of calcium phosphate within the bladder, and upon the formation of urinary calculi, as showing how phosphatic precipitation may take place in a feebly acid condition of the urine.

Fuller details will appear in a paper to be published in an early number of the *Dublin Journal of Medical Science*.

THE CHOLERA: A NEW METHOD OF TREATMENT.

By HENRY CUMBERLAND TAYLOR, L.R.C.P., M.R.C.S., Jersey.

ON December 4th, 1872, I published in the *Guy's Hospital Gazette* a mode of treatment for cholera, founded on *post mortem* appearances, and on the symptoms observed during life. At that time I hoped to evoke a discussion on its merits, or at least to have provoked criticisms; in this I was deceived, and I now once more present this theory to my professional brethren, in order to arrest this terrible scourge by a method which, though untried, could not be less successful than the common treatment, the results of which are sufficiently unsatisfactory.

The especially remarkable changes presented in the dead body after an attack of cholera are the clotty state of the blood and the distension of the liver and gall-bladder by bile. The absence of bile from the intestines; vomit, and stools, is also to be noted. This is to be explained in two ways; for the liver extracts all the bile from the blood without being able to discharge it into the intestine, because the bile-duct is blocked by the intestinal inflammation; and on the other hand, if it were possible to cause the bile to enter the intestine, this latter, for the same reason, would not be capable of absorbing it. Thus it is that its administration in doses by the mouth, or rectum, in the form of ox-gall, is inert.

But why should we wish to restore the bile to the blood? There are two reasons for so doing. Persons attacked by jaundice suffer from an excessive fluidity of the blood, and experience great difficulty in arresting blood flowing from a cut, however slight. Bile also hinders decomposition. I am forced to conclude that this absence of bile causes the thick and clotty state of the blood present even during life, and the decomposition of matters present in the intestines.

An experiment performed by M. Magendie shows us that the injection of bile into a systemic vessel causes immediate death, whilst when injected into a portal vessel no harm ensues. Thus common bile will not answer.

The treatment I propose to introduce, as an adjunct to those generally carried out, consists in injecting the active principle of bile, the substance called bilin, which is derived from the crude secretion by a chemical process, the steps of which I shall presently indicate. It is this bilin which is restored to the blood by the lacteal vessels, and from this fact we may conclude that the injection into one of the veins of the arm will not cause bad results, if precautions be taken against the introduction of air. In several instances I remember that the injection of warm water, and even of a saline solution, has been productive of good effect, sometimes followed by a complete restoration to health.

Unfortunately, the practice of my professional duties now prevents me from trying the experiment. I have published this proposed treatment, in order to enable those attending the unfortunate sick who are attacked by this fearful disease to try its merits; the last occasion on which I witnessed a case of cholera was in 1866, on board a ship when we were placed in quarantine.

Bilin is prepared from ox-bile by first adding ether to extract the fatty matter. This is separated by decantation, and the residue is treated with acetate of lead, which forms the tauro-cholate of lead. After filtration, this precipitate should be suspended in water, and sulphuretted hydrogen gas passed through; from this the deposit of sulphide of lead is obtained, and the tauro-cholic acid (bilin) left in solution. After another filtration, the solution of tauro-cholic acid is submitted to the action of carbonate of soda, thus forming tauro-cholate of soda, the best preparation for the injection. This salt should be purified by crystallisation. The quantity employed in the twenty-four hours should be one hundred grammes, dissolved in a litre of water at the temperature of the blood (37° Centigrade); that quantity corresponds to the bile usually secreted by the liver.

In the hope of doing good to my fellow-creatures, if possible, as well as of opening the field to those who may be fortunate enough to be able to study the nature and treatment of this frightful ill, I shall await with the greatest pleasure the efforts of those physicians who, regardless of their safety, may be willing to honour me with their experience and esteemed assistance.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF HAY-FEVER.

It is just over five weeks since a lady placed herself under my care for the treatment of hay-fever, or summer catarrh—a very much better name. She had suffered severely for many years, and sometimes from the end of May to near the end of July with little or no intermission unless she kept indoors. Her mother, it is worthy of remark, was very sensitive to the odour of certain flowers, and was affected by some of them even to the extent of fainting. She was not subject, however, to summer catarrh.

Knowing how exceedingly unsatisfactory is the treatment recommended and practised for this disease, as is sufficiently evident from the recent communications to the JOURNAL on the subject, I sought for rational indications that might guide me to the selection of a remedy. I thought of the neurosis that seems to underlie most cases of this kind, and to constitute the essential cause or predisposition on which the disease depends; of the characteristic symptoms of the malady: the injection of the conjunctiva, the hyperæmia and hyperæsthesia of the nasal cavities, the excessive secretion of tears and mucus; and then I bethought me of a drug whose physiological action might indicate the possession of the power to control such symptoms. Belladonna was the drug that suggested itself at once, and I determined to give it a trial, all the more hopefully because I remembered how strikingly useful on similar indications, and by a parity of reasoning, I had often found it in ordinary conjunctivitis and simple catarrh. I began with the following prescription: $\mathcal{R}$ Succ belladonnæ $\pi\pi\pi\pi$; aquam ad $\mathfrak{z}\mathfrak{i}\mathfrak{j}$. Misce. A teaspoonful to be taken every hour till relief is obtained. The medicine was taken without the production of any undesirable effect, and with very marked advantage indeed—an advantage that became still more evident and unmistakable, both to the patient and myself, when the dose was increased from one minim to one and a quarter (half a drachm in three ounces). Once, too, when the eyelids were especially tender, the patient was advised to use the mixture as a lotion to the affected parts, and this local application was found to be a most useful addition to the internal administration of the remedy. Repeatedly, when the symptoms of an attack had been allowed to begin, the patient found prompt relief after a few doses of the drug, the catarrhal affection disappearing first, and then the asthmatic; and on taking it regularly every day after the malady had been subdued, she has found to her delight that she can take her walks abroad through blooming grass and flowers without the least protection or precaution—a thing she had not been able to do for years before.

The patient, remembering no doubt the failure of past treatment, pronounces the remedy "a great success;" but, however satisfactory the case may be, it is, as far as I know, a solitary one, and therefore stands in need of confirmation and support.

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OBSTETRIC MEMORANDA.

HOT-WATER ENEMATA IN DELIVERY.

THE value of hot-water enemata as a means of hastening delivery, apart from its use in the removal of fecal accumulation, in such cases of tedious labour in which either ergot or the forceps are admissible, has been hitherto unaccountably ignored in practice, as far as my experience extends. I formerly had warm-water enemata given with the usual object of removing fecal obstruction from the rectum; in most cases, an increased rate of dilatation of the os followed. Latterly, I have had enemata of hot, not merely warm, water administered, whether there were any appreciable collection of feces or not, and always with the result of an accelerated rate in the progress of labour. The fact of the os dilating under the influence of the enema, whether there were an appreciable quantity of feces or not in the rectum, proves that their presence does not prevent dilatation by causing spasm; at least, not in the majority of cases. It follows that the hot enema must act as a direct and powerful stimulant to the uterine muscle, and I feel convinced, I may add, as a result of close observation, also to the voluntary muscles engaged in the act of parturition. Judging from the sense of relief which follows its administration, it has, at the same time, a relaxing and soothing effect on these same parts; analogous, in short, to the effect of hot water applied in the familiar form of a fomentation to an inflamed and painful swelling.

I believe I am justified in adding that there is less atony of the