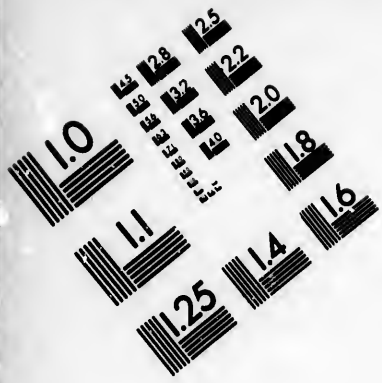

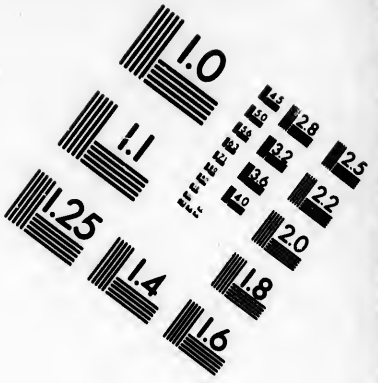

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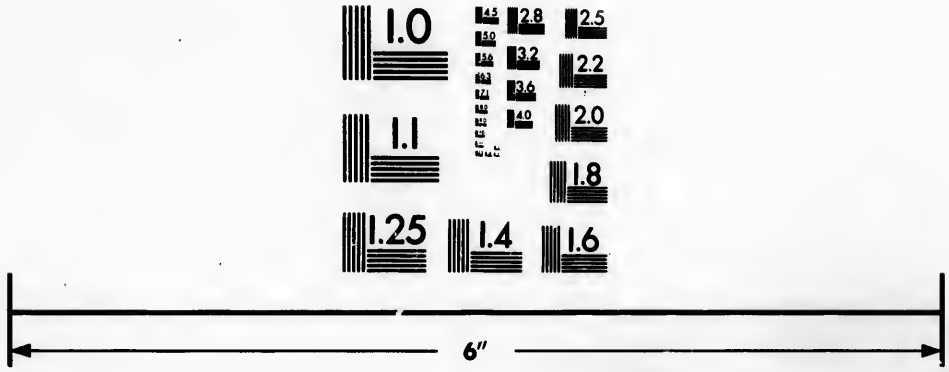

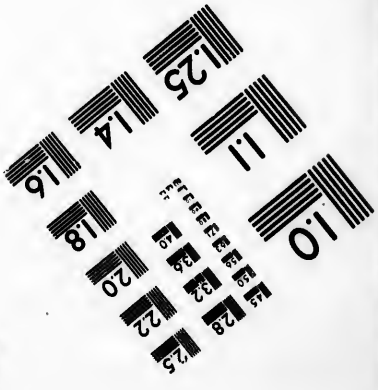

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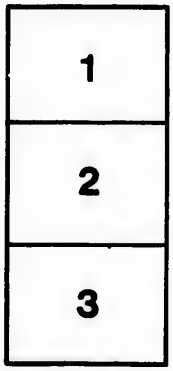

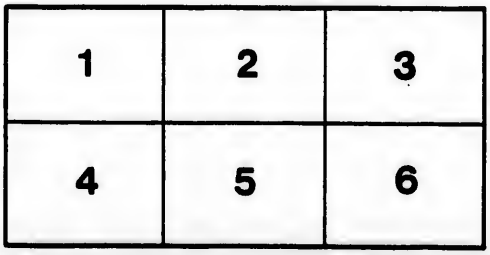

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An Byers. W. G. M.

Reprint from the AMERICAN JOURNAL OF OPHTHALMOLOGY January, 1900

AN ATYPICAL CASE OF RETINITIS PIGMENTOSA.

By W. GORDON M. BYERS, M.D.,

MONTREAL, CANADA,

Assistant Ophthalmologist, Royal Victoria Hospital, Montreal, Canada.

THE patient, a married woman, 37 years of age, was referred to the Eye Clinic from Dr. Gardner's gynecological wards where she had been under treatment for uterine displacement and ovarian disease. She complained that she was "moon-eyed," *i. e.*, that her vision was only good on those nights when the moon shown brightly. This condition had existed from childhood, her parents having discovered in her third year that she saw relatively poorly as evening came on. She seemed especially prone to "catch things" as a child, and had had small-pox and all the infectious diseases of early life. Married at the age of 20 years, she was now the mother of three healthy, grown-up children; there was no history of miscarriages or of any other specific manifestation. The patient stated that after the attack of small-pox and following the birth of each child she had noticed an improvement in the condition of her eyes. Neither her parents nor any other member of her family had ever been affected in like manner, and the former were not connected by any ties of consanguinity.

Examination.—The eyes as regarded their external appearance and refractive media, were normal; but an examination of the eye-grounds showed the following interesting changes:

In the lower and inner quadrant of the right eye was a small area of roughly quadrilateral shape, the edges of which were thickly fringed with dense accumulations of pigment of the characteristic retinal type. The central portions, although

covered here and there by trails of pigmentation, were generally white from exposure of the sclerotic. Two choroidal vessels, with broad white wall, traversed the base of the spot and represented all that was left of the atrophied choroid. Two retinal veins and one retinal artery crossed over the area and were covered here and there, but especially at the edges, by the pigment accumulations. The rest of the fundus had a finely stippled appearance, but in addition to this there were scattered promiscuously over the whole of

RIGHT EYE.

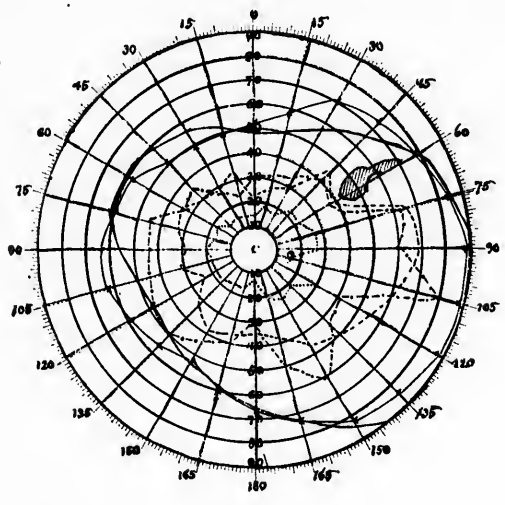

FIG. 1.

White x——x——x Blue — - — - — - Red - - - - - - - Green .....
Normal White Field ————

the eye-ground very numerous small, rounded, or slightly oval dots, which were sharply defined, of a grayish-white color, and dull appearance.

In the left eye these latter and the stippling of the fundus were the only ophthalmoscopic changes present, the most careful examination under complete mydriasis having failed to reveal any trace of the pigmentary disturbances usually present in cases of retinal degeneration.

The optic disc of each side, as well as the retinal vessels, could not be said to have deviated from the normal. In the right eye, extending forward into the vitreous, from the center of the left optic disc, was a rounded, wavy, highly refracting string of tissue, which, though not characteristic, suggested imperfect retrogression in connection with the hyaloid artery.

LEFT EYE.

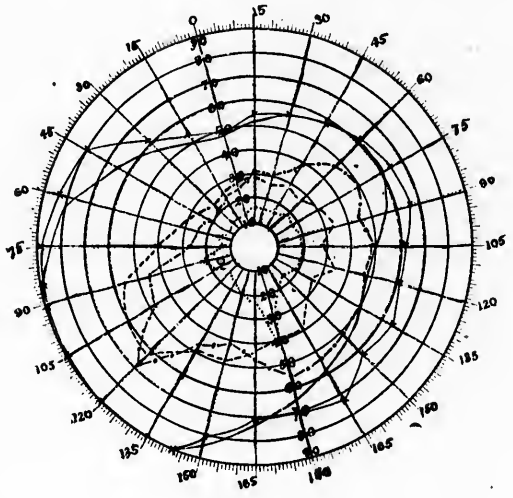

FIG. 2.

White x——x——x Blue —·—·—·— Red ------- Green .....
Normal White Field ————

The field for white of the left eye was perfectly, that of the right eye practically, normal (See Figures 1 and 2). While this was the case with good illumination in a darkened room (in which, however, the tracings of the normal eye were full), the field for white on each side showed very marked constriction falling at every point within the 30° zone. The fields for blue, red and green were definitely, if irregularly, constricted, that of the last-mentioned color in a somewhat greater degree than the other two. Tracings for yellow were also taken and showed contraction, but they

have been omitted because of the complex character of the charts produced by their insertion.

Interesting is the absolute negative scotoma in the right field corresponding to the area of change in the lower and inner quadrant of the eye.

The vision of each eye under homatropine was $^{6}/_{18}$, not improved; Tn. in both eyes.

I was able to examine two of the patient's children, a girl, 13 years of age, and a boy, 12 years of age. The other child, a son, was away in the States, but had never shown similar symptoms. In the two I examined under complete mydriasis, the fundi were quite normal, vision was $^{6}/_{6}$ — in all four eyes, and the fields of the girl (white and colors) and the boy (green only tried), showed no contraction.

Remarks.—The importance of carefully reporting unusu al cases of this kind has been accentuated by Dr. George M. Gould (*British Medical Journal*, Vol. II, 1887, p. 1061), and his article has been an incentive to the publication of this report.

The night-blindness, the impaired functioning of the retina under weak stimulation, and the character of the fields for colors, stamp this as an undoubted, if atypical, case of pigment degeneration of the retina, or *Retinitis Pigmentosa;* the absence of any specific history is also confirmatory. Neglecting the localized pigmentary changes the case presents an example of the *Retinitis Punctata Albescens* of Nettleship and Gayet, and would from this point of view alone be of interest. But the occurrence of the localized area of characteristic pigmentary change serves to accentuate still further the relationship of this disease with the ordinary form of *Retinitis Pigmentosa* (Fuchs), and the presence of the sclerosed choroidal vessels the dependence of the changes in the retina upon vascular disturbance in the choroid (Wagenmann).

What phases of the disease are represented by the changes present it is impossible to say. It will be interesting to examine if possible the case at some later date, and note if the pigmentary changes supervene in the parts of the fundus now occupied by the dotted bodies. In this case they would have to be regarded as an unusual pathological condition occurring in the initial stage of the ordinary disease.