mode of cure, of this terrible epi-

demic.* These features and facts are certainly appalling ; but it is our imperious duty to know the worst, and to be prepared for it.

Perhaps the time has arrived, in which we shall be able duly to appreciate the labors of our chemical brethren, who have been separating the most active principles of our most active medicines.

Opium, of itself, would appear to be too powerless to meet this Goliath ; but its active and concentrated principles may be found equal to the emergency.

Morphine, a remedy so potent that one sixteenth of a grain is a dose, promises something. Where even this small quantity cannot be swallowed or retained, it acts externally in larger quantities, as in one, two, or more grains, the skin being denuded of its cuticle in the first place. When vesicatories fail of accomplishing this, it may be done by the lancet. The patient may, in fact, be inoculated with this powerful narcotic and stimulant, or it may be used *pro injectio*, with diluted alcohol and other stimulants, such as a decoction of capsicum, a solution of pepperine, tinct. lytta, or spt. turpentine, if injection can be retained.

But to discover some prophylactic,—some supporting, invigorating plan, which would render the human system wholly or partially invulnerable to the impressions of the potent enemy,—is the grand desideratum. Opiates, in some form or combination, would appear to promise most for this all-important purpose.

Supposing that the epidemic should visit Boston, or any other of our cities or towns, those in health should be provided with some of the preparations of thebaic, and, under the direction of their family physician, make such use of them as age, sex, constitution, and idiosyncrasy, would seem to justify.

Small doses of opium might be taken, in substance, in form of pills, or laudanum in combination with ol. of peppermint, ol. of cinnamon, ol. of lemon, spt. lavend. comp., aq. ammonia, vol., camphor, capsicum, pepperine, quinine, or Huxham's tincture ; or the citrate or sulphate of morphine might be used, in combination with either of these articles, or clear, as judgment, or even fancy, might dictate.

Those of the profession who saw some of the worst cases of spotted and typhus fever, appropriately termed by my friend, Dr. MINER, *typhus syncopalis*, which prevailed from 1806 to 1814, and in some places after the latter period, know something of a disease which approximates more nearly to the eastern cholera than anything that has been known in the United States. Confounded, in my own practice, with the rapid tendency of that disease to speedily run the patient down to the lowest state of debility, and thus to prove fatal,—confounded, also, by the inefficiency of all that I found written upon it, except by a few of my own contemporaries in this country,—I resorted to a practice the most deci-

* One important fact has, however, been discovered by dissections. It is what I call the *death of the arteries*, they being found empty. This death-state of the arterial system has been discovered a little before death. This discovery was made at Berlin, where, for the purpose of *transfusion*, the brachial artery was denuded, opened, and found empty ! It is a disheartening discovery, because its causes remain undetected in the dead subject, by the most skilful anatomists. One of the most eminent of this class, the late Dr. WISTAR, of Philadelphia, informed me, whilst I attended his lectures, that for six years he had studied and investigated this phenomenon without being able to satisfy himself of its cause. Connected with this subject, I have one important *quere* to propose to the anatomists of Boston and elsewhere, viz. :—*Can a colored injection, thrown into an artery of a living animal, be detected in the veins of that animal ?*—In the dead subject, it is well known that it cannot.

dedly stimulant, with the happiest effects. Five hundred and seventy-five cases of this epidemic and its congeners fell under my care, from 1810 to 1814, both inclusive.* Among a great variety of cases, I have those of three sisters, out of ten brothers and sisters who had it, particularly in my recollection. One of these was a little girl in her 10th year. I found that wine did not reach her case, with all the aromatics and stimulant additions which I could get down. In this stage, she was visited by me with one of our eminent professors, who told me, as we came out of the house, that *I should lose my patient*.

I then resorted to alcohol, in the form of strong W. I. rum. I told her mother, who was a most excellent nurse, that she must get down enough to warm her child, let it take what quantity it would. A pint of this article, diluted with water and dulcified, was given and retained the first 24 hours, and as much or more for several succeeding days, with some wine and opiates. She was saved.

The second was her sister, in her 13th year. The symptoms of extreme exhaustion, coldness of her lower limbs, which reached above her knees, indicated speedy and seemingly inevitable dissolution, and this under the use of a quart of wine a day! Some good French brandy was then resorted to, and the same quantity of wine continued. She took for the first 24 hours a whole quart of wine, and a pint and three gills of the brandy, with bark, aromatics, and opiates; and for several successive days these quantities were not diminished, except the brandy only, and that not more than a gill. She retained these enormous quantities, never ejecting them from her stomach, and was also cured; and, I may add, without any detriment to her constitution. She afterwards became a healthy young woman, got married, and with her husband came to visit me at my present residence in Connecticut.

The third sister was a young married woman, who lived five miles distant. The epidemic of which we are treating sometimes assumed the form of cholera. This was the case with Mrs. H. The puking was excessive; the diarrhoea not quite so urgent. I, however, at first despaired of her recovery, because, with alarming debility, her stomach did not permit the retention of any remedy whatever. Her husband was a merchant and grocer, and had in his store good spirits of fourth proof. With the addition of laudanum, enemata of this article were resorted to, and happily retained. Nine gills of the spirit, a little diluted with milk and water, were administered in speedy succession, one gill each time, with about one drachm of laudanum. She was likewise saved, and her recovery from the most frightful state of exhaustion and nervous derangement was complete.

Although the free and liberal use of ardent spirits was found thus useful as a *remedy*, and may be equally so in cholera, yet, as a *prophylactic*, I consider them hazardous; for I found that no class of persons were so liable to die with typhus, as those whose constitutions were broken down by intemperate drinking.

* The writer at this time resided at S. Kingstown, R. I.