an appearance very closely resembling embolism of the central artery. There was an opaque area of retina crescentic in shape extending from the disc to the macula both above and below. It was not so white as is sometimes seen, but presented more of a feathery appearance. The optic disc was normal in appearance, and no traces of an obstructed vessel could be seen. Neither the arteries nor the veins were altered in appearance. The macula presented a cherry red appearance, but no hemorrhages of the retina were visible. The next day vision was 0.6, on the 24th 0.8, and on the 26th, four days after the attack, central vision was perfect. The field of vision gradually widened on both sides from below upward, and when last examined a few days ago, there was only a blank in the field directly upward. The oedema of the retina faded out in about a week, and the cherry red appearance in the macula in two weeks. Was this an embolism? probably not. Was it a spontaneous thrombosis according to Priestly Smith? Was it a thrombosis as is described by Michel of the third degree—a simple stasis? In this case the patient had been indulging in stimulants and tobacco freely for some months previous, and particularly so on the night before this attack occurred. Is there not a direct relationship between the engorgement between the cerebral and the retinal vessels and the oedema of the retina?

REPORT OF A CASE OF ZONULAR ATROPHY OF THE CHOROID.

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

BY R. TILLEY, M.D.,
OF CHICAGO, ILL.

J. N. O., age 66 years. One of a family of two children. Father and mother lived to the age respectively of 63 and 81. No recognized defect in the eyes of father or mother. Father afflicted with a contraction of the subcutaneous fascia of palm of the hand, resulting in the condition known as Dupuytren's fingers. Patient's brother, now dead, was afflicted in a similar way in the right hand, but only one finger was affected. Patient himself, who was for a great part of his life an English sailor, has marked, severe contraction of several fingers, involving both hands, clearly referable to similar condition of the subcutaneous fascia. He has now and has had for ten years at least, a remarkable intermittent pulse; remarkable in that there is a decided regularity to the irregularity. I took a tracing of it, but finding that it really failed to give any accurate conception of it, I have not thought proper to produce it. Patient has a son-in-law, a physician, who writes me that he observed this irregularity ten years ago. In order to get as definite a view as possible of the condition of the heart I referred him to Dr. R. H. Babcock, who reported as follows:

CHICAGO, May 3, 1892.

Dear Doctor:—Please pardon the tardiness of my report concerning Mr. Owen, whom I examined last Friday. The irregularity of his pulse struck me at first as being an example of the pulsus trigeminus, but on more extended palpation, it was found to intermit at regular intervals. Sometimes there was an apparent intermission due to a pulse wave that was scarcely to be felt. I then auscultated the heart while feeling the pulse, radial, and it seemed to me that at times the heart contracted without forcing a pulse wave all the way to the wrist, but as to that I am not quite positive.

There is no evidence particularly of extended arteriosclerosis, although his age would render that condition probable in a measure at least. There is marked evidence of heart degeneration. He says he sometimes has pain and stiffness in the joint of the right big toe, but without enlargement. He suffers also with great flatulent indigestion, which has been the case about ten years. There is such an absence of symptoms referable to the heart, that it seems to me his intermittency of pulse must be due largely to reflex causes. Very sincerely yours,

ROBERT H. BABCOCK, M.D.

He suffered some ten years ago from an excruciating pain—"a boring pain" which, as far as I can make out was referred either to the heart or stomach. The doctor in attendance, Dr. Heydock, now dead, confessed that he could not satisfy himself as to the cause of the pain. He suffers at times now from some pain in the lower part of the back, extending downwards in the region of the sciatic nerves.

He has had two children and only two; one only is living. There is no evidence of lues that I can elicit. There is no evidence of renal affection.

The external appearance of both eyes is normal, with the exception of a certain amount of chronic conjunctivitis. No adhesion of the irides, but the pupils do not dilate under mydriatics *ad maximum*.

In both eyes there is incipient capsular cataract, both most pronounced in the infero-internal quadrants—the best eye, the left, giving the most evidence of cataract.

The curious feature which has induced me to report the case is the peculiar form which the degeneration of the choroid of the right eye has assumed. I have called it zonular atrophy of the choroid. The peculiar band of atrophy does not occupy exactly the position which it should occupy relative to the poles of the eyes to fully justify the appellation. It forms, however, a distinct band, the relative position of which will be best understood by the accompanying diagram. You will see that the band is represented a

good deal wider at the bottom than at the top, and the part near the optic disc possesses quite an amount of choroidal tissue which clearly supplies the blood to the island of relatively normal tissue. In the lower part the sclera is plainly visible, traversed only by some retinal vessels. The edges of the pathological tissue are clear cut, not black, in places brownish, and the area embraces the macula.

After considerable patient observation I can detect no visible difference between the choroidal tissue forming the island and the general choroidal tissue. When the communicating bridges disappear the whole island of apparently normal tissue will disappear, and leave the sclera exposed throughout the whole area similar to the wider area below.

The sensations which he complains of are floating objects, a dark brown area in the centre and upper part of the field of vision—both of them sketched out for me on a piece of paper—and a continual whirl of different colors before the eyes, most manifest in the affected eye and more troublesome in a bright light. The colors he compares to the colors of the flower, the sweet william. Whether the whirling sensation complained of also in the relatively healthy eye is referable or not to pathological changes in the right eye, I cannot determine. I suppose that if such a sensation is due to the disturbed circulation of the choroid, the sensation would be shared by both eyes. I will add, moreover, that a very small patch of pigment, quite black, has been observed in the lower part of the fundus of left eye, the region corresponding to the region of greatest atrophic development in the eye under consideration. It will be interesting to observe if that peculiar subjective sensation will disappear with the completion of the atrophy of the choroidal bands now uniting the island to the remaining choroidal tissue.

Whether that spot of pigment in the lower part of fundus of left eye is the commencement of a similar process in that eye, it is impossible to divine. I have had the case under observation now for about five months, and I can observe but little change.

NAPHTHALINE IN THE TREATMENT OF WHOOPING COUGH.—The treatment of whooping cough by means of naphthaline fumigation is recommended by Chavernac (in *Bull. Gen. de Ther.*). About half an ounce of the drug is, on one or more nights, made to burn in a suitable vessel in the sick room, the windows and doors being tightly closed. The cough at once moderates, the dyspnoea and other symptoms are favorably influenced, and the attack is soon brought to an end. Complications may contra-indicate the employment of the remedy. Those individuals suffering with pulmonary tuberculosis cannot bear the treatment.