was the condition of the sweat-glands, and their relation to the disease. This was the more necessary, on account of the view as to the origin of the cell-growth from these glands which has been advanced by Dr. Thin. But I have nowhere been able to discover any relation between the rodent masses and the sweat-glands. The latter certainly undergo changes, but these are changes of disintegration, not of morbid growth; and they are to be detected, not in portions of the skin becoming affected, but in those portions in which secondary inflammatory changes have been set up. The sweat-coils seem indeed to be the last of the skin-structures to be affected, and a quite normal gland may frequently be seen side by side with a glandiform mass, or with a diseased hair-follicle or sebaceous gland. But so soon as the skin becomes inflamed and infiltrated, the sweat-glands suffer. In consequence of obstruction the coiled tube becomes dilated, and its lumen choked with epithelial debris. (Fig. 7.) In some specimens the gland-epithelium appears unaltered, or the cells may be at first diminished in size from pressure. But, as the ulcerating edge is approached, and the skin is found more infiltrated, the gland-epithelium becomes swollen. The cells are larger, and their outline becomes less distinct, so that the nuclei seem embedded in a granular mass. (Fig. 8.) As this cloudy swelling of the gland-epithelium takes place, the behaviour of the cells towards staining agents is markedly changed. In striking contrast to what happens in the case of developing rodent tissue, these swollen gland-cells stain very imperfectly, or scarcely at all, indicating, in this manner, that they are involved in a process of disintegration, not of proliferation. The stages of their disintegration may, in fact, be readily followed, keeping pace with the general infiltration of the skin, till the glands become finally broken up.

These facts, with regard to three cases of rodent ulcer, are altogether in agreement with the results of my previous study of the disease. They seem to me, therefore, to justify certain definite conclusions. In the first place, they are entirely opposed to the view of Dr. Thin that rodent ulcer is a cancerous adenoma of the sweat-glands. The number of cases which I have examined in an exhaustive manner, would certainly not warrant the position that rodent ulcer never begins in these glands. But even in Dr. Thin's investigations the connection between the rodent masses and the sweat-glands was not traced; and it seems probable that, where morbid changes have been found in them, these have been of the secondary character which was undoubted in the cases I have described.

The only conclusion which seems to be borne out by all the facts, both pathological and clinical, is that rodent ulcer is a form of epithelial cancer which begins in the external root-sheath of the follicles and in the sebaceous glands. It is of the same essential nature, therefore, as epithelioma; but it differs pathologically in the mode of development of its cell-growth, just as it differs clinically in the absence of gland-infection and in its slight general malignancy.

Some explanation of these clinical differences may be found in the character of the cell-growth in the two diseases. In epithelioma, there is a marked tendency to an unrestrained cell-infiltration of surrounding structures, so that infection of the lymphatic system readily occurs. The cell-growth of rodent ulcer, on the other hand, is in the form of isolated masses which, originating in the follicles and sebaceous glands, are, at least for some time, restrained by the firm fibrous sheaths of these structures. The tendency of these masses is, therefore, to cause, by their pressure on the tissues, a persistent ulceration in which they, as well as the tissues, perish. But because this local destruction takes place rapidly, and because of the absence of cell-wandering, lymphatic infection is not prone to occur.

The suggestion was made some years ago by Mr. Jonathan Hutchinson, that the difference between the two forms of epithelial cancer must be determined in some way by the difference of locality in which they occur. The foregoing account of the genesis of the cell-growth in rodent ulcer, seems to supply the rationale of this suggestion. Commencing in the continuity of a skin-surface, rodent ulcer is peculiarly apt to attack that part of the face—the side of the nose—in which the sebaceous glands are strongly developed, and I have endeavoured to point out the manner in which the structure, when the disease begins, determines its onward course. As bearing upon this supposed influence of locality, it would be an important point to decide whether an ulcer which began as undoubted rodent ulcer in the upper half of the face may not become changed to the epitheliomatous type, when in its ravages it reaches the region of the mouth. One or two cases which I have seen in a very advanced period of their course, in which the invasion of

the region of the mouth appeared to be speedily followed by glandular infection, seemed to lend countenance to this view.

EXPLANATION OF PLATE.

FIG. 1.—*a*. Broadened follicle with widened cavity (*b*). *c*. Outgrowth from one side of follicle. *d*. Groups of leucocytes.

FIG. 2.—*aa*. Two follicles undergoing transformation.

FIG. 3.—*a*. Lower portion of follicle breaking up in a brush-like manner. *b*. Upper portion still unchanged. *c*. Sebaceous gland with cell-proliferation around margin.

FIG. 4.—*a*. Sebaceous gland surrounded by broad band of cells. *b*. Sweat-coil, dilated.

FIG. 5.—A patch of rodent tissue resulting from the transformation of a sebaceous gland.

FIG. 6.—A small portion of Fig. 5, more highly magnified. *a*. Band of cells enclosing (*b*) atrophying gland-cells.

FIG. 7.—*a*. Dilated sweat-coils containing epithelial debris.

FIG. 8.—*a*. Sweat-gland, showing retrograde changes.

REMOVAL OF TESTIS IN PERINÆO ATTACHED TO PERITONEUM.

BY SURGEON J. W. H. FLANAGAN, A.M.D.

WITH reference to a case of testis in *perinæo* published in the BRITISH MEDICAL JOURNAL of July 21st, by Mr. J. A. Williams, I forward the notes of a case of this kind in which I lately removed the misplaced testicle. The case may be of interest, on account of the complication met with and the successful results of the operation.

S. S., aged 21, a private in the 2nd Battalion, Lancashire Fusiliers, stationed at Mhow, had been in hospital some time, suffering from the effects of an inflamed misplaced testicle. He had been in the service for about a year and a half, and during that time had been constantly coming into hospital from this cause. He stated that, whenever he marched or had to make any exertion, the testicle became swollen and painful, and he could walk with difficulty. He had suffered in this way before he enlisted. The left testicle, which could be felt to be very small, was situated in the left side of the

perinæum, beside the scrotum. This appeared to be normal, except for the absence of the testicle. The inguinal canal was full to the touch; but no impulse could be felt at any time on coughing, and there did not appear to be a hernia present. I got charge of the case about the beginning of June last; and as the man, in this condition, was perfectly useless as a soldier, and unfit for any employment which required exertion, and as he himself was most anxious to have the disability removed, I determined to take away the testicle. The only risk I contemplated was the great probability of the funicular process of the peritoneum covering the testicle being continuous with the abdominal peritoneum.

On June 20th, having placed the man under the influence of ether, I proceeded, with the assistance of Surgeons-Major Taylor and Macnamara, A.M.D., to perform the operation. Having made an incision over the testicle, I dissected the superficial structure until I reached the peritoneal sac, which, as we had foreseen, was continuous with the peritoneum. This was opened on a director, when a quite unlooked-for complication presented itself. The testicle,

which was less than an inch in length, was found to be attached by almost its entire circumference (about half an inch being free) to a large flat process of peritoneum which came down through the inguinal canal into the sac, down the centre of which the cord could be felt running to the testicle. This process of peritoneum was a double layer of thick membrane, and was freely movable in the canal, and felt as if it could be pulled down to any extent. I dissected this from the testicle, commencing at the free extremity at each side, and cutting close to the cord and vessels. These were then tied with carbolised catgut ligature. The wound was next thoroughly cleaned out with weak carbolic lotion, and sewn up with carbolised ligature. Lint, soaked with carbolic lotion, was then applied to the wound, and a piece of ice kept on it all day. Slight oozing of blood—just sufficient to stain the dressing—took place during the day. In the evening, I applied a dressing of lint soaked in a mixture of one part of compound tincture of benzoin to two parts of glycerine, and kept tight by a spica-bandage. A pill composed of half a grain of opium and two grains of quinine was given every third hour.

June 21st.—He was doing well; no fever; pulse 88. He slept well; felt some pain in the left side of the abdomen. The pills were continued. The temperature rose to 100.2° the previous evening; the pulse was 88 in the evening.

June 22nd.—Temperature 99°; pulse 88. There was some pain along the course of the spermatic cord, but no pain or swelling in the rest of the abdomen. Evening temperature 100°; pulse 88.

June 23rd.—He had considerable pain along the course of the cord. Temperature 98°, pulse 84. There was a good deal of swelling about the seat of the wound, which had almost healed up. The pills were discontinued and an enema administered, which produced a copious evacuation, after which patient felt much better. Evening temperature 98°, pulse 84. The patient, according to the accounts of the other patients in the ward, had a fit in the evening, which only lasted a minute or two, and was over before the apothecary could get to the ward. He did not froth at the mouth; the convulsion appears to have been a very slight one.

June 24th.—The patient complained of considerable pain all over the abdomen, but especially severe on the left side. There was no swelling or tympanitis. Temperature 98°; pulse 84. The wound had completely healed up, but as I did not consider this desirable as yet, I made a small opening with a probe at the lower angle, and introduced a small piece of lint soaked in carbolic oil. There was a good deal of swelling about the seat of the wound, which felt very hard. Hot poppy-fomentation was applied to the abdomen, which gave great relief, and the patient felt quite easy in the evening.

June 29th.—The case had progressed very favourably. There was still some pain in the seat of the wound and a small swelling just below the interior extremity of the wound, which had a feeling of fluctuation, as if a collection of pus had formed. I made a small incision, but only some blood escaped. The bowels were acting regularly.

From this time, the case progressed in the most favourable manner. A hard swelling, due, doubtless, to the effusion of lymph from the cut surfaces of the peritoneum, remained in the perineum, at the seat of wound, for some time; but this gradually disappeared, and the man was discharged cured from the hospital on July 23rd. I had been removed from the station a few days previously. I hear that he has since been doing his duty in the ranks, but was again admitted a few days ago for a small fistula, which is now nearly healed.

In this case the man was useless already, and would have been very likely to have had a hernia on any severe exertion, from the condition of the inguinal canal. I do not think there is much fear of this now, as the canal has most probably been firmly closed by the contraction of the effused lymph; and he is at present quite fit for the duties of his calling.

PRESENTATION.—A representative deputation of the inhabitants of Cramlin waited upon Dr. Magill of Lisburn, on December 7th, and presented him with an address and testimonial on the occasion of his removal to that town from Cramlin. The address referred in complimentary terms to the high regard and esteem entertained for him, and wished him every success in the new sphere of his labours.

FRAUDS ON MEDICAL MEN.—A man, who refused his name and address, has been sentenced to three months' imprisonment, at Leamington, for a series of frauds upon medical men. He represented that his name was John Murray Gibbes, brother of Dr. Heneage Gibbes, with whom he was on unfriendly terms; and that he had returned, weakened by rheumatic fever and with five motherless children, from New Zealand, where he had lost both wife and practice.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

THE INFLUENCE OF IODOFORM ON THE BODY-WEIGHT IN PHTHISIS.¹

Read in the Section of Medicine.

By A. RANSOME, M.D., Manchester.

ABOUT a year ago, iodoform was introduced to the English medical public, mainly by Dr. Dreschfeld, as a drug likely to be of service in the treatment of phthisis, when used internally and by means of inhalation. I determined to give it a trial at the Hospital for Consumption in this city. At first, I met with some disappointment; many persons, especially women, were unable to take it in consequence of the nausea and disturbance of the digestive organs that it caused. However, I still persevered, and gave it in the form of a pill, a grain and a half three times a day, to all the cases of phthisis who could take it. Shortly afterwards, at the suggestion of Dr. Marsh, I combined it with two grains of croton-chloral, and found that it was then much better borne by the patients, both male and female. Iodine and iodoform inhalations were also prescribed as a general test of its influence upon the disease. The weight of the patients was recorded for some little time before its use, and after its administration; and on the accompanying charts I have traced curves showing the loss or gain in weight during the treatment.

It seemed better to make no selection of cases; and it was given at all stages of the disease; and as patients seldom presented themselves in the incipient stage, the largest number of cases were in the more advanced stages of phthisis. The drug in several cases was stopped* for various causes, and again recommenced.

Owing to the causes that I have mentioned, there are only 21 complete cases recorded at the present time. Of these, 4 were in the first, 5 in the second, and 12 in the third stage of the disease.

Of the 4 cases in the first stage, 3 appear to have received benefit; one (R. Jones) gained 2½ lbs. in three weeks, and maintained her position for at least six weeks afterwards; another (S. Menzies) gained 2 lbs. in about one month, and although she lost weight somewhat on discontinuing the drug, she regained it again when the pills were recommenced. A third case (E. Lancell) gained 11 lbs. in four months, and was then lost sight of. The fourth (M. Cleverty) lost weight on the whole to the extent of 8 lbs. in three months.

Of the 5 cases in the second stage of the disease, No. 1 (McMillen) was losing weight rapidly when he commenced the treatment, at the rate of 3 lbs. in a fortnight; he then gained 1 lb. in the same space of time; lost weight on discontinuing the drug, gained again slightly on its recommencement, lost ground a third time on its omission, and entered on the third stage in about three months from the beginning of the treatment; but after again taking iodoform for several weeks, he improved and regained his former weight.

No. 2 (Ross) also took the drug intermittingly; he gained 2½ lbs. in ten days after first taking it; but after this it seemed to have little influence in arresting his downward course.

No. 3 (Brackenridge) presented a similar history, except that, in spite of sundry alternations of weight, he had on the whole gained somewhat in the course of seven months' treatment, during which time he had only omitted the iodoform for about three weeks.

No. 4 (Lockett) was a case of chronic pneumonia, which developed into phthisis after a lapse of four months. He was losing weight rapidly when he commenced the iodoform-pills; but since then he has gradually improved both in weight and in the condition of the lungs.

No. 5 (Matthews) has only been a short time under treatment; but he has gained 3½ lbs. in the first fortnight.

Of the 12 cases in the third stage of the complaint, 2 (Burns and

¹ This paper was accompanied by charts showing the progress of each case under the use of iodoform.