

name engraved on many a sufferer's heart. He it is who in conjunction with Dr. Jackson of the same city, has had the honour of introducing to the world a effectual method of rendering patients insensible of pain, by the inhalation of the vapour of the strongest sulphuric ether. This is not a new remedial agent, it is true, for it was used many years ago to lessen irritation in the chest in the latter stages of pulmonary disease. The late Dr. Daniel, of Exeter, frequently ordered it, and it has also, we understand, been frequently used by other medical practitioners. It is new, however, as regards operative surgery, and there cannot be a doubt, from the cases recorded in the hospitals of the metropolis, as well as those in the provinces, and in America, that it is one of the greatest discoveries of the age. The patients are thrown into a state nearly resembling that of complete intoxication from ardent spirits, or of narcotism from opium. This state continues but a few minutes,—five to ten—but during this period the patient is insensible to pain. There is this difference between the action of alcohol and that of the vapour of ether—that with the former the stage of insensibility is preceded by a stage of nervous and vascular excitement, whilst in the latter the insensible state comes on almost immediately. In the numerous cases which have been reported, the ether appears to have had different effects upon the nervous system; and this has probably been owing to the quantities of the vapour inhaled. Thus, in several cases, the effect has been to deprive the patients of the power of feeling and moving; but they have been conscious all the time, and have witnessed every step of the operation performed on them—though without experiencing pain. In the majority of cases, however,—and these probably where the ether has been most adroitly administered, there has been a total loss of consciousness; and the patients, on waking up from the slumber produced, have expressed their surprise not only at the operation being over, but at the apparently short time which it has occupied. The value of the agent is attested not only in the minor operations of surgery, such as the extraction of teeth,—but also in the most tedious and distressing, and those involving the greatest amount of danger from the shock given to the nervous system. Severe operations of various kinds, including the Cæsarean operation, have been performed under the influence of ether in the great London Hospitals; and so many cases have been reported in the provincial journals that the efficacy of the remedy is now beyond a doubt.

A few of the more remarkable cases are the following:—An Irishman was brought into the London hospital with a compound fracture and dislocation of the tarsal bones of the foot. The man, after considerable reluctance, at last consented to amputation of the leg, provided the pain was in some way diminished. The vapour of ether was had recourse to, and applied in the presence of Dr. Pereira and a numerous assembly of medical gentlemen. In five minutes, the inhalation proved successful, and in less than another the leg was amputated by Mr. Adams, the patient during the time giving sly winks and facetious nods to those surrounding him. During the intervals of the inhalation, his observations were of the most facetious character, forcing from by-standers involuntary laughter, and converting that which to the poor fellow was a most tragical event into a scene little short of a farce. Upon removing the ether, he called out, "Hold hard there a bit, let's have another go at the grog," which he drew in the greatest avidity. Not for one moment during the operation did he exhibit the slightest symptoms of pain, but, on the contrary, his countenance was expressive of the greatest hilarity; and at the conclusion of the operation, after the effects of the ether had passed off, he could scarcely believe that his leg had been so painlessly removed. His ideas, whilst under the influence of the vapour, were similar to those of a person enjoying a pleasant dream; he had fancied himself walking in the streets of Cork with his sweetheart, and, to use his own expressions, "enjoying most pleasurable sensations." He slept well during the following night, and is in every respect progressing favourably.

Another Irishman was operated on successfully in the Royal Infirmary at Edinburgh. He was a middle aged man, a "navy"—who had sustained compound fracture of the leg nine weeks before. The fracture had not united, in consequence of the appearance of a dead piece of bone; and it became necessary to remove this by a painful operation. The patient was seated on a table, and the inhalation was applied by means of a very

beautiful yet simple apparatus, made by Squire of London. At first, little effect was produced; but after some minutes, the patient fell backwards, as if in a swoon. The operator was then about to proceed; but the man immediately objected—saying, "that he trusted nothing would be done till he was asleep." For full twenty minutes more, the inhalation went on; the man confused and talkative, but wide awake, and occasionally expressing very emphatically his conviction that "it would not do." At length, however, while in this wakeful state the operation was begun. Incisions were made on the skin; and flaps were dissected off so as to expose the bone beneath. A portion of this was sawn and clipped through, and then the bone was removed. Only during the clipping of the bone with strong straining pliers did any sign of feeling escape from the patient, who was busy inhaling all the while, and now and then protesting that "it would not do." The operation occupied about ten minutes, and from the highly sensitive nature of the parts implicated, must have been attended with excruciation suffering in ordinary circumstances. After it was over, the Professor said to the patient, "I suppose you won't let me operate to-day." "Certainly not," said the patient: "it won't do, I must be asleep." The thing has not succeeded with me, and I am sure it can't succeed with any one else, for I did everything I could to get asleep for my own sake, and I'd do anything to please you." "You won't let me make a cut into the leg?" "No, I must be asleep; we can try it another time." This plain proof of his utter unconsciousness of the operation having been performed was acknowledged by the spectators in a hearty round of applause. The patient then, on seeing the wound, burst into an immoderate fit of laughter, saying, "No doubt there's blood, or something very like it; but I haven't felt a single thing done to my leg; that bates the globe;" and on being asked decidedly as to his having "felt anything," he repeatedly answered, "Not a ha'porth." He got into amazing spirits, and refused to leave the table until he had told "all about the toldrums of the business." And then, with the manner of a tipsy man, and very happy, he kept surgeons and students in a roar of laughter for some minutes with a narrative of his condition during the inhalation, which, Irish-like, seemed to have been a strange medley of imaginary fights and "killings" going on around him, but wholly irrespective of his own leg and the operation. On being carried out, he declared triumphantly, "this is the very best thing that has ever happened in the three kingdoms." The Professor stated that he considered this case quite conclusive as to the powers of the ether, because there was no more painful operation in all surgery, and because the patient, having been avowedly a hard and habitual drinker of spirits, was one of those persons who are least susceptible of the ether's influence. On the following day, he was doing well, having experienced very little pain after the effect of the ether had ceased.

In a third case, under the same operator, the patient, who was a young man had an extensive incision made on the thigh on account of sinus, the wound being afterwards searched with the finger. After the operation had taken place he was asked: "Shall we make the cut now?" He answered, "Oh yes, I dare say you may," "Did you feel anything done to the leg a little ago?" He answered "nothing." On being then shown the wound he was surprised and said, "Well, I had a kind of a dream as if something was done to my leg—just a dream like." He was then asked as to his present sensations. "Just as if about half drunk." "You have been tipsy then before?" "Yes, twice." "But never so comfortably drunk as now?" "Never so lightsome."

Another case, which occurred in Westminster Hospital, was that of a woman of middle age, suffering under condylomatous growths from the labia. After an inhalation of about four minutes, the patient was pronounced in a state fit for the operation. The morbid growths were then dexterously removed, without any expression of pain on the part of the patient, and without any signs of suffering apparent on her countenance. The only indication of the nervous system being awake to the operation was the spasmodic action of the lower limbs, which took place at the moment of excision; but it was quite obvious that this was an excito-motory phenomenon, and had no connection with sensation. On the completion of the operation, some wine and water was given to the patient, who seemed awakening from a dream, and appeared for some time uncer-