peutic principles as may be suggested by a general study of pathology.

One explanation I may perhaps be allowed to offer. Nothing can be further from my wish than to sanction in any way the detention of insane persons at home. Whenever insanity has manifested itself to such an extent as to justify the requisite certificates, the patient should at once be removed to an asylum. No private house can possibly command the varied resources and facilities for treatment possessed by a large and well-conducted institution arranged exclusively for persons so afflicted. And not being myself connected with any asylum, this opinion may perhaps be received as given in sincerity. But, practically, we find that a certain time does always exist between the first manifestation of the symptoms of insanity and the determination to remove the patient to an asylum, and it is to this interval only that my remarks are intended to apply.

The family medical attendant will act wisely, as a general rule, in mentioning to the friends the possible necessity of legal restraint from the commencement of the attack; but there are always feelings—prejudices, if we may venture to call them so—which militate strongly against the employment of the legal forms required for admission to an hospital for the insane, and which press for “a trial at home.” Then the medical attendant is sometimes painfully situated, and the absurd harshness of the law as regards his responsibilities must, and at present does, tend to prevent the early removal of the patient. The law very properly requires clear proof of the fact of insanity, but the expression of a scientific or technical opinion should be plainly distinguished from the quasi-magisterial act which consigns the inhabitant of a free country to a place of detention, and these totally distinct functions, with their attendant responsibilities, be assigned to different persons.

The forms of insanity which we are generally called upon to treat at the patient's ordinary residence are, acute mania, melancholia, and puerperal insanity, and the remarks which I purpose making on the medical treatment will be restricted to these. I shall, however, just notice the various conditions involved in the *general management of the patient* under such circumstances.

Welbeck-street, Cavendish-square, Dec. 1863.

TINCTURE OF SESQUICHLORIDE OF IRON IN DELIRIUM TREMENS.

By JAMES GREY GLOVER, M.D. EDIN.,

LATE HON. SURGEON TO THE SOUTH SHIELDS AND WESTON DISPENSARY, ETC.

I SAW R—, a drayman, for the first time on Sunday morning, October 11th, at half-past nine. He had been under the treatment of another practitioner for five days; probably the ordinary treatment by purgatives, opiates, and support. The disease was still at its height. There had been no sleep for five days. He was so unruly as to require two men in the room with him, and so threatening towards his wife that she had to keep out of the room. Sweat stood in drops on the skin, &c. A good sign about him was the avidity with which he disposed of a mutton chop during my visit. I gave him one grain of opium every three hours, and, in the interval of the opiates, fifteen drops of the tincture of the sesquichloride of iron; also broth, and half an ounce of spirit every three hours.

Sunday evening.—He seemed quieter, but had no sleep, and could not be prevailed on by his attendants to keep in bed. I gave him forty drops of tincture of opium, to be repeated in six hours if still sleepless; to continue the iron and the support. He became so unruly in the night that two policemen were called in to the aid of four men. The policemen removed him to the police-station, but soon released him at my request. As in most such cases, the control over him was more a matter of tact than of force. Though his attendants found the greatest difficulty in managing him, I could get him to do anything I pleased.

Monday morning.—I found him much quieter and alone in the house with his wife. The muscles were much steadier. At half-past one P.M. he complained of feeling tired, lay down in bed and went to sleep till thirty-five minutes past three, then had some food and went to sleep again at five o'clock for three hours and a half, and so on during the night.

Tuesday.—Though somewhat stupid—as a man should be who has only had a night's sleep in a week—he was quite

rational and manageable. From this time he rapidly and satisfactorily recovered.

Remarks.—The therapeutics of delirium tremens are in such a state of confusion and conflict that I make no apology for submitting a new suggestion to the profession though, supported at present by only a single case. He must be a man of rare decision who is at once clear as to his duty in the treatment of delirium tremens: whether to give a dose of digitalis, which a few years ago would have been thought simply an overpowering poison, and which given in delirium tremens seems occasionally to act as such; whether to give antimony and purgatives, or beef-tea and support; whether to pour in spirit or to withhold and eliminate it. There is no more discreditable chapter in all the practice of physic than the treatment of delirium tremens. Little importance can be attached to one case, but it is sufficient to justify further experiment. In twenty-seven hours the tremor was almost gone, the patient became quiet and manageable, and a natural sense of fatigue ushered in actual sleep, which speedily restored the patient to health. At any rate, tincture of iron seems a more natural and safe remedy for a pale, weak, sweating, timid, and tremulous drunkard than tincture of digitalis; and my object will be attained if the profession give it a fair and full trial. Probably larger doses than I gave would be well borne.

Highbury-park West, 1863.

ARE THE ROSE SPOTS OF TYPHOID FEVER ALWAYS DIAGNOSTIC OF THAT AFFECTION?

By HENRY KENNEDY, M.D.

THE three following cases appear to me so important, as bearing on the question stated above, and thus opening up a new phase of this subject, that I venture to submit them to the notice of the profession:—

CASE 1.—Mr. C—, aged twenty-three years, admitted into pay ward of Sir Patrick Dun's Hospital on the evening of the 15th of November last. In my absence he was then seen by my colleague, Dr. Moore. The next day I had also the assistance of Dr. Burke, one of the physicians of Steevens' Hospital, who had been attending the patient previously with Mr. White, of Henry-street. I was informed that the patient had but just recovered from a severe attack of scarlatina, when he was seized with all the symptoms of enteric fever, attended by sharp purging, and followed in a few days by a well-marked crop of rose-coloured spots, which were confined to the chest and abdomen. *The statement was made without any inquiry on my part;* and Dr. Burke further remarked that as the spots disappeared, the pain, which had been localized, seemed to become general, and so acute that he had been induced to treat the case for peritonitis, by leeching, &c. It is enough to add that matters went from bad to worse, and that the patient died on the fifth day from his admission into the hospital, having had great tympanitis, with pain diffused over the entire abdomen, and constant vomiting of a dark-green fluid, which was in much greater quantity than was swallowed. The diarrhoea, however, had entirely ceased. He died about the twelfth day from the onset of the fever. On examination after death, the results of acute peritonitis were found, with rather more than a pint of liquid effusion. There was no perforation, and all the lower part of the ileum, which was carefully examined, presented the normal appearance.

CASE 2.—Mr. —, aged twenty-seven, admitted into pay ward Nov. 12th. He had been under my care from the beginning of his illness, which commenced with the ordinary symptoms of fever. His tongue shortly became red and furred; eyes injected; sleep quite broken, and with a tendency to vomiting. The depression, too, was very great, and he complained much of severe pains through his limbs. I had been watching closely for any appearance of spots, and on the fourth day from admission, being now eleven days ill, I found three distinct rose-coloured ones on the sides of the chest. The day after they had increased to eleven, some of these being on the abdomen. At this period I brought my colleague, Dr. Moore, to see them, and he confirmed what has been stated. It is enough to add of this case, that there was no other symptom of typhoid fever, neither diarrhoea, tympany, nor pain on pressure. His recovery was delayed, however, by a slight attack of diphtheria, which I have also met in other cases of fever. The spots had disappeared by the fifth day from their first appearance.

CASE 3.—Mrs. —, a young married woman, admitted into

pay ward Nov. 19th, labouring under fever, of which she had been ill at least sixteen days, though not all that time in bed. Besides the usual symptoms she had a very rapid pulse, above 130, and extensive bronchitis through both lungs. Her eyes were much injected, and there was slight delirium, especially at night. The tongue was that of typhus. The lung affection required special treatment. On the third day from admission she presented a well marked crop of rose-coloured spots, confined to the sides of the chest and abdomen, and fifteen in number; but she had no other symptom of typhoid fever—no pain on pressure, no tympany, nor diarrhoea. About the twenty-fourth day of the fever the crisis began by sweating, which, though not profuse, lasted three days, after which she made a rapid recovery. The case was sent in by Dr. Sinclair, and was seen, when the spots were at their height, by Dr. Moore.

These three cases, which all occurred in November, 1863, appear to me very important. I had seen similar cases in former years, and stated so in my paper brought before the Royal Medical and Chirurgical Society of London in May, 1860. They appear to my mind to strike at the very foundation of the views held in London and elsewhere, as connecting the rose-coloured spots, and in small numbers on the chest and abdomen, with an enteric lesion; for, beyond any question, nothing of this kind existed here, and yet the spots might in the two last cases be taken as models. I am not quite sure but that similar cases have been described by others, though I cannot refer to them now. With my own views these cases admit of the easiest explanation. But I must leave it to the gentlemen who hold for a plurality of poisons to explain them on theirs.

Dublin, Dec. 1863.

THE ANALYTICAL SANITARY COMMISSION.

MEDICINES, THEIR IMPURITIES AND ADULTERATIONS.

SPIRITUS ÆTHERIS NITRICI.

(SECOND REPORT.)

IN the report on Spirit of Nitric Ether published in THE LANCET of November 14th, the results were given of the examination of thirty-two samples of that article, purchased at the establishments of various pharmacutists and chemists resident in the metropolis.

It was shown that the weight or *specific gravity* of the various samples ranged between 834, the Pharmacopœial standard, and 952,—a difference of no less than 118 grains,—due mainly, it was affirmed, to admixture with water in various proportions.

That the *acidity* also varied greatly, it ranging in each thousand grain measures of the spirit from 45-100ths to 14·4 grains.

That a large proportion of the samples contained *aldehyde*, which was present in some of them in considerable amount.

That nearly one half the samples, in place of being prepared with vinous alcohol, were made with *methylated spirit*.

The fact was also prominently referred to, that both Pereira and Rodgers failed to separate the hyponitrous ether, believed to form an essential and distinctive constituent of spirit of nitric ether, by means of a saturated solution of chloride of calcium, the method usually employed. This failure, it was suggested by Mr. Rodgers, possibly arose from their having experimented with the spirit of nitric ether of the London in place of the Edinburgh Pharmacopœia, the latter being prepared in an essentially different manner.

The samples experimented upon by Pereira were of Howard's manufacture, and had a specific gravity of 850; those from which Rodgers endeavoured to separate the hyponitrous ether were obtained from some London chemists.

The foregoing are all highly important facts and data relating to the composition and condition of a prime article of the *materia medica*. They do not, however, exhaust the subject, and we have therefore considered it desirable to pursue our investigations.

The points to which we have given special attention are the specific gravity of spirit of nitric ether, the presence of water, the presence or absence of hyponitrous ether, and the manufacture of the article.

Two methods were followed with a view to the separation of the hyponitrous ether, to one only of which need we at present refer. The plan first employed was to pour into glass tubes of suitable length and diameter a saturated solution of chloride of calcium, prepared either from the dry or fused chloride (it does not appear to matter which), and then to add to this half its volume of the spirit of nitric ether to be tested; the tubes were then hermetically closed, the contents well agitated, and the tubes set aside at rest for some hours. If hyponitrous ether is present in any amount beyond mere traces, the mixture, when shaken, assumes a milky appearance, which remains for a short time, and which is in itself a sufficient indication of the presence of the ether. When the amount is considerable, usually the separation of the greater part of the ether takes place in the course of a few minutes, and sometimes it is almost instantaneous. When the sample is free from nitrous ether, the mixture, when agitated, speedily becomes as clear as water, provided the solution of chloride of calcium has been previously filtered.

We stated in our first report that the specific gravity of the nitre affords evidence of the absence or presence of surplus water and of its amount. This statement, so far as it relates to the spirit of nitric ether sold by the London chemists, we see no reason to retract; there are, however, of course, other means by which the amount of water in spirit of nitric ether may be determined absolutely and directly. The method we have pursued is the following:—Recently ignited carbonate of potash was placed in a tube of the proper size and length, and upon it a measured quantity of the spirit to be tested was poured. The quantity of potash and of the spirit must, in all comparative trials, stand in strict relation to each other; usually the alkali should form one-seventh or one-eighth part of the weight of the spirit employed. If too much potash be used, the effect of the spirit upon it cannot be so readily seen and appreciated. The tube should then be hermetically closed, and the contents well shaken from time to time. The effects in most cases are at once more or less apparent, but in general they are best observed after the tubes have been standing at rest for three or four days. If the spirit of nitric ether be of the Pharmacopœial standard, or even within some few degrees of it, the potash, in place of becoming soft and more or less dissolved according to the amount of water present, swells up and breaks into granules, so that it occupies frequently twice its original space in the tube; and in this condition it remains.

The explanation of this increase in the bulk of the potash appears to be this: that while there is water just sufficient in the article to cause the particles of the potash to swell up, there is not enough to exert any liquefying action. It is really extraordinary how delicate this method is of determining the presence of surplus water in spirit of nitric ether, and its amount.

We now state that in using, in our first report on spirit of nitric ether, the expression "over weight," we of course meant over Pharmacopœial weight, and by "surplus water" we meant water in excess of that contained in the Pharmacopœial preparation of the standard or authorized gravity—namely, 834, or even within a few degrees of that standard.

We will now proceed to give some further results of the examination of the samples noticed in our first report, as also of some other samples.

RESULTS OF THE EXAMINATION OF NUMEROUS SAMPLES OF SPIRIT OF NITRIC ETHER PURCHASED IN THE METRO- POLIS.

Sample 1st.

Purchased of—Mr. Squire, 27, Oxford-street.

Specific gravity 833·2. Furnishes a thin film of *hyponitrous ether*. Carbonate of potash, thoroughly dried, swells and breaks up into granules, and thus occupies a much larger space in the tube, showing the absence of surplus water.

Sample 2nd.

Purchased of—Messrs. Bell and Co., 338, Oxford-street.

Specific gravity 839·0. Furnishes a thin film of *hyponitrous ether*, the carbonate of potash swells up, and becomes granular, as in the previous sample.