never have been reduced. The timidity of the patient and his friends would have kept them from any further attempts at reduction. Complete relaxation was induced by the ether. A. B. SHIPMAN.

Cortlandville, N. Y., June 23, 1848.

P. S.—One word with regard to etherization. A few days since, I exhibited the ether to a patient on whom I performed a surgical operation (castration). The ether was inhaled twenty minutes before insensibility was induced. Great excitement followed the operation; the patient laughed, shouted, and tried to get off the operating table, and it was with the greatest difficulty that he could be calmed, while applying the dressings. All went on well until the third day, when he was seized with a rigor, and fever soon followed; severe pain in chest; bloody sputa and difficult respiration, and a thin bloody sanies from the wound. I bled him, and the blood did not coagulate, but a strong buffy coat formed on the surface, while all beneath was dark, loose fluid. I confess I felt greatly concerned as to the result. The face was livid, pulse rapid, irregular, and he was exceedingly faint and weak. I gave him calomel, morphine and ipecac.; and the third day from the attack, I again bled him. The blood had now changed its qualities very sensibly; it was now florid, coagula firm and of a bright vermilion color, and destitute of the buffy coat. By an alterative and antiphlogistic course, he began to improve; the wound began to discharge healthy pus, and he recovered. Now it is possible that this would have been the case if no ether had been given; but he was not predisposed to pneumonia, nor did he take cold, that I am aware of. It is not strange that the vapor of ether applied to the delicate structure of the lungs should cause an inflammation; but I do not remember of a case being reported where such a result was observed. A. B. S.

SURGICAL CASES TREATED BY MAYNARD'S ADHESIVE SOLUTION.

[Concluded from page 427.]

IN the following instance the utility of this new dressing is shown by the fact of its being unaffected by cold-water applications, and not loosened by suppurative discharges.

CASE VII.—Last September a young man had his hand caught by a circular saw, and dreadfully lacerated. The index finger was entirely separated near the middle of the third phalanx. The third phalanx of the second finger had received a lacerated wound, extending to the bone. The third finger was also removed at the joint of the second with the third phalanx. There was, besides, a lacerated wound on the palmar surface of the fourth finger. The bone of the third finger protruding nearly an inch beyond the integuments, it was necessary to amputate it through the middle of the first phalanx. The index finger being greatly mutilated, a new flap was required to form a proper stump. This being done, the flaps of the amputated extremities were brought into their pro-

per position, and there retained by narrow straps of cotton cloth made adherent with the adhesive solution. The severity and nature of the accident causing great pain, sedative lotions and cold irrigations were repeatedly applied. The constant moisture from these sources had no effect in loosening the attachment of the straps. The exfoliation of a portion of the bone of one finger occasioned for some days a considerable discharge of pus, which did not, however, lessen the adherence of the solution.

This case certainly efficiently tested these invaluable qualities of the adhesive solution, showing its superiority over all other species of plasters.

Another advantage to be derived from this new method of dressing, and of which I have frequently availed myself, is in its peculiar adaptation to those cases, where, though the process of cicatrization is completed, yet the newly-united flaps are painfully tender to external impressions. In such cases I have pursued the following method. Having prepared several very thin layers of raw cotton, the surface of the recently-healed stump should be freely moistened with the adhesive solution, and a layer of the cotton instantly applied and made smoothly adherent. Proceed in this manner until the whole surface is thinly covered. When this first layer is perfectly dry, apply the solution over it immediately, adding a second thin layer. Repeat this process two or three times, and a solid encasement will be obtained, of such firmness as to effectually shield the delicate cuticle from any ordinary violence. In the case alluded to, this method was adopted after the stumps had become cicatrized, as the sensitiveness of their extremities precluded the patient from performing any manual labor. Perfect protection being afforded by the above dressing, he was at once enabled to resume his work.

Besides the advantages proffered by this new "adhesive solution," as shown in the cases already adduced, I have found its utility could be judiciously extended to various others within the domain of surgery.

Among these may be instanced indolent ulcers, in the treatment of which it has proved a valuable auxiliary. The principle of its agency is the same as in "Baynton's method," of which, in its application, it is only a slight modification. The advantages, however, which I conceive this new method to possess over that of "Baynton's," are these, viz.—First—The irritation of the healthy integuments from the resinous composition of the common plasters, is entirely obviated. Second—The tenacity of adhesion is such as rarely to require renewal of the dressing in consequence of displacement. Third—Being insoluble in water, the frequent ablution of the limb will not detach the dressing.

CASE VIII.—Mr. I., æt. 56, had been troubled, between six and seven years, with several indolent ulcers on the left leg. The largest of these was situated on the anterior and external surface of the tibia, at the junction of the middle with the lower third. It measured three and three quarter inches in its long diameter, by two and a half inches in its transverse one. The excavation from loss of substance was near a third of an inch in depth. The cachectic condition of the patient re-

quiring a tonic treatment, the ferruginous preparations were administered, and stimulant applications to the pale, flabby granulations.

Under this treatment, of some months continuance, his health was greatly improved. The surface of the largest ulcer had diminished about an inch. The size of the smaller ones was proportionally decreased. They then seemed to remain stationary, possibly because, the patient residing at a distance and constant supervision being, therefore, impossible, he was deprived in a measure of the beneficial effects of compression from "Baynton's method." The common adhesive straps being constantly displaced, and the irritation arising from their resinous nature producing a painful erythema of the skin, the adhesive solution was substituted in place of the usual dressings, in the following manner. Straps of cotton cloth, about an inch in width, were prepared, and attached, by means of the solution, at a point two inches from the circumference of the ulcer, commencing at the lower border. Drawing the opposite margins of the ulcer in closer proximity, the free extremity of the strap was then attached as before. Proceeding thus, the surface of the ulcer with the surrounding tissues was equably compressed and firmly supported. The smaller ulcers were likewise similarly treated.

The patient intending to be absent for a month, he was directed to shower the limb daily with cold water, and to puncture the dressing with a penknife over the lower border of the ulcer, whenever an accumulation of fluid occurred, requiring egress.

At the expiration of the month, he again presented himself. The superiority of this species of dressing was now plainly obvious. Even after this lapse of time, in spite of the prolonged friction and frequent ablutions to which the strips had been subjected, they were still perfectly adherent. Upon their removal, the smaller ulcers were found entirely covered with a firm healthy cicatrix. The large ulcer had decreased from its former size to less than an inch in diameter. The granulations were nearly even with the adjoining skin, and were of a healthy appearance. The patient expressed great satisfaction at the relief and comfort afforded by this new dressing.

There is yet another purpose to which I have found the adhesive solution applicable, which its peculiar qualities suggested to me, viz., as an artificial skin in the treatment of some cases of burns and scalds. Judging from the instances in which it has been thus used, it would seem to merit more extensive trial. Aware how difficult it is to fix a proper estimate upon the value of any remedial agent, I am unable to state to what extent this mode may be preferable to existing ones. This point could only be satisfactorily decided in case of two distinct burns, of equal extent and severity, occurring to the same individual, the one being dressed exclusively with the solution, and the other being subjected to former modes of treatment. In such a case, the result would determine its actual value. As no opportunity has as yet presented the requisite conditions for such a test, I will only premise, that in the few cases in which it has thus far been relied upon, it has apparently justified the favorable opinion in which theory is warranted in indulging. Its nature

is such that it forms, immediately after application, a firm transparent coating, perfectly protecting the denuded surface from all contact with the air. The injured part, thus exempt from this source of irritation through the medium of an artificial skin, the most favorable condition is afforded nature to repair the lost tissues and effect rapid cicatrization. Should pus or serum collect beneath, a minute puncture allows it to exude, after which it should be re-sealed with a drop of the solution. I will only allude to two of the cases in which it has been thus employed.

CASE IX.—Mr. ———, about 25, an operative in a factory, was scalded by the bursting of a steam pipe while at work. The injury extended over the side of the right cheek, temple, a portion of the forehead, and across the nose. He was seen within half an hour after the accident. An immediate application of the adhesive solution was made to the scalded surface, it being gently painted over with a large camel's hair pencil. Waiting a few seconds for the first coating to become dry, a second and third were added. After the momentary smarting from the ether holding the gummy principle in solution, the previous intense pain was greatly relieved, and, shortly after, ceasing entirely, he returned to his work. The patient experienced no further trouble.

CASE X.—Is that of a man who received a burn from a camphine lamp which accidentally exploded. The burn was extremely painful, involving the face, hands, and parts of the body. The immediate application of the adhesive solution was resorted to. For an instant the pain was increased, but quickly subsided, leaving the patient much relieved from his previous suffering. Occasional re-applications were made, to ensure occlusion from the atmosphere. Rapid cicatrization took place, and after the dressing gradually wore off, the features were free from all scars.

The immediate application of the solution is preferable in burns of the first three degrees. In those of the fourth degree, it may be advantageous to extend wide straps of cotton cloth across the surface of the burn (where large sloughs are likely to occur), and attach them to the adjoining healthy skin. This would permit of their ready removal for the purpose of inspection of the parts beneath—the external surface of the cloth being saturated with the solution, thereby effectually excluding the air.

Before closing this abstract of cases, demonstrating the varied adaptation of this novel addition to surgery, I will add a case in illustration of a mode of dressing lacerated wounds of the scalp, which has been followed by beneficial results. By this simple plan, the erysipelatous inflammation so frequently supervening on the employment of sutures, is necessarily impossible, while the requisite juxtaposition of the injured scalp is permanently maintained.

It consists in attaching to the shaved scalp a strap of sheep skin or cotton cloth, of an inch or more in width, cutting one margin of the cloth to correspond in shape with the edge of the wounded scalp. A narrow line of the strap on the side nearest the wound should be left unmoistened with the solution, and consequently unattached to that point

of the scalp; the object of this free margin being to leave space for the ready passage of the needle. The other side of the wound having a strap attached in the same manner, nothing remains but to pass a needleful of strong thread through the corresponding free margins of the straps, and thus bring the separated scalp into proper position. The pressure is by this means equally diffused, all painful tension obviated, the aid of sutures rendered unnecessary, and the danger of erysipelas from their use, consequently escaped.

CASE XI.—Was an instance in which I availed myself of this mode of dressing. An Irishman, a laborer on the rail road, was severely injured in a drunken affray, his body being bruised and his scalp torn, from blows inflicted with a rough stone. The most serious wound was a laceration of the scalp, about three inches in length, over the temporal ridge of the left parietal bone. As the sides of the wound were separated to some extent, my object was to ensure their coaptation, without resorting to the objectionable employment of sutures in the scalp. It was therefore dressed in the manner above described. The result was, ready union, without erysipelatous inflammation ensuing.

The introduction of this mode of dressing wounds of the scalp will undoubtedly prove serviceable to both surgeon and patient.

I now conclude this surgical report of cases in which I have used the "adhesive solution," they being a summary abstract from more than a hundred cases, but are sufficient to exemplify the singular qualities of the solution, as well as the varied capability of its application.

I cannot here refrain from expressing my thanks to Dr. Whitney for the ample opportunity he has afforded me, from among his surgical patients, for the thorough and extensive trial of the adhesive solution, by which I was enabled to demonstrate more fully and completely the success which had in a minor degree been obtained from my earlier experiments.

The "*experimentum crucis*" to which it has been subjected warrants my belief in the intrinsic merit of this new addition to surgery. Confident that the experience of the profession will corroborate my opinion of it, I take pleasure in submitting it to their consideration.

JNO. PARKER MAYNARD.

Since the first introduction of this adhesive solution in surgery, I have been repeatedly solicited to affix to this gummy principle (extracted by the action of sulphuric and nitric acids from vegetable fibre) some technical name by which it may be distinguished from the one extracted from the same source by the action of sulphuric acid alone, called dextrine, and the other by nitric acid alone, named by Mons. Braconnet, xyloidine. For this new principle I would therefore suggest, as a chemical cognomen, that of *Xyline*.

J. P. M.