question which awaits further investigation. One can readily conceive, supposing the theory of this organ rendering fat fit for absorption to be true, that any implication, however slight, interferes with the process, and leads to emaciation. The previous indigestion seems to prove that an atonic condition of the stomach prepares the way for a more serious state of things; and that the first morbid deposit is accompanied with pain differing from the ordinary uncomfortable dyspeptic sensations. After a time, there is an amount of hypertrophy in the muscular fibres surrounding the pyloric end of the stomach, which greatly aids the passage of aliment into the duodenum, and then the former paroxysms of pain after a meal vanish; and should the cancerous deposition be going on but slowly, the health may mend, and the patient for a time indulge the hope of recovery. Such a course probably affords the true explanation of the change for the better in the poor woman whose case is first related. Then came a time when the disease so encroached on the muscular substance, that the slightest quantity of food in its passage caused exquisite pain, and she at last refused all nourishment. In the other woman, there was considerable hypertrophy of the muscular coat at the pylorus, and no infiltration of morbid matter; therefore, one might have expected greater freedom from vomiting, and less pain than in the first patient. The reverse was the case; and we can only attribute her more speedy dissolution to disease occupying such an extensive surface, and keeping up direct irritation throughout the whole cavity of the abdomen: added to which, her general appearance indicated a more delicate constitution, and one far less fitted to bear up against disease than was possessed by the former woman.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

OBSTRUCTED LACHRYMAL DUCT.

Under the care of HAYNES WALTON, Esq., Surgeon to the Hospital.

[Reported by MAURICE DAVIS, M.D.]

[Continued from page 682.]

In our last report, we spoke of the commencement of this affection, and pointed out that constitutional measures, with certain topical applications, may prove sufficient, and effect a cure. We now proceed to consider the later state, in which dilatation by mechanical means is requisite in addition to general treatment, either because the annoyances of the obstruction will not give way to any other method and are unbearable, or because there has arrived that most distressing condition—fistula. Now, it is just the advanced disease that is so common at the hospital; for besides that, in general, persons do not seek advice sufficiently early, there seems to be a large number of cases, the accumulation of years, that are in the habit of going from one medical institution to the other.

An accustomed eye very quickly recognises what may be called the chronic obstruction, for it is truly unmistakable, yet its symptoms must be told. The characteristics, according to Mr. Walton, are weakness of the eye, the eyelashes, especially of the upper eye-lid, are dragged, the inner canthus, and the skin around, to a slight extent, are often wet and soppy. The surface of the eye-ball is unnaturally moist. Over the situation of the sac, there is fullness, pressure on which discharges through one of the puncta, or both of them, tears, mucus, and pus. Sometimes, in addition, there is more or less of ophthalmia tarsi. A habit of winking, with inordinate action of the orbicularis palpebrarum, is common; being, perhaps, a natural effort to empty the duct. A preponderance in the severity of some of these, and an absence of others, must be expected in individual cases.

The actual state of fistula is generally readily detected; that is, when the aperture is single, and is directly over the lachrymal sac; but the abscesses by which it is produced may burst at a long distance from that spot, and sometimes sloughing causes two or more fistulae far apart. Sinuses, too, may at any time proceed from the false passage, and so tend to obscure the diagnosis, especially if the secretions which escape are allowed to incrust. We may state, that the disease for which fistula may be mistaken, is necrosis of some of the bones of the face. Mr. Walton has met with some cases in which the strictured duct, as a cause of the fistula, has been wholly overlooked, and this affection said to exist.

Before we go into the detail of treatment, we take the opportunity to state, if indeed it be requisite, that in these short reports we do not attempt to represent any views or opinions but those of Mr. Walton; and that what we record is strictly his own proceeding, and embodies the principles of his teaching. Further, we think it better in the present instance to depart from the usual routine of Hospital Reports, and not to detail cases, but rather give a summary of his practice.

When it is apparent that there is actual obstruction of the duct, no time is lost in dilating it, except there be such swelling of the parts over as to preclude this; when the tumefaction is first attended to, the abscess, as it may be, evacuated, or the erysipelatous attack subdued by punctures or other treatment, local or general. We will quote Mr. Walton's own words here. "When there is a fistulous opening, the course to be pursued is plain. The channel is completely obstructed, and must be re-established. Prior to that advanced state, there may be differences of opinion as to the stage of disease that imperatively calls for physical measures; but I think it may be laid down as a rule, that when the obstruction involves the necessity of emptying the tube of its accumulations by pressure, the time to employ them has arrived; and to delay their use until from continued morbid action there is material structural change in the tube, must tend very much to lessen their advantage, and to favour the formation of abscess, and its common result, fistula." (*Diseases of the Eye and Operative Ophthalmic Surgery*, page 213.)

After a trial or an examination of the many means used or recommended for the purpose of dilatation, Mr. Walton is convinced that the solid nail-headed style is, according to the state of our knowledge, the most appropriate appliance that we can employ. The points, then, that remain to be considered are, the kinds of style, the method of introducing it, the duration of wear, and the effects.

Mr. Walton's style, as it is called by Messrs. Weiss, the manufacturers of it, is much larger than that generally used, its size corresponding with the duct; that for an adult being the tenth of an inch in diameter, and an inch and a quarter in length. There is a bend or neck to it, in order to sit the better, and to prevent the head, which is round and sufficiently thick to allow the edges to be obtuse, from resting on and irritating the skin. Sometimes, where, for instance, there is a very unhealthy state of the integument, or disease of the bone, it may be advantageous to lengthen the style, so that the extremity should rest on the palatine process of the superior maxillary bone, and altogether prevent the head from touching the surface. There are, too, states in which a globular head is preferable to any other.

It is astonishing how often surgeons fail in introducing the style, and thrust it out of the proper channel, passing it either through the lachrymal bone, or even between the skin of the cheek and the bones of the face. Failure in the ultimate object is frequently due to this. "It requires," writes Mr. Walton (p. 214-15), "some tact to introduce this little instrument readily and neatly. The usual direction to find the spot for insertion, by pulling the lids outwards and making tense the tendo oculi, is not applicable when disease exists. Indeed, with much swelling

and induration there is not any landmark absolutely trustworthy; but so long as the lower and internal angle of the orbit can be felt, it may form an unerring guide. The correct place for the aperture corresponds externally to a spot a little below, and internal to the inferior punctum. With the fore finger of the left hand placed on that part of the edge of the orbit that stands in front of the long canal, to give the idea of the level, and of the distance of the tube from the surface, the knife, with the edge outwards, should be entered below and internal to the punctum, carried a little inwards below the ridge of bone, and then downwards, inclining slightly outwards and backwards to the required extent."

A very narrow strong knife is required, as the obstruction to be overcome is something considerable, and demands a great deal of pressure. Actual bony occlusion has been met with, and required to be bored with a small trocar. Mr. Walton has done this twice in the last six months.

Respecting the period of wearing the style, as a rule, it should be retained till the lachrymal secretions pass readily into the nose, and all trace of inflammation of the duct has passed away, pressure failing to force out any secretion, and when the palpebral conjunction of the lower eyelid is no longer vascular. A period of many months is often requisite before this can be accomplished, and a patient must be encouraged to persevere. The unsightliness of the style may be lessened by gradually reducing the head of the instrument, and having it gilded, or of gold. Or it may be withdrawn in the day and worn only at night.

Many cases are met with in which the destructive power of disease has excited such an influence on the duct, that complete repair is impossible, and the continual wearing of the style is requisite.

In another class, although the style may be discontinued after having effected immense service, the duct cannot be said to have returned to an actual healthy state, yet it is reduced to a condition that does not produce discomfort or annoyance.

The style should be periodically withdrawn and cleaned, as it gets tarnished, or even receives a deposit of sulphuret of silver and corrodes.

Perhaps there is a practical point with reference to the passing of the style that we had better mention. When the aperture in the skin is not greater than will be made by a proper knife, the head of the style will remain external to the wound, but if the knife be large, or should a fistulous aperture exist, the style will pass out of sight, to prevent which a bit of thread should be attached round its neck, and fastened to the nose or forehead with plaster, till the size of the aperture has been reduced by healing.

Hospital Cleanings.

NEWEST VIEWS OF CARDIAC PATHOLOGY: CAUSES OF FIRST AND SECOND SOUNDS OF THE HEART: GENERAL DIAGNOSIS OF HEART DISEASES: TREATMENT BY HYDROCYANIC ACID AND PREPARATIONS OF IRON.

A CASE of heart disease was brought before his clinical class last week by Dr. PARKES, in the out-patients' department at University College Hospital, which suggested many things relative to the improvement which has taken place within a few years in the treatment of this class of affections. Dr. Parkes showed that the majority of these changes in the present case, and in many others, were due to a chain of morbid results originating in one primary condition, namely, *anæmia*, by which the heart becomes, especially in the poor of large cities, very much weakened, and thus rendered liable to yield to the effects of the

pressure of a column of blood forced back on the left cavities by muscular exertion, or on the right by the obstruction produced by various pulmonary disorders.

W. S., aged 14, a very delicate looking lad, was admitted from the out-patients' room last month. He had had for some weeks palpitation of the heart of the most violent kind, with stethoscopic indications which, previous to his admission, led Dr. Parkes to diagnose excessive hypertrophy of the left ventricle, complicated with mitral disease. The heart could be perceived beating as high as the third rib, and was very sensibly and extensively displaced. In place of the apex beating at the fifth rib, it could be perceived as low as the seventh, and an inch to the left of the nipple; while towards the clavicles the heart seemed to fill the top of the chest. Dr. Parkes showed that the case was essentially one of enlargement and hypertrophy of the left ventricle, as there were none of the physical or other signs of pleuritis, pericarditis, or tumour of abdomen, the only other diseases with which it might be confounded. The right side of the heart was comparatively healthy. A systolic thrill was communicable to the hand held over the heart below the nipple, caused, no doubt, by the regurgitation of the blood back, from obstruction and thickening of the mitral orifice.

Dr. Parkes showed that the percussion note was dull over a very large surface, even as high as the cartilage of the third rib, the obscure broad upper edge of the stomach and diaphragm marking it below. The dullness in pericardial effusion, as Dr. Parkes showed by contrast in other patients, assumes a conical shape; but here the region of dullness was square, and included in a very obvious manner the broad base and aortic arch of an immensely enlarged heart above, and the blunted or broadened apex below, on the diaphragm.

Dr. Parkes pointed out four stethoscopic regions, which, for brevity's sake, may be kept in mind in every day practice in heart diseases—the "mitral apex", to the left, below the nipple; the "tricuspid" point, more to the right. The other two stethoscopic regions are towards the top of the chest, and may be called the "aortic" point, and the point for the pulmonary artery; the aortic sounds going towards the *right* clavicle, the pulmonary artery sounds towards the left clavicle. This patient had a loud blowing murmur and "thrill" at the mitral apex.

As to the *character* of the sounds, it may be sufficient to say the first sound of the heart is perhaps muscular; it is believed so, at least, at University College. It is louder at the apex of the heart, and is a sort of blow due to muscular contraction, along with the closing of the mitral and tricuspid valves. The second sound of the heart is due to the "click" or closing of two sets of sigmoid valves, and is best heard at the aortic and tricuspid points, or the top of the chest; and if the two sets of sigmoid valves do not close synchronously, the second sound may be as it were reduplicated, and may be sometimes taken for murmur. These points in practice are simple, and bear to be repeated often, as heart diseases have become very common in general practice. The stenosis in this case was obvious, as also two rough sounds—the familiar indications at the base of the heart, or top of the chest, of aortic distress, with formidable hypertrophy; but, as Dr. Parkes showed, the latter seemed in this boy only secondary to the valvular disease, and due to the double work which the ventricle had to perform, and to a general yielding of the heart from *anæmia*, under which the boy laboured. To remedy this *anæmia* appeared the chief indication of cure; and Dr. Parkes, after a cautious preliminary use of hydrocyanic acid for some days, to lessen the general irritability of the heart and system, places his chief reliance now on preparations of iron—the sheet-anchor of treatment of the subsequent stages of such cases. Dr. Parkes has also found considerable advantage to arise from the external application of a belladonna plaster over the region of the heart. In the present case, the other organs seem to be healthy. There is no embarrassment of the lungs or liver, otherwise