

Webster (D.)

WOUND OF AN EYE BY A MISSILE FROM A CROSS-GUN; ENUCLEATION FOR SYMPATHETIC IRRITATION; REMARKABLE LESION IN THE IRIS; CYST-LIKE COLLECTION OF FLUID.

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(With one Wood-cut.)

Mrs. G. brought her son, twelve years of age, to Dr. C. R. Agnew for advice on April 30, 1883. She gave the following history: On the 6th of October, 1880, he and a schoolmate were shooting from a cross-gun together. Having broken their arrows they pulled ditch weeds,—“golden rod,”—which were dry, and used them instead. The boy's playmate accidentally shot him in the eye with one of these missiles. The stick entered the cornea of the left eye. The sight was, as she believes, destroyed at once by the injury. His nervous system was so shocked that it was some weeks before he was able to be taken to New York for treatment. About the middle of November, 1880, he was taken to the New York Eye and Ear Infirmary, where he was placed under ether, and an exploratory operation performed, as the mother understood, but none of the stick was found in the eye. Her family physician, who was present at the operation, informed her that the original wound was reopened, and the eye explored through it; also that “they thought the blow had caused a separation of the retina, and a dislocation of the lens.” The inflammatory reaction and pain following the operation passed off in about a month. For about two years thereafter, the blind eye was not troublesome, and was “perfect” in its external appearance. In October, 1882, his mother observed, while washing him, a small white spot in his pupil, and on watching this spot, she found that it gradually increased until it filled the whole pupil. No further change occurred until March, 1883, when the eye became red and painful without apparent cause, and the right eye began to sympathize, being painful on use, and sensitive to light.

Although the blind eye is now free from redness, the right eye

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still suffers from sympathetic irritation. There is no special tenderness on pressure of either eye. The lens of the injured eye is opaque. The iris is adherent to the lens capsule at its pupillary border, and so arched forward as to make the anterior chamber very shallow, except over the pupil. Tension slightly increased. No perception of light. Right, Vision, $\frac{2}{8}$; Hm., $\frac{1}{4}$.

On May 3d, Dr. Agnew enucleated the eyeball, and, after soaking in Müller's fluid a sufficient length of time, it was examined by Dr. T. Mitchell Prudden, who kindly gave us the following report:

"June 19, '83.—The cornea is normal except at the periphery, where, in the vicinity of the blood-vessels, there is a slight infiltration with small spheroidal cells. The anterior chamber, which is very shallow by reason of the arching forward of the iris, contains a small quantity of homogeneous fluid. The iris is dense, its blood-vessels compressed, and pigmented cells are unevenly distributed through its substance. The uveal layer on either side of the pupil is separated from the rest of the iris by a *cyst-like collection of fluid* (1), which



extends from the border of the pupil back nearly to the ciliary body. The pupil is crossed by a thin, veil-like, organized membrane, consisting of stellate, fusiform, and spheroidal cells, with a very small amount of finely fibrillated intercellular substance. The separated uveal layer of the iris is closely attached, posteriorly, to the middle third of the lens, but in the peripheral segment is separated from it by fluid (2).

"Just within the anterior-lens capsule lies a thin membrane of connective tissue (3). The lens substance is more or less disintegrated throughout, being in many parts broken into irregular fibrils, in others thickly studded with spheroidal

cavities, and in others presenting large irregular cavities filled with globular and irregular-shaped masses of disintegrated lens substance.

“The fibres of the suspensory ligament and zonula are stretched and separated by fluid which contains pigmented and variously shaped cells.

“A narrow, dense, cyclitic membrane (4) passes across the eye close behind the lens.

“The ciliary body is flattened and its pigmented layer irregular by reason of the peeling off of the cells.

“The retina is completely detached, is œdematous in places, and has undergone, throughout, the proliferative and degenerative changes common in incipient atrophy of the bulb. The choroid is much flattened and partially atrophied.”

It is believed that the separation of the uveal layer from the rest of the iris by a cyst-like collection of fluid, as shown in the drawing, is a rare lesion. Dr. Prudden considered it rare and interesting. I have looked through Dr. A. Alt's work and do not find it mentioned there. I have also ventured to interrogate Dr. Knapp, who replies that he thinks the lesion is quite rare.

In reference to the history of the case it may be proper to add that all symptoms of sympathetic irritation passed rapidly away after enucleation of the offending eye, and that the child wears an artificial eye with satisfaction.

