therefore, that neither was the constitution of the patient suited to the exhibition of æther, nor the time for the performance of the operation judiciously chosen. Certain I am, that it would have been extremely difficult to perform any operation requiring steadiness or delicacy in its execution during the presence of such symptoms as were produced in this instance by the inhalation.

It is clear that great judgment is required in the selection of cases, and that the inhalation of æther ought on no account to be practised by any but competent medical practitioners. The object for which it is employed is so desirable, that in all probability it will become general in the profession; but in order to be useful, *it must be safe*, and I trust the above narrative will prove, as it is intended to be, a warning against the indiscriminate employment of a powerful agent, which, in incompetent hands, or under unfavourable circumstances, is capable of producing very disagreeable if not dangerous effects.

Coltishall, January 25, 1847.

AMPUTATION PERFORMED UNDER THE INFLUENCE OF ÆTHER.

TO THE EDITOR OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

SIR,

The result of operations performed upon patients under the influence of æther, will, for a long time to come, be regarded with peculiar interest both by the medical profession and the public; and it seems desirable that the practice of reporting all the cases which occur, whether favourable or otherwise, should be continued, as affording the best means of enabling us, in due time, to obtain a correct knowledge and form a just estimate of the real value of this highly interesting and, I hope, most happy discovery. I am consequently induced to send you a brief report of a case which I had at the Northampton General Infirmary, on Thursday, the 21st inst.

My patient, a little boy 12 years old, had for two or three years been the subject of scrofulous disease of his left knee. Treatment had proved useless, and his constitution had begun to feel the effect of local disease. Amputation therefore became the only chance of saving life, and to this both the parents and the patient were at length induced to consent. The means so happily discovered for preventing the pain of surgical operations not having been tried at this Infirmary, I determined to avail myself of this case for the experiment, and had arranged to call upon the parents and request their consent, but fortunately the mother, anticipating my wishes, waited upon me, and requested that either this or any other measure might be adopted if it could afford a chance of relieving her child from the agonies of the operation.

I thought it expedient to try the effects of inhalation the day before the operation; and I am inclined to attach some importance to this, believing that some cases of failure, which have been reported, might possibly have been successful, had such a measure of precaution been used. The little boy was at first rather alarmed, and, from the effects of agitation and apprehension, not able to breathe the vapour well, but by a little gentle persuasion and encouragement he soon succeeded in doing

so, and in about two minutes the stupifying effect of inhalation was full and satisfactory. By various little means we assured ourselves that he was unconscious of pain. He was pleased when he awoke, and talked about his nice dreams, and, the next morning, when I went to him, a little before the time appointed for the operation, I found him quite cheerful, and apparently feeling confident that he should not suffer any pain. He said he should not be afraid this time, and that he would breathe it well. He did so, when placed upon the table, without any agitation; but the effects on this occasion were not produced so soon as the day before, which I attributed to his seeing so many gentlemen in the room, together with other feelings which might attend the occasion; but in about four minutes the state of unconsciousness appeared to be complete, and I proceeded with the operation,—amputation above the knee.

The limb was removed in about two minutes, during which time not the slightest motion nor sign of sensation was observed; afterwards he became partially awake, and capable of conversation, but still seemed to suffer no pain from tying the vessels and dressing the stump. As on the day before he talked about his dreams, but most distinctly assured us that he had not been conscious of any suffering. All the medical officers of the Infirmary were present, and, with one or two exceptions, all the surgeons of the town, and some others, and every one was satisfied that the power of the vapour had been most fully and satisfactorily shown.

I attach no particular value to the apparatus I made use of, not doubting that many better ones are already in use, and that farther improvements will probably still be made; I merely mention, therefore, that it is a common wide-mouthed bottle, holding about one and-a-half pint, fitted with a cork, which is perforated by two glass tubes. One of these, the breathing tube, goes in no farther than just through the cork; the other goes nearly to the bottom of the bottle, its lower end being immersed in the æther, of which about half a pint is required. This tube admits fresh air into the bottle as fast as it is drawn out by the breathing tube; and the said air passing through the æther, becomes strongly impregnated by its vapour. A piece of sponge is fixed at the upper part of the bottle above the æther; an elastic tube is attached to the outer orifice of the breathing tube, and to the other end of the elastic tube, a tin mouth-piece of two parts, one for inhaling out of the bottle, the other for exhaling, the latter tube requiring a simple valve.

I have pleasure in stating that my little patient, is going on in all respects perfectly well.

I am, Sir,

Your obliged and obedient servant,
H. TERRY.

OBSERVATIONS ON THE INHALATION OF SULPHURIC ÆTHER.

By CLEMENT HAWKINS, Esq., Surgeon, Cheltenham.

The introduction of a new remedy into the practice of medicine and surgery, at all times attracts great attention; and I am inclined to think many useful remedies often fall into disrepute and disuse, in consequence of the indiscriminate application of them.

Those members of the medical profession who have

had an opportunity of testing the efficacy of the inhalation of the vapour of sulphuric æther, in rendering patients insensible to the pain attendant on surgical operations, appear to have pronounced unanimously a verdict in favour of the discovery of Dr. C. J. Jackson, and Dr. Morton, in America. Such appears to be the case, if we may credit the accounts lately promulgated by the daily press. Dr. Bigelow, in the *Boston Medical and Surgical Journal*, has given a detailed account of the effects of this discovery in numerous cases. I have read carefully some extracts from his paper in the last number of the *British and Foreign Medical Review*, and I cannot consider the symptoms which accompanied the inhalation of the vapour altogether free from danger. In some, alarming cerebral symptoms occurred; one patient became excited, and required to be confined in the chair. "Young subjects are affected with nausea and vomiting, and for this reason Dr. Morton has refused to administer it to children."

A short time since, I witnessed the effects of this remedy on the person of a young medical man, of spare habit. He requested my attendance late in the evening to restrain a profuse hæmorrhage, consequent on the application of two leeches to his gum. I succeeded by the use of pure tannin. He informed me, that two days previously, the crown of a tooth had been broken off, in the attempts made by a dexterous dentist to extract it; this operation was followed by great inflammation, aggravated by exposure to cold; the pain he suffered was almost intolerable. The next day, contrary to my advice, he determined on having the stump removed. I cannot imagine a more painful proceeding, considering the state of the parts on which the operation was to be performed. He requested that I should be present, as he was about to inhale the vapour of æther previous to the attempt being made.

A bladder, with a suitable mouth-piece, &c., was prepared by Mr. Ruck, of the Montpellier Baths, in this town, and the sulphuric æther put in it. The patient proceeded to inhale the vapour; in two or three minutes he became quite unconscious; complete relaxation of the muscles ensued; the pupils were dilated; the pulse small and quick. The dentist, with an elevator, proceeded to eradicate the stump, which broke in the attempt. About one minute was occupied in performing the operation, when he started from the sofa, and commenced dancing and singing, placing himself in a pugilistic attitude, and made a desperate attack on a vapour bath which was standing in the room. The face and neck were much congested, and far darker than I have ever witnessed under any circumstances, the pupils enormously dilated. I must say I was relieved from much anxiety, when I saw the countenance restored to its natural state. I should think the whole period occupied in inhaling the vapour, and the return to consciousness, was not more than five minutes. The pain returned with great violence, and he again attempted to inhale the vapour, which proved a failure. Farther attempts were made to eradicate the offending stump in vain. I recommended him to go home and take a grain of muriate of

morphia; in the evening he was free from pain. He informed me that although he felt no pain during the operation, he was not altogether unconscious.

I have thought it worth while to communicate the particulars of this case, and to make these observations on the use of this new discovery, and I hope the members of the Provincial Medical and Surgical Association will give a candid statement in the *Journal* of the effects of the remedy under consideration. Many I know have already operated under its influence, and it is very desirable we should have their experience faithfully recorded.

Dr. Ware, of Boston, in his letter to Dr. Forbes, in the *British and Foreign Medical Review*, says, "objections may arise, of which we do not dream, and evils may be found to follow which we do not now perceive." The violent gesticulations that ensued in the instance I have detailed, although of no great importance in an operation unattended by hæmorrhage, would have been of serious consequence in one in which it was requisite to divide large vessels. I feel it would have been almost impossible to restrain the muscular exertions of my friend, who informed me that similar effects follow the inhalation of laughing gas.

If I were desirous of performing an operation under the influence of the vapour of æther, I should certainly make a preliminary experiment on the patient some days before the operation was to be done, and in the present state of our knowledge I should decline using it in cases of accident requiring amputation, &c. In plethoric subjects and in those who have a disposition to cerebral congestion, I should consider the use of the remedy wholly inapplicable.

REMOVAL OF A STEATOMATOUS TUMOUR UNDER THE INFLUENCE OF SULPHURIC ÆTHER.

Eliza Morris, a patient of the Chichester Infirmary, aged 29, the subject of a steatomatous tumour, situated deeply in the left lumbar region, and about the size of a goose's egg, was operated on on the 29th instant, in the presence of several members of the profession, whilst under the effect of sulphuric æther, by Mr. Abraham Duke, senior Surgeon of that Institution.

The patient having been placed in a proper position for the operation, and the nose being closed by an assistant, the inhalation was commenced, and in about six minutes it was quite evident that the vapour had produced the desired effect, (this was indicated by the turning up of the eyes, falling of the eye-lids, a fixed but dilated state of the pupils, the lowering of the pulse, and the total unconsciousness of the patient,) when the fingers were removed from the nose for a few seconds. Mr. Duke then began his first incision, and in three minutes the tumour was dissected out, without the patient evincing the least sign of pain, or any unpleasant effects supervening. At the commencement of the operation she moaned occasionally, and says she felt a slight prick, but not anything like pain; in fact she was not aware of having undergone the operation when placed in bed, twenty minutes after it had actually been performed. It was necessary to make use of six sutures, and although