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Original Communications.

IMPROVEMENT IN CATARACT OPERATIONS.

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IN the great variety of treatment of eye disease which came under my observation in England and on the Continent at and after the recent Ophthalmological Congress, nothing was more interesting than the disposition everywhere manifested to adopt more reasonable and conservative methods of extraction of cataract in place of the vagaries which have found more or less favor during the last ten years. During this period, two methods especially have emanated from Berlin—extraction by means of scoops introduced within the eye, and the “new method” of von Graefe, termed “linear extraction.” Both of these were equally heralded as wonderful improvements upon previous operative procedures, and, according to the statistics furnished by their advocates, gave a larger percentage of success. Unfortunately, the same favorable results were not obtained in other hands, and the first of the methods, by outscoping, although much lauded for a time, has already met its fate and may be dismissed from notice. The second is still more or less employed, though I found it frequently so “modified” that its claims to legitimacy had become doubtful. The objections to this operation were many, and the six years since its conception have been too short a time to warrant the extravagant claims put forward in its behalf, since the frequency of secondary ill consequences, which might be predicted as almost certain to follow it, would, of course, be left out of sight in announcing the immediate results.

Among these objections, one of the fore-

most was the placing the incision so near the ciliary region, where all scientific oculists are agreed that wounds are dangerous as being liable to result, at some subsequent period, in sympathetic inflammation of the other eye. The chances of separation of the retina, the frequent loss of vitreous during the operation, the necessity for the removal of a part of the iris, and the long-continued manipulation of the eye required for the extrusion of the whole of the lens-fragments through the small wound, were other objectionable features of this method, which could only be tolerated if the proven results justified the clumsy and unscientific means. It seems now to be probable that the substitution of the very narrow-bladed knife of von Graefe for the broad, triangular knife will be accepted as the only permanent and true advance in ophthalmic surgery contributed by the “linear method,” the disposition to seek out a more excellent way being almost universal.

The method of M.M. Lebrun and Warlomont, of Brussels, of extraction by a “median section” through the upper portion of the cornea, practised, also, by M. Liebreich through a lower section, seems to offer the happy *tutissimus ibis*, between the large peripheral section of the cornea as originally practised, and the linear extraction. It is certainly more in accordance with the anatomical relations of the parts concerned in the operation, and thus better adapted to ensure the largest ratio of success. These reasonable expectations of good results seem to be fully justified, and I had an opportunity, especially at the clinique of M. Liebreich, to examine a large number of eyes recovered from this operation, where the optical conditions were excellent.

In doing this operation by the upward section, the narrow knife is entered through the cornea, at its very margin, at the point of termination of its horizontal axis, and is passed on in the direction of the diameter of the cornea to make the counter puncture

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at the opposite point. The incision is then completed, not parallel to the iris as in the peripheral section, but in such a direction that the apex of the slightly curved flap is opposite the upper border of the moderately dilated pupil. From its situation, and its adaptation to the curved surfaces of the lens, this section is most favorable for the easy exit of the cataract, which does not crowd forward and contuse the iris as in Daniel's method, but escapes readily through the pupil and through the wound. No mutilation of the iris is necessary, and the loss of any portion of vitreous humor is not likely to occur, whilst the form of the cut is best adapted for immediate healing.

There is little tendency to prolapse of the iris after this operation, and one of the great dangers of flap extraction is thus avoided, without the necessity for recourse to iridectomy. The scar of the incision soon becomes nearly imperceptible, and being beyond the field of the pupil at its ordinary dilatation it does not impede vision.

The importance of this innovation, already extensively adopted as a substitute for linear extraction, is my sufficient apology for bringing it thus soon to the notice of the profession in America, although I have as yet performed it only six times since my return home. But such a section of the cornea is not wholly a novelty with me. Having always been partial to extraction by some method not requiring iridectomy, I have, sometimes, in eyes where the cornea was large, made the incision terminate at some distance from the corneal border, and the excellent results in these cases would long since have induced me to adopt the "median section" as the best, had I not deferred to the opinions of various authorities who have insisted that wounds at the periphery of the cornea were most favorably situated for immediate union. My own experience, therefore, is not wholly limited to the success of these recent operations, but has been such as to prepare and induce me to accept the facts in favor of the median incision which I lately had opportunity to observe on a large scale in Europe, and I can confidently urge a trial of this operation as offering large chances of favorable results.

THE University of Munich, on its four hundredth anniversary, conferred the honorary diploma of Doctor in Medicine on Mr. Simon, F.R.S., D.C.L.

A CASE INVOLVING SERIOUS GUN-SHOT WOUNDS.

By H. W. SAWTELLE, M.D., Assistant Surgeon, U.S.A.,
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CORPORAL M. D. T., Co. I, 15th Mass. Vols., aged 32 years, a strong, healthy man, was wounded at the battle of Spotsylvania, Va., May 12th, 1864, by a musket ball entering the left thigh just above the external condyle, and, passing upwards and inwards through the muscles of the outer and anterior aspect of the thigh, severely lacerating the soft parts, emerged through the rectus muscle six inches above the knee; again entering at the left seventh rib and lodging. Another ball entered the upper third of left thigh posteriorly, and passing upwards and forwards, injuring the sciatic nerve, lodged and is still encysted near the sciatic foramen; it evidently impinges on the nerve, and accounts for the severe paroxysms of sciatica, which greatly disturb sleep. A third musket ball penetrated the abdomen and intestines in the left inguinal region and lodged. The patient was admitted to the Lincoln Hospital at Washington, D. C., May 26th, 1864, whence he was discharged from the service January 7th, 1865, and pensioned.

The injured thigh is seriously disabled and inefficient. A deep, broad and irregular cicatrix adherent to the femoral periosteum restricts the motions of the thigh and leg, which are affected with acute neuralgia, formication, and impaired nervi-motor function, with depressed temperature. The saphena veins of the thigh are affected throughout with varices. The missile was removed from the left side, and the patient suffers no inconvenience from that wound. The wound of the abdomen resulted in a faecal fistula, which healed about eight months subsequent to the injury, the contents of the bowels during this period being voided partly through this traumatic opening. The ball was discharged by the rectum, with the faeces, four weeks subsequent to the reception of the wound. The fistula closed with a very thin and extremely sensitive cicatrix, the size of a quarter of a dollar, involving fascia, integument, peritoneum and intestines, which very much resembles a drum-head. The movements of gas and faeces in the intestines can be distinctly felt through this membranous covering, and every jar or strain of the abdominal muscles gives rise to an acute pain at this point, and oftentimes nausea. In order, therefore, to lessen the tension of the muscles during de-