

dence against its contagious nature. If the disease is contagious, it is logical to use an antiseptic (I have been informed that Dr. Knapp himself uses an antiseptic in the treatment of trachoma). It seems to me that in this way we may prevent recurrences that otherwise would take place.

I have seen a good deal of the treatment with blue stone, and can remember only a few cases where a cure was effected. Relapses are the rule, and the treatment of the relapse by a few applications of blue stone does not suffice to cure it. It is exceptional to find a radical cure follow the use of blue stone. Experiments with a pure culture of the staphylococcus aureus made by myself in Knapp's laboratory, demonstrated that blue stone is not a germicide. It is therefore a simple irritant, and increases the vascularity of the conjunctiva. Even if it can be shown that "dozens of cases" are cured by expression alone without an antiseptic or after-treatment, that is no proof, and is no argument against the use of a germicide. If only a few relapses occur, a germicide should be employed to endeavor to prevent all recurrences.

# CLINICAL HISTORY OF A CASE OF SUCCESSFUL EXTRACTION OF A PIECE OF STEEL FROM AN IRIS AND LENS BY AN IRIDECTOMY, WITH SUBSEQUENT ABSORPTION OF THE LENS AND RECOVERY OF NORMAL VISION.

Read in the Section of Ophthalmology, at the Forty-third Annual Meeting of the American Medical Association, held at Detroit, Mich., June, 1892.

BY CHARLES A. OLIVER, M.D.,

ATTENDING SURGEON TO WILLS' EYE HOSPITAL; OPHTHALMIC SURGEON TO THE PRESBYTERIAN HOSPITAL, ETC., PHILADELPHIA.

On the second day of March, 1891, H. M., æt. 29 years, a blacksmith, came to Wills' Eye Hospital, complaining that his right eye had become inflamed from the supposed lodgment of some foreign substance in the cornea one day previously. Attempts at extraction had made the eye very painful, which was relieved by the use of a weak infusion of tea leaves. Two years previously, the same eye had been struck by a piece of steel measuring roughly about 4 millimetres square, the foreign body not penetrating the eye, though leaving the organ irritated for several days' time. Vision was in no way subsequently disturbed, and the organ had never become troublesome up to the time of the second accident.

At the time of the first examination, a small mass of foreign substance was found imbedded in the upper inner quadrant of the cornea, about 3 millimetres above the horizontal meridian, and in an almost identical position in the underlying iris, there was a round black bead about the size of the head of a small pin, from the upper part of which could be seen, by strong oblique illumination, a line of metallic-like lustre. A faint deposit of precipitates on the membrane of Descemet, with slight pericorneal injection, existed, though there was no evidence of any ciliary tenderness. Vision with this eye had fallen to slightly less than one-eighth (5-40?), and the accommodative range was limited to the reading of type 0.75 D. from 13 to 30 centimetres. Through the undilated pupil, the eyeground could be fairly seen, it appearing healthy. No abnormality could be seen in the left eye, its vision being one and one-half (5-7½), and the accommodative range extending from 13 to 36 centimetres for 0.50 D. type.

The foreign substance was removed from the cornea, and upon consultation with Dr. Wm. F. Norris, an immediate iridectomy, including the piece of supposed metal, was advised; the latter procedure, however, the patient refused to accept. Upon this decision, a soothing collyrium of boric acid and a Liebreich bandage were ordered, with a request that he should report in the morning.

Upon the following day the patient returned to the hospital, stating to the resident surgeon, Dr. Zimmerman, that an exacerbation of pain in the eye during the night, had decided his willingness to return for operation. He was immediately put to bed, bowels were purged, eyes bathed freely, and he was kept quiet until the next clinic day (March 4), when upon reëxamination, the anterior chamber was found somewhat shallow, and the lens was slightly

swollen and becoming opaque in the position of the situation of the foreign body. At this time, the iris tissue in the vicinity of the traumatism was noted as muddy in appearance, with the formation of a synechia at the upper pupillary edge, the ciliary region being slightly tender to the touch. In spite of these inflammatory conditions, a narrow incision with an angular keratome was made at a position in the cornea just inside of the limbus, corresponding with that of the foreign body, and an iris forceps passed in and the object (a flat piece of steel of about 1 millimetre in diameter), with the surrounding bruised and inflamed iris tissue, grasped, brought out and excised—making a clean iridectomy. The lens area exposed to view showed the point of the original wounding of the capsule, with the situation of the greatest amount of swelling and opacity. Atropine and a light pressure bandage were applied, and the internal administration of small tri-daily doses of calomel, with rest in bed, was enjoined. In two days' time, the wound in the cornea had healed, the inflammatory symptoms had greatly subsided, and the lens matter had begun to rapidly absorb, until on the 18th of the month, there was but one plug of lens material to be seen, this being situated in the lower portion of the anterior chamber. Eleven days later, the remaining lens mass had disappeared, the eye was quiet, and vision could be brought to almost normal by the use of a + S. 11 D. lens.

At the present time, about fifteen months after the accident, there is a perfectly quiet eye, with a narrow coloboma up and in; an eye which, in spite of a few fine linear folds of capsule at the lower inner border of the pupil, which can be barely recognized during moderate pupillary dilatation, and a faint concentric ring of lens and capsular debris, which can only be seen at the periphery of the coloboma, possesses normal acuity of both central and excentric vision, the patient possessing an acuity of 5-5 with + S. 11. D.  $\odot$  + C. 0.50 D. ax. 100°, and reading many words of type 0.25. D. fluently at 8 inches distance with an additional convex lens of 4 diopeters strength.

The case is interesting upon account of the immediate curative effects of an iridectomy which removed an offending substance and its bed of bruised and inflamed iris tissue, thus allowing a free, rapid swelling and disintegration of lens matter to uninterruptedly take place during a watchful and careful after-treatment; this immediate happy result being supplemented by a subsequent restoration of vision to full acuity, with but little necessary correction of astigmatism, in a comfortable and unirritated organ.

THE BICYCLE IN MEDICINE.—Dr. W. H. Burr, of Wilmington, in *Merck's Bulletin*, observes concerning the treatment of tuberculosis that it is irrational to fill the patient with drugs, if no attempt is made to change the environment in which the disease was contracted. His system should be "flooded with oxygen" as a prime requisite to a reformed metabolism—while at the same time the excretory organs are not overlooked. "The bicycle," says Dr. Brown, "in my opinion is one of the most advantageous means of administering oxygen. The bicycle will digest more fat meat and starchy vegetables than any other means of exercise known." The late Dr. Frank H. Hamilton was fond of saying that "the best thing for the insides of a man is the outside of a horse," but he was of that generation, now nearly passed away, that was unacquainted with the wheel in its newer forms and those that are best adapted to the open air occupation of invalids. Thousands of persons can have bicycles to whom the living steed is out of the question. And the proprietorship of a horse is not an unalloyed privilege, since too much exercise may at times be unavoidable through considerations affecting the servant-animal, but the bicycle can be stopped and made to rest at the will of its owner. Dr. Burr concludes his observations by saying: "The latest theory in the treatment of tuberculosis is rest. I prefer to say: Action with rest—as the unpleasant necessary concomitant—but which should be gradually, steadily and progressively abridged." Mr. Gladstone is an ardent admirer of this most rational means of physical betterment. He is reported to have said recently, in an interview: "I can only emphasize the fact that I consider that physically, morally and socially, the benefits that cycling confers on the men of the present day are almost unbounded."

COLORS MORPHINE.—It has been proposed by a German physician that morphine be always stained a bright red with aniline, in order to diminish as far as possible mistakes in compounding.