peppermint over either carbolic acid, iodine, iodoform, or corrosive sublimate. When covered with a dressing of lint in olive oil the solutions decomposed at a later period in all cases, the decomposition taking place only after from sixteen days to three weeks in the case of the peppermint oil, while putrefaction was evident in Nos. 1, 2, 3, and 4 on the sixth day and in No. 5 on the seventh day. Of four specimens of No. 6 two never seemed to decompose; they were covered with lint and olive oil, containing 1 in 1000 of oil of peppermint, 1 in 10,000 smelt stale on the twenty-sixth day, 1 in 100,000 on the sixteenth. Usually the preparations had lost all odour of peppermint in three weeks.

Of those preparations *mixed with various antiseptics*—one, with iodoform, 1 in 50, certainly decomposed; one, with carbolic acid, 1 in 60, decomposed in twenty-four days; the corrosive sublimate solutions, 1 in 1000, 1 in 5000, 1 in 10,000, and the peppermint solutions, 1 in 1000, 1 in 2000, 1 in 3000, did not putrefy in three weeks; one of 1 in 5000 smelt stale in the fourth week. Of the gauze preparations, I found the peppermint gauze impregnable, and the piece of meat and fat placed in it was still quite sweet at the lapse of seven months, and after several re-exposures; the other gauzes failed—the carbolic gauze in the third week, the corrosive in the second.

The results, as might be expected, were very variable, and I do not offer such crude experiments as showing in what proportion exactly this drug may be trusted as an efficient germicide, but as proving undoubtedly that the oil of peppermint is, within limits of time, one of the strongest and most reliable of antiseptic agents. I have since used it in practice with most excellent results. Among the cases in which it has been the only antiseptic I have employed have been one of resection of a tuberculous knee joint (this case healed without any rise of temperature or any drop of pus; at six weeks from the operation the union was perfectly solid, and the patient has, since the eighth week, walked upon it without any other support); a removal of a large sebaceous cyst from the neck, not a single drop of pus being found, and healing being complete in four days by primary adhesion; an operation for strangulated hernia, after which no drop of suppuration occurred; and several minor operations, including a case in which many openings were made to relieve suppuration under the deep fasciæ of the whole of the forearm after a severe fall, and in which three six-inch-long drainage tubes were inserted; this case healed quickly without rise of temperature or any offensive character in the pus. For minor operations a preparation of olive oil, containing one drop of peppermint in an ounce, to soak the lint, is all that is required. I have also used a gauze prepared like *e. calyptus* gauze, and containing one part in 1000, with great satisfaction.

So completely does this antiseptic answer the purpose, that I did not hesitate to trust solely to its use in a case of removal of a sarcoma of the thigh, beginning in the glands along the femoral sheath (an operation performed only at the urgent request of the patient, who was sixty-eight years of age, and would not submit to amputation), and involving the dissection of the femoral artery and vein from the growth, from Poupart's ligament to Hunter's canal. The patient did not, however, rally from the operation. These operations were, of course, performed under favourable hygienic conditions in the country. But I have every belief that the usefulness of this antiseptic and its reliability will be still more triumphantly proved in town hospitals. It can be used in any strength, in any quantity, without any ill result to the patient. It should, therefore, be of especial value in abdominal operations. It is readily diffusible, but does not evaporate so speedily as to be rapidly exhausted. The gauze has retained the odour of it for nine months as freshly as when prepared. It is thus superior to corrosive, which does not come off from the gauze, so as to penetrate all parts of the dressing and the wound; and to iodoform, as its odour does not mask in any way that of any other discharges, as iodoform does. Not less valuable seems a special property it appears to have of checking suppuration, independently of its antiseptic tendency this way. As powerful as, but more penetrating and diffusible than, corrosive sublimate, absolutely harmless to the system in the largest doses, easily attainable, and readily prepared, oil of peppermint thus forms the best, safest, and most agreeable of all known antiseptics.

(To be concluded.)

CASE OF SUCCESSFUL LARYNGOTOMY FOR LARYNGEAL STENOSIS;

TUBE REMOVED AFTER TWELVE WEEKS' WEAR.

By C. H. WISE, M.D.

W. H. W.—, aged thirty-nine, job-master, first came under my care in March, 1886. For some three months previously he had been suffering from "colds" with progressive hoarseness, which had gradually increased to absolute aphonia, and was associated with frequently recurring attacks of dyspnoea. These latter attacks had become more and more frequent until the condition had become almost permanent, and my patient closely resembled a sufferer from chronic asthma, having an anxious drawn look, being emaciated, and breathing in a noisy wheezing manner, calling into action all the extraordinary muscles of inspiration. He had gone to St. Leonards for some time, and the warmth there had seemed for a time productive of great relief, but eventually the dyspnoea had reasserted itself, and he felt that his condition was gradually but surely growing worse.

On laryngoscopic examination I found that the mischief lay in the glottis. The vocal cords were slightly congested, and the left had a flattened tubercle (?) growing on it at about the junction of the posterior and middle thirds of its length. But the most marked condition was that both cords were fixed in the position of phonation, whilst their anterior thirds seemed absolutely contiguous. There was thickening of all the surrounding parts, especially of the aryteno-epiglottidean folds, inside the left of which there was a well-defined, raised, whitish patch about the size of a split pea. There were no ulcers to be distinguished either in the larynx or on the epiglottis. It is possible that the growth mentioned on the left vocal cord may have been an ulcer seen in profile, but of this I could never satisfy myself, and there was certainly no inflammatory redness round it.

There was a history of syphilis some years previously, and, taking the whole of the circumstances into consideration, I felt justified in coming to the diagnosis of tertiary syphilitic inflammation, and I therefore at once put my patient on an anti-syphilitic treatment, giving him iodide of potash internally and rubbing in a mercurial ointment over the larynx. The latter had soon to be discontinued; indeed, my patient protested against mercury in any form, as, he said, formerly mercury "tore him all to pieces." Afterwards, however, he took the biniodide in gradually increasing doses, and, as the result proved, with great benefit. Notwithstanding this, however, the dyspnoea gradually increased, and the aperture of the glottis got narrower and narrower. The patient's health got worse from the confinement and the constant struggle to get his breath, and he had occasional alarming paroxysms after slight exertion or the slightest exposure to a draught.

On April 12th Mr. Lennox Browne saw the patient with me, and agreed as to the laryngoscopic appearances and the diagnosis, and also as to the probability of a resort to tracheotomy being necessary at any time. He arranged to see him again on April 16th to consider the expediency of this, but at 5.30 A.M. on the morning of that day I was hurriedly summoned, and found my patient *in extremis*, unconscious, his face purple, and a copious perspiration rolling off his forehead, whilst he gave an occasional laboured gasp. I had fortunately brought my pocket-case and a tracheotomy tube with me, and I therefore lost no time in opening a passage into his lungs by doing a laryngotomy. I made a longitudinal incision over the crico-thyroid space, and then a horizontal one through the membrane, and got the tube in as soon as possible; but, rapid though this proceeding was, breathing had ceased, and I had to resort to artificial respiration for a few minutes, when the natural efforts were resumed by degrees. There was a good deal of hæmorrhage, which ceased as the veins about the neck became relieved of their turgid condition; and as consciousness gradually returned a few spasmodic coughs brought up some blood that had evidently run down the trachea. I had still enough to do to keep the tube clear of blood clot, to arrange for steam kettle and other details, until the hospital nurse, for whom I had telegraphed, appeared on the scene and relieved me.

During the next few days we had constant alarms by the tube getting blocked, principally by small masses of hardened blood and mucus. I believe some of the blood that got into the trachea coagulated on the walls, got

hardened, and was only gradually dislodged by the mucus gathering round it. On the fourth day the steam kettle, heated by a spirit lamp, got upset, and the carpet and curtains being quickly in a blaze, my patient and nurse had to hurriedly decamp into another room whilst the fire was got under. Still, despite these adventures, we had no lung or other complications. Mr. Lennox Browne, when he saw my patient after the operation, suggested the danger of necrosis of the cartilages from the already existing perichondritis, coupled with the pressure of the tube in its somewhat cramped quarters in the crico-thyroid space, and hence feared that a further operation of tracheotomy might still be necessary to avoid this danger. But the tube, an ordinary bivalve, was well borne, and my patient soon learned to accommodate it for himself until it was comfortable. Meanwhile, I pushed the anti-syphilitic treatment, and after a fortnight believed I saw a slight increase in the patency of the glottis, which was gradually changed to a certainty, as the cords were evidently slightly mobile, the thickening of the surrounding parts diminished, and the gummata (?) got smaller and disappeared. I tried several other tubes as substitutes for the bivalve, but until I got some soft rubber ones my patient expressed a decided preference for the original bivalve. Getting one of the soft rubber tubes that was comfortable, I cut an opening on the convexity, so that he could by stopping the external opening breathe through the larynx. This was on May 26th; but it was only by very slow degrees that my patient could be convinced there was any increased patency in the laryngeal opening; but by plugging it for half an hour or so at a time he gradually acquired confidence, and eventually we kept it plugged for hours together. On July 6th I finally removed the tube, which thus (with its predecessor) had been worn for nearly twelve weeks, and the wound healed in a few days with simple dressing. The cords had then resumed quite two-thirds of their normal range of mobility, and though the voice was still somewhat hoarse, there was perfect ease in breathing. Now (February, 1888) my patient is stout and hearty, and has a fairly normal larynx, with a scar over the seat of the operation that is hardly perceptible.

It seems to me that the case is worthy of record from the success of an operation performed *in extremis* and without any assistance, and from the fact that, contrary to the usual history of syphilitic stenosis of the larynx, the stenosis disappeared under treatment, and the tube which had saved the patient from suffocation could be safely dispensed with after three months' wear.

OLD FRACTURE OF BOTH PATELLÆ; FORMATION OF BONE IN THE LIGAMENOUS UNION.

By HERBERT W. PAGE, M.A., M.C. CANTAB.

A MAN, aged fifty-three, who was recently under my care in St. Mary's Hospital because of a self-inflicted throat wound, was the subject of old fracture of both patellæ, in which distinct bony formation was to be felt in both the ligamentous bonds between the widely separate fragments. The condition observed is so unusual that the facts seem worthy of record. They are as follows:—*Right patella*: Broken thirty-three years ago; simple transverse fracture by muscular violence; fragments separated two inches, and connected by distinct ligament of the usual character. In the centre of this ligament is a portion which is much harder than the rest and moves with it, and gives the impression of a small piece of bone having been let into it. This harder, or osseous, piece is of the same width as the ligament, and measures about a quarter of an inch from above downwards. The condition is not nearly so obvious in this leg as in the other; and, indeed, it may be doubted whether it would have been possible to tell what it was, had not the nature of that in the left leg been quite unmistakable. *Left patella*: Broken thirteen years ago; simple transverse fracture by muscular violence. Hasty examination would lead to the idea that the patella was broken into three pieces; but a more careful investigation shows that the upper and lower fragments are of the usual character, the upper portion being rather larger than the lower, and the two together being sufficient to form a patella somewhat above the usual dimensions. These fragments are clearly united by ligament, in the centre of which—or to be more exact, an inch and a half below the upper

fragment and an inch above the lower—is a distinct bone formation, of the same width as the ligament, and freely incorporated with it, feeling like a flat plate of bone laid upon or let into it, and measuring nearly half an inch from above downwards. There could be no doubt that it was bone, for lateral compression had no influence in diminishing its width, as in the case of the true ligament. Nothing in the feel of the fragments of either patellæ, of their surfaces or margins, led to any suspicion of the bones having been originally broken into three pieces; nor did the history suggest any other cause than muscular violence for the injuries. In both instances the man had been in hospital about six weeks, and both times had left with his leg put up in starch. That was all he could tell us as to treatment.

I have examined, as probably have most surgeons, a large number of old patellar fractures, but have never met with anything of the kind before, nor in many works consulted have I been able to find the description of any like thing. In a recent paper by Ollier of Lyons on Resection of the Knee,¹ is the record of a case of excision of the knee in which the patella was removed after completely detaching it from its periosteum, and we read in the account as follows: "Une particularité curieuse à signaler c'est qu'il s'est reformé une nouvelle rotule dans la gaine périostique conservée. Cette rotule est sensiblement aussi large, mais moins épaisse que celle du côté sain." The curious circumstance of Ollier's case is surpassed by the curiosity of my own, and it is difficult to say by what tissue the new bone had been formed. Hardly by periosteum, for, even if some periosteum had been stripped off, it seems altogether unlikely that pieces of it could have become so detached as to lie in the positions occupied years after by these plates of bone. Not from bits of the patellæ themselves, for it is inconceivable that muscular violence could have rent each of the bones into three fragments. Were the plates formed by some unwonted effort of nature towards bony union, instead of the ligamentous union with which widely separated fragments of broken patellæ have usually to be content? It is strange, if so, that the effort is so rarely made, and in asking the question, and, indeed, in an appeal to nature, there lies a confession of inability to account for the *particularité curieuse* met with in this case, which may be of interest to others besides those who saw it in St. Mary's Hospital.

NOTE ON THE ORDER OF ADMISSION OF LUNATICS TO ASYLUMS.

By J. A. CAMPBELL, M.D., F.R.S.E.,
SUPERINTENDENT OF THE COUNTIES ASYLUM, CARLISLE.

LAWYERS, as a rule, draw up our laws, and do so after their own fashion; and they cannot be reasonably blamed for doing so. They make all that they have to do with wordy, and no doubt accurate; but, unlike medical men, much that lawyers have to do, and to do with, can be done by their subordinates. They are able to get all their details filled in by clerks, whom they pay at a low rate, and they are able to charge as if the work was done by themselves. Now, except in some very exceptional posts, medical men have to do the work that they charge for themselves, and it would be greatly for their interest if in all matters where their duties take legal form in writing that repetition should be avoided, that a minimum of legal formality of description and designation should, where consistent with accuracy and legality, be the rule, not the exception.

It is probable that a Lunacy Amendment Act will during this session come before Parliament, and as the order of reception of lunatics must necessarily be included in the measure, I think it not at all uncalled for at this juncture to make some remarks on the order which has hitherto been in force, to offer some suggestions, and to give a sketch form of what appears to me would not only fulfil all legal requirements, but lessen trouble and avoid the present numerous pitfalls for errors, omissions, and misstatements which may so readily result from the form in which the present order is couched. I think this matter is of such importance that medical men should discuss it at some of the Medical Societies, and should indicate to the legal authorities their views on the subject. I shall have done my part in directing attention to it, and in shortly discussing the following:—

¹ Revue de Chirurgie, 1887, p. 607.