given justly on such grounds; but who can deny that discs so suffering may not ultimately return to a condition of health, and to a due performance of their proper functions?

In a future paper on the subject, I hope to adduce evidence regarding the condition of the optic disc after railway concussion.

ART. XX.—On Essential Phthisis Bulbi. By H. Rosborough Swanzy, M.B., L.R.C.S.I.; Assistant at Prof. von Graefe's Ophthalmic Hospital, Berlin.

The name Essential Phthisis Bulbi has been applied by Prof. v. Graefe (Archiv. f. Ophthalm., xii. 2, page 256) to a peculiar affection of the eye, in which the principal feature is a great and sudden reduction in the tension of the eyeball, followed by a more gradual return to the normal intra-ocular pressure.

The form of phthisis bulbi with which we usually meet is the result of an inflammation of the internal membranes—for the most part a purulent irido-choroiditis. It appeared that a somewhat similar condition as regards reduction in size and change of shape, but above all, as regards diminution of tension, might occur without any pathological change in the interior of the eye, and hence the name essential phthisis bulbi.

Of this affection there have been, until now, two cases published, the first by von Graefe (loc. cit.), the second by Nagel (A. f. O. xiii. 2, page 407). The patient in von Graefe's case was a peasant who had received an injury from a goat's horn, the result of which was a small conjunctival cicatrix and the occlusion of the inferior lachrymal canal. Nagel's case was that of a patient upon whom he had performed the simple operation for strabismus. The following is a case which I have had the opportunity of observing in Prof. v. Graefe's clinique:—

Frau Tschenisch, aged thirty-seven, blind in consequence of a cataracta matura on each eye. She had not been previously short-sighted. There was no sugar in the urine. The perception of light and the projection were good, and the phosphens precise.

The extraction of both cataracts was performed on the 24th May, 1869, by Prof. v. Graefe. In consequence of the youth of the patient, and the absence of any other discoverable cause for cataracts, von Graefe diagnosed a diseased vitreous humor, and
prognosed the probable prolapse with loss of a portion of it during the operation. At the delivery of the lens a considerable loss of vitreous took place in both eyes. In consequence of this the eyes became very collapsed; however, under a tight pressure bandage they regained their normal consistence within forty-eight hours. The further process of healing was quite normal, the only thing to be remarked being that the wound in the left eye did not simply unite, but a half transparent substance became formed between the edges of the wound, similar to what is seen in cystoid cicatrices after iridectomy for glaucoma. In this case, however, there was no ecstacy of the cicatrix. The space between the edges of the wound was about a quarter of an inch wide. This is a form of union of the wound which I have repeatedly seen after cataract operations, without ever any evil results.

After the operation the patient was kept for three weeks in a darkened room, inasmuch as eyes after cataract operations, attended with loss of the vitreous, are liable for a long time afterwards, on exposure to light, to an irritation which may have serious consequences. I then moved her into a lighted room, where, next day, both eyes became irritated, ciliary neuralgia, a flowing of tears, and a slight pericorneal injection. I ordered her at once to go to bed in a dark room, and gave her a subcutaneous injection of morphium. A few hours afterwards the symptoms had vanished. Both eyes had been equally irritated. Two weeks afterwards I allowed the patient to commence once more to accustom herself to the light; and this was done in the most careful way, by allowing her to spend a short time each day in a half-lighted room.

Everything went now well until the day six weeks after the operation (5th July). At the morning visit she complained of a sensation of pressure in the left eye, which she had first observed an hour before on getting out of bed, and said that she saw somewhat more indistinctly with this eye. In the anterior chamber there was a small hemorrhage. A traumatic separation of the retina struck me as probable; and on palpation of the bulb I found its tension most remarkably reduced (−T₃). The patient denied a trauma; and, as she was a very sensible woman, I could not take it for granted—unless, indeed, it might have occurred during her sleep. Besides the hemorrhage in the anterior chamber and a slight pericorneal injection, there was nothing abnormal to be seen on the exterior of the eye. The wound was not burst, and there was no wrinkling of the cornea. There was no flowing of tears nor any