Feb. 6th. He had been almost free from pain. The urine was turbid; his pulse was stronger; the appetite was improved.

Feb. 7th. He could bear pressure on the affected part; had no pricking sensation; he was almost free from pain.

Feb. 8th, 9th, 10th. Oxygen was used daily since the 7th. He had been free from pain. The health had been daily improving, and the appetite was excellent.

Feb. 26th. Since the 10th, oxygen had only been used every other day. He was perfectly well.

Feb. 7th, 1862. Wm. R.—has been quite free from any ailment since February 1861; and during the larger portion of the time he has been able to follow his usual vocation as a labourer.

CASE OF MAMMARY CANCER: REMOVAL: RELAPSES.

By FRANCIS TROUP, Esq., Auchtermuchty, Fife.

ABOUT the middle of December, 1858, I was requested to see H. A., aged 45, unmarried. Sixteen months previously, when washing herself, she noticed that the left nipple was retracted; and, on handling the breast, felt it hard and heavy. This did not disturb her till twelve months afterwards, when the skin of the areola began to ulcerate, and thereafter, the whole breast to become the seat of frequent lancinating pains. A medical man was then consulted; and poulticing with the bruised leaves and stalks of *Stellaria media* was recommended. The ulceration spread, and the darting pains increased, despite this treatment; and when I saw the diseased mamma for the first time, it presented the following appearances.

Within a circle of two inches diameter—the centre of which was the much retracted nipple—the skin of the left breast was excavated by a chain of small ulcerations, with hard and everted edges, surfaces discharging thin pus, and bleeding from the slightest touch. The periphery of the ulcerations was surrounded by swollen and purplish-red integument; and, externally still, for another half inch, the skin, particularly on the upper aspect of the mamma, was firmly adherent to the parts below. The whole gland was hard and stony, not knobbed, and could be freely moved over the pectoral muscle. In the axilla, a cluster of similarly hard and mobile glands could easily be felt. The patient, a person of lively disposition and great moral courage, had but little of the green-yellow complexion of malignant disease. She menstruated regularly; her pulse was rapid; and her appetite had only lately begun to fail. There was no history of ancestral cancer or consumption; both parents had lived to very old age; and one sister had died of typhus.

The patient was anxious to be rid of the disease, and willingly accepted all risks, immediate and future. Accordingly, assisted by Dr. John Lyell of Newburgh and his son, on December 29th, 1858, I operated. Incisions, forming a broad oval and traced in sound skin, were made round the diseased mass, and the dissection was carried down to the digitations of the pectoralis, a part of which was cut away, as it was incorporated with the tumour, and the disease thus cleanly removed. Many vessels sprang; but were merely closed by torsion. The flaps, with a great deal of straining at their sternal half, were approximated by seven silver wire sutures. Adaptation was perfect, save at the three most sternal sutures; there the incisions met only where the stitches were tied. The axillary glands were then dissected out. A fold of skin was pinched up, as in herniotomy, the knife run through it, and the indurated glands hooked up with a tenaculum, and, chiefly by tearing, removed. In four weeks the whole incisions had closed.

The parts removed weighed one pound. When cut into, the tumour was crisp and resistant. The cut surfaces in the neighbourhood of the nipple were veined with radiating white-blue bands; elsewhere they were yellowish, and flecked here and there with arborescent deeper yellow streaks. The first section disclosed three or four cavities of the size of peas, filled with semifluid glistening matter, which the microscope shewed to consist of exceedingly numerous crystals of cholesterine, molecules, oil-globules, and brown-black granule cells and masses. The solid matter composing the yellow streaks could be picked out in nodules; these, when crushed and examined, consisted of free nuclei, fatty cancer-cells, free fat, granule-cells, and more rare cholesterine-crystals. Hence, probably the cavities seen on section were originally the site of nodules of the yellowish matter—the so-called reticulum—whose cell-elements, having undergone fatty degeneration and disintegrated, so left the cavities. The surfaces of all the sections made soon bedewed themselves with a dirty white fluid, which consisted of granule-masses, oil-globules, and cells, round, oval, oblong, and caudate, with nuclei, varying in number from one to five; the more spherical cells almost invariably only containing one, which then nearly filled the envelope. Save on the pectoral aspect of the tumour, sections made with Valentin's knife shewed little trace of filaments; but in that quarter they were numerous, interlacing confusedly among the cell-elements, or forming band-like trabecule, the interstices of which were stuffed with largely nucleated round and oval cells. Sections of the axillary glands shewed the same absence of fibres and more common fusiform and caudate cells, including secondary ones; no reticulum nor cavities. On removing the areolar tissue and fibres of the pectoralis from the under aspect of tumour, its surface was seen to be bossed with cysts tensely filled, so that the fluid contents squirted out on puncture. These cysts were as large as a hazel-nut, or as small as a pea. The fluid in every one opened was amber-coloured, and slightly glutinous; that of the smaller ones contained no cell-forms, but was finely molecular—the molecules being soluble in ether; that of the larger presented, first, abundance of very finely granular, or homogeneous and transparent, uninucleated, round, and cylindrical cells, varying in size from 3-7000ths to 12-7000ths of an inch; and also, aggregated patches of cylinder cells in single stratum. Acetic acid caused some precipitation or coagulation in the interior of the isolated cells; for they became darker and coarsely granular under its action. The walls of the cysts were composed exteriorly of connective tissue, with numerous spiral and anastomosing fibres of various degrees of fineness, interpenetrating it; internally, of cylindrical epithelium in single layer; the aggregated patches of cells seen floating in the fluid contents of the larger cysts being, doubtless, detached portions of this lining.

For more than a year, the patient remained free from disease, but at last it returned in the arm-pit. The lump there was, in February 1860, of the size of a small egg. As her sufferings were severe, she wished again to be operated on; and this time, I enucleated the tumour by M. Maisonneuve's plan of circular cauterisation. The base of the swelling was circumscribed by seven or eight punctures with a bistoury, and when the knife was withdrawn, a like number of flat conical arrows, made of Canquoin's paste, were pushed into the openings so made. In a few hours, the mass thus isolated was dead; and in ten days had sloughed out, leaving a healthy sore, which rapidly filled up, and I had again the satisfaction of seeing my patient free from pain. But in five or six months, the old induration was again begun; and now, December 23rd, 1861, the axilla is one large open ulcer. As yet, the mammary cicatrix is sound (three years after operation); but at its sternal extremity there

is a suspicious looking tubercle, the size of a split-pea, which I doubt not is cancerous.

My case will not favourably contrast with that of Mr. Haynes Walton, related in the *JOURNAL* of December 14, 1861. Possibly, the disease had not been thoroughly eradicated from the axilla in the first operation; more possibly, at forty-five years, the formative processes, whether physiological or pathological, can more easily and in shorter time evolve tissues, healthy or morbid, than at sixty-four.

Transactions of Branches.

BATH AND BRISTOL BRANCH.

LITHOTOMY BY ALLARTON'S MEDIAN OPERATION.

By AUGUSTIN PRICHARD, Esq., Clifton, Bristol.

[Read Nov. 28th, 1861.]

J. S., aged 35 years, was admitted under my care into the Bristol Royal Infirmary, on the 8th of last October, suffering severely from disease of the urinary organs. Two years before his admission, he had met with an accident, and had fallen across a joist, producing some extravasation of blood and other serious symptoms. For the relief of this injury, he underwent some surgical operation, at the hands, I believe, of our late associate Mr. Godfrey; and a catheter was kept for some days in his bladder, being withdrawn covered with phosphates. He was subsequently under the care of one of my colleagues at the infirmary, and left, being relieved from the urgency of his symptoms, but without the discovery of the nature of his disease. Upon admission as my patient, he seemed to be suffering excessive pain, being much emaciated, with hectic and constant dribbling away of his urine, with intense burning pain in the region of the bladder. He was a man with a very dissatisfied, complaining way; and, having undergone much surgical treatment, was very *au fait* with his technical expressions, telling me that he had "ulcerations in his urinary passages", and "inflammation of the neck of his bladder".

I ordered him some tragacanth mixture with alkali, to relieve some of the irritability of his bladder; and an opiate at night; and for some days took but little notice of him. He appeared, however, to suffer so severely, that it was necessary to investigate his case more completely; and I therefore passed a sound, which slipped into his bladder with the greatest ease, and came directly upon a stone. I judged from this fact that the stone was large.

The operation was performed on the 18th of October, the patient being under chloroform, and held up, after the introduction of the sound, by the lithotomy-straps which I have before described, and which answer their purpose admirably in any case requiring full exposure of the perinæum. I made a small external cut, opened the urethra, and passed the probe and then the finger easily into the bladder; and, after two or three trials, in consequence of the forceps slipping, I withdrew, without any particular difficulty, a regular oval calculus, weighing *three ounces and forty-nine grains*, and measuring two inches and five-eighths in length; in width, one inch and three-quarters; and in thickness, an inch and three-eighths. (Fig. 1.) It was composed of phosphates and lithic acid. There was very trifling hæmorrhage; and, upon talking to him in the ward when he recovered from the chloroform, he had no idea that any operation had been performed, and was very much astonished when I showed him the stone.

From this time he had no trouble for more than a fortnight; and, although all the urine came through the

wound until the sixteenth day, he soon obtained the power of retaining it in the bladder, and thus the bed was kept in a comfortable state. On the 3rd of November, the urine began to flow through the urethra, and the next day all came the right way; but he was seized with acute orchitis of the left side; and, as soon as this yielded to treatment, the other testicle became inflamed, and retarded his recovery.

Fig. 1.

He went out very much improved in condition and general health; and, in fact, I should have reported him quite cured five weeks after the operation, had he not said, on the day when he went out, that some drops of urine passed *per anum* when he passed urine. I had no other evidence that his rectum had been in any way damaged; and he told me that this symptom, which he had noticed since he got up, was daily decreasing.

Before making any comments upon the operation, I will have the pleasure of narrating three other successful cases not yet recorded, the reports of which have been kindly sent to me. The operator was my friend and namesake, Mr. H. L. Prichard, of Taibach, Glamorganshire, one of those numerous iron districts of South Wales, where so much energetic and skilful surgery is needed and practised. The cases, which I give very nearly in his own words, will speak for themselves.

CASE 1. D. H., aged 15. The operation was performed June 10th, 1859; and the bladder was reached without difficulty by the median section, as recommended by Mr. Allarton; and the stone, although its smallest diameter was nearly *two inches*, and its weight more than *two ounces and a half*, was slowly but easily extracted. (Fig. 2.) The hæmorrhage was very slight, and

Fig. 2.

the case gave no trouble until the fifth day, when vomiting and purging came on and kept the man very low for a week, after which he rapidly recovered. He retained