sixteen cases where I reached forty-grain doses, this effect followed eleven times; and there was only one failure of the expected result in fourteen cases where fifty- and sixty-grain doses were employed. I never had any ill result from the larger doses. On no occasion was sickness produced, except in one, and that was doubtful; for, whether that man were taking the medicine or not, or whether he were taking forty- or sixty-grain doses, he was sometimes sick, having been a frightfully heavy drinker before becoming insane. I cannot say that I have noticed any particular relation between previous intemperate habits and the dose of chloral needed to cause sleep.

Effect on Temperature.—There is much diversity of opinion as to the effect of chloral on the temperature of the body. Many observers have noticed that it seemed to reduce it with great certainty and rapidity in certain feverish affections; others have not obtained at all the same results. In the insane, I may observe that the morning temperature is higher than in the sane; but the great and distinguishing peculiarity is that the evening temperature rises in the insane. In one form of insanity (general paralysis), the evening temperature, instead of being lower than in the morning, as in health, is in every case higher, and in certain exacerbations of the disease becomes very high indeed. Those facts were deduced by me from an extensive series of experiments, and have been since confirmed by other observers. I had also made a large number of careful observations as to the effect of opium, bromide of potassium, cannabis Indica, alcohol, and food, on the temperature of the body when given in various forms of insanity, so that I was in a position to compare the effects of chloral with those agents. On going through the records of the cases in which chloral was given, and in which the temperature was noted, I find that in some of them the temperature kept up as high after the administration of this medicine as it had been before, while in certain other cases the temperature seems to have been decidedly lowered. In general paralysis chloral does not seem to have the power of reducing the abnormally raised evening temperature, while in simple mania it certainly does often do so. And this I consider one of the strong points in favour of chloral. I have found that substances such as opium, which raise the temperature, tend to reduce the weight—in other words, to interfere with the general nutrition of the body; while bromide of potassium in moderate doses appears to reduce the temperature, and the patients fatten while taking it. Alcohol in large doses also greatly reduces the temperature; and practical experience had long before shown the good effects of stimulants in acute insanity. If we consider the matter, this is as might be expected. The abnormal action of the brain, causing increased heat, burns away the tissues. Any substance acting on this abnormal action so as to reduce the heat more to its proper standard in health, is likely to do good. In one case of puerperal mania, the patient's temperature was 100 degrees when she went to bed. She had forty grains of chloral, slept eight hours, and at ten o'clock next morning it was 98.2 degrees; and this is merely one example.

I made some special observations on seven cases of chronic and remittent mania, on whom I had observed the effects of opium, bromide of potassium, and alcohol. The doses I gave to each were one drachm of tincture of opium, one drachm of the bromide, two glasses of Scotch whiskey, and first thirty grains, then forty grains of chloral; taking the temperature before giving the dose, and then an hour after it. I found that chloral lowered the average temperature, taking all the cases together; but not to any great extent, not nearly so much so as the alcohol. In some individual cases it did so strongly, while in other cases it was raised, and this seemed to bear no relation to the drowsiness or sleep produced. I confess that I am as yet quite unable to tell all the conditions under which chloral affects the temperature of the body. I took a dose of fifteen grains, which raised my temperature half a degree. It caused a sense of drowsiness, fullness of the head, and stupidity. Those effects quite passed off in two hours.

My experience of chloral, therefore, from having given it in forty cases of various forms of insanity, may be thus summed up.

1. It has proved a most safe and certain sleep-producer. It seems certain that by it we can compel sleep in any case.

2. By means of this property, attacks of insanity may probably be warded off in some cases.

3. Its action in abating and soothing excitement is more uncertain than its sleep-producing power, and lasts a shorter time than that of any signally powerful drug; but it is most valuable in certain cases, especially in some recent and curable ones, where formerly we should have been afraid to give opium. It has no directly curative action, but it evidently could be so employed as to tide over short attacks of insanity, and to prevent certain cases from being sent to lunatic asylums.

4. Whether it does good or not, it never does harm. In this respect it is the very king of all narcotics.

5. Its effect on the temperature of the body is variable in different cases, and in the same case at different times; but generally it is to reduce the temperature slightly, taking the average of a number of patients. It differs from opium in this respect, which raises the temperature; but the reduction caused by chloral is not nearly as great in maniacal excitement as that caused by alcohol in large doses.

6. It should be given to subdue brain-excitement in doses beginning at twenty or thirty grains, repeated from three to five hours. To produce sleep in great excitement, from forty to sixty grains are required, the latter dose not failing in one per cent. of the cases.

CASE OF COMPLICATED LITHOTOMY SUCCESSFULLY TREATED.*

By LAWSON TAIT, L.R.C.S. Ed., M.R.C.S., Wakefield.

R. G., aged 36, was sent to me by my friend Mr. Hirst, of Boyne Hill, in February last, on account of some bladder-symptoms and a fistula in the perinæum, complicating a stricture. The stricture admitted No. 5 bougie, and on the instrument reaching the bladder, it impinged on, as I thought, two rough calculi. Two false passages which existed in the neighbourhood of the stricture rendered it impossible to get an instrument with the sharp curve of the ordinary sound into the bladder. Examination by the rectum discovered a prostatic tumour, about the size of a walnut, situated posteriorly and slightly to the left of the urethra—in fact, directly in the way of the lateral incision. From the hardness of the tumour, I thought it might be a prostatic calculus. Examination of the urine shewed it to be free from albumen and tube-casts; but pus and oxalate crystals existed in abundance. The patient also drew my attention to a very profuse purpuric rash which covered his legs, and I found that his gums were spongy.

His sufferings were very great; he had not been able to work for many months; the stricture had existed for twelve years; and the fistula, which consisted of two tracks leading from behind the triangular ligament forward to the posterior edge of the scrotum, and the purpura had existed for many months. Altogether, the conditions were nearly as unfavourable as it is well possible to imagine. Crushing was entirely out of the question; and I resolved to cut. But there was before my eyes the fear of hæmorrhage, owing to the purpura. The patient, therefore, went back to the country, continued the appropriate treatment employed by Mr. Hirst, and returned in about a month somewhat improved in health.

On the morning of March 2nd, when I had resolved to operate, he presented, however, a fresh crop of purpuric rash; a circumstance which very nearly prevented me from proceeding: but, with the kind assistance of Messrs. Hirst, Hollings, G. F. Naylor, and other friends, I accomplished the following operation. Having passed a small curved staff into the bladder, I passed a probe down the fistulous track nearer the middle line, and, slitting up its posterior third, my knife entered the staff as if for perinæal section, divided the stricture, was then turned as if for the lateral incision, and passed on to the prostate. Here I found a little difficulty in keeping the knife in the groove of the staff; but, with a little care, I passed it into the bladder, cutting through an abnormally resisting structure. Following with my left forefinger, I at once recognised this stricture as a very large instance of the prostatic myoma, described by Thompson and Virchow; by the removal of which in certain cases, Sir William Fergusson has recently added something new to the operation of lithotomy, and not a little to his already immense reputation for skill and daring in operative surgery. My finger next recognised that, instead of two stones, the bladder was occupied by one large calculus of an oblong ovoid shape, and with a circular constriction in the middle, which had conveyed to me the false impression of the presence of two calculi; had I been able to introduce a sound into the bladder, I might have avoided this mistake. The calculus proved to be a mulberry specimen, weighing five hundred grains. Introducing a probe-pointed bistoury along my finger, I extended the lateral incision through the tumour to an extent which I thought needful for the extraction of the stone; and the result was, that I either completely or almost completely bisected the tumour, which was very resisting, and projected a good deal into the bladder. The removal of the stone was not difficult, but needed a little dragging. After its removal, examination of the wound shewed me that the segments of the tumour had been partially dislodged, that it was capsulated and might be removed. I was strongly tempted to attempt its removal; but, having waited a few minutes and found that there was no bleeding, I hesitated to run further risk, and remarking that the section of the tumour might

* Read before the Yorkshire Branch, March 15th, 1870.

lead to its atrophy, I desisted from further interference with it. I think that the result justified my discretion; because oozing of blood went on for three days, when it was checked by a few doses of turpentine. Had I torn across a small artery in the removal of the tumour in a position where I could not have reached the bleeding point, the result might have been fatal. It is, however, as Sir William Fergusson has written to me on the subject, all well that ends well; and the patient went home on the seventeenth day with the wound all but healed, the fistulous tracks entirely closed, and No. 9 catheter could be passed easily into the bladder.

With reference to the tumour, Sir William writes that he would probably have removed it; and he would, of course, have been justified in so doing. But, for my part, this was a point which was decided mainly on selfish grounds. I did not dare to run the risk of any further complication, a risk which would have been nothing to the Professor of Clinical Surgery at King's College.

Sir William has given me his opinion that the tumour probably will not atrophy, against my own hope that it might, as similar growths sometimes do in the uterus after an incision.

May 2nd. I saw this patient a few days ago, and could pass No. 10 bougie without any difficulty. The prostatic tumour is less than half its normal size, and the purpura has entirely disappeared.

OBSTETRIC MEMORANDA.

CASE OF SUDDEN DEATH TEN DAYS AFTER LABOUR.

By W. C. WORLEY, L.R.C.P., M.R.C.S.

MRS. W. was a slightly built active young woman, aged 23, confined of her first child on December 5th, 1869. During pregnancy, she had enjoyed good health, but her friends said that she was accustomed to tight-lace herself to such a degree that no one suspected, until the last months, her condition. She had for several years been subject to shortness of breath upon slight exertion, but only on one occasion consulted a medical man, and then only took one bottle of medicine. The labour was of short duration, perfectly natural, with very little loss of blood; she progressed with remarkable rapidity to an apparent convalescence, and on the eighth and ninth days was sitting up. On the morning of the tenth day, at 8 a.m., she had breakfast. At 8.30 a.m., while suckling the child, she suddenly complained of her head aching, and great want of breath; she then began to beat her chest, scream violently, and struggle hard for about ten minutes on the bed, and fell suddenly backwards at 8.40 a.m., when I arrived, and found her *in articulo mortis*.

Considering it probably a case of embolism of the pulmonary artery, I obtained permission to open the chest. There was a small quantity of dark-coloured fluid in each pleura, but no roughening nor adhesions of the membrane. The lungs were remarkably emphysematous, especially on the right side. Both bases were nearly solid, of a dark chocolate colour, oedematous, and gorged with blood; the same appearance, in a less degree and diminishing towards the apices, was presented by the posterior halves of both lungs. There was no appearance of any clot or breaking down of lung-tissue on section, but the bronchial tubes were filled with frothy mucus, and the whole surface of both lungs was dotted with numerous dark-bluish ecchymoses, of the size of pin-heads. On opening the pericardium, there was very little fluid. The right ventricle was collapsed and perfectly flabby; while the left ventricle appeared rounded and contracted. There was a fair amount of fat on the surface of the heart. The right ventricle was quite empty; but, immediately above the valves of the pulmonary artery, a large clot, tolerably firm and of a dark claret colour, was found, completely filling the vessel, and was traced uninterruptedly into the right and left pulmonary arteries and their subdivisions, even into some of the smallest. In one of the subdivisions of the right pulmonary artery, a firm greyish clot, not breaking down under the finger, was found. The semilunar valves were healthy. Apparently in the substance of the anterior division of the tricuspid valve, there was a dark ecchymosed patch, of the size of a pea; but the surface of the valve was smooth. The right auricle was flabby, dilated, and quite empty. The walls of the left ventricle were at least half an inch thick, and the musculi papillares were remarkably developed. The aortic semilunar valves were healthy. The chordæ tendineæ of the mitral valve, at their valvular extremities, were thickened and uniformly nodular; otherwise normal. The ventricle was perfectly empty and very much contracted. The walls of the left auricle were rather thick, and its cavity was empty.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

A REMARKABLE CASE OF RAPID GROWTH OF HARD CANCER IN THE MAMMARY GLAND.

By WM. S. SAVORY, F.R.S., Surgeon to the Hospital.

E. R., aged 40, a small spare woman, unmarried, was admitted into St. Bartholomew's Hospital on the 14th of September, 1869. A considerable part of the right mammary gland was occupied by a hard dense tumour, of the size of a walnut, which no one who saw the case doubted to be carcinoma. The skin over the most prominent portion of the tumour was adherent to it, but not otherwise apparently affected. The nipple was retracted, and there was some superficial ulceration at the lower and outer border. She said that at times the pain in the breast was very great. The tumour had been slowly growing for two years and a half. Shortly before it appeared, she had received a blow on the breast. No enlargement could be detected in any of the neighbouring glands.

In the substance of the skin of the chest, at the distance of two or three inches from the tumour, and about the same space apart, were three spots or small pimples, scarcely larger than a mustard seed, hard, circumscribed, and somewhat dusky on the surface. The opposite mammary gland and the skin around it were very carefully examined, both by myself and by some of my colleagues, and nothing wrong could be detected elsewhere.

It was determined to remove the tumour and the whole of the gland in which it was situated, including all the skin that was adherent, and a broad margin of it around. Although the character of the pimples in the neighbouring skin was suspicious, they lay too wide of the tumour and too far apart to admit removal except by an operation, which, from the amount of integument that must have been sacrificed, would have been far more formidable; and their nature was so far doubtful that it was decided, while their existence did not declare positively against the operation, that they should be watched, and subsequently dealt with if they proved to be cancer. Therefore, on the 18th September, the whole mamma, including an elliptical portion of the skin over it, was removed.

About nine or ten days after the operation—she was uncertain of the exact date, but it was clearly within a fortnight—she noticed that the other breast became suddenly enlarged and hard. To use her own words, "it swelled up all at once and has not increased since." She did not, however, call attention to this until a fortnight after her discovery, when the whole gland appeared transformed into a hard, dense, stone-like mass. The nipple was slightly retracted; the skin seemed natural and was nowhere adherent, and the mass moved freely on the muscle below.

From the date of its discovery no perceptible alteration was observed in the tumour. The wound of the operation gradually closed. The two upper spots in the skin did not alter, but the surface of the lower one became excoriated, and subsequently a small superficial ulcer formed on it. Moreover, around the whole circumference of the wound, especially above and below, the skin became studded with numerous hard tubercles, some of these feeling like shots in the integument. Shortly afterwards, the axillary and cervical glands on the left side began to enlarge and harden; but just at this time she, at her own desire, left the Hospital.

No family history of cancer could be traced in her case. Her own health previously to the appearance of the first tumour, and, indeed, even subsequently, was very good. I am not aware that there is on record a case in which a tumour of cancer, especially of hard cancer, has grown so rapidly as in this instance. I can vouch for the fact that immediately before the operation the opposite breast was carefully examined. It was a small, soft, flaccid gland, with scarcely any fat over it, and nothing in the least degree suspicious could be detected. There is no reason to believe that the woman was in error as to the date at which she discovered the sudden change in it; and, at all events, it is clear that within a month after the operation the entire gland was converted into an uniform stony mass.