medical authorities; but I know of no attempt to figure the appearance in the field of vision. Subjoined I give figures showing my own visual modification in three stages—initial, maximum and final—with the location and local progress of the symptom, taken during an attack last summer, after freedom from the headaches for years. It was brought on probably by the glittering effect of the sun on the water in sea-bathing, an inducing cause sometimes noticed by other observers, and rather frequent in the period of boyhood and youth in my own case.

The area covered by the peculiar net-work shown in the figures is bright light-gray and the configuration itself is of the appearance of water-bubbles or divisions. The lines are all straight and at right-angles to one another. The progress of the stigmate, if that term be allowed, is interesting from the point of view of theories of the localization of the trouble in the brain. The initial appearance covered the left half of the hand held eighteen inches before the face; it gradually spread leftward and upward (never downward or rightward) until it covered the whole hand when the gaze was fixed a little to the right of the hand and on the line of its lower edge. It then travelled off the hand by contracting upward and leftward (as shown in Fig. 3). This would indicate that the disturbance began in the right half of the visual area (occipital lobe) of the right hemisphere, or in the corresponding subcortical centers or tracts, spread over the entire upper half of that area (left upper quadrant of the field of visions), then died away progressively in the same order, this inference depending, of course, on the hypothesis of a projection of the elements of the visual area upon the retina.

It is interesting from the psychological point of view to note that a strong and persistent effort to call up the appearance, as for drawing a figure of it or describing it, produces in my case positive sensations of nausea.

J. Mark Baldwin.

Oxford, January 20, 1900.

The Development of Photographic Plates in the Light.

It may be of interest to your readers to know that if photographic plates in a camera are greatly over-exposed they may be developed in the light. A plate which should for ordinary work have an exposure of a second and a half for street or outdoor photography may be exposed for two hours. When developed with a weak hydrokinone by the light of a lamp, it gives a beautiful positive. The lamp is preferable because one can manage the degree of illumination. If the plate is held too near the lamp it will dissolve a picture already appearing. If held too far away the plate begins to fog. By moving toward or from the lamp the proper illumination may be soon secured. It is remarkable that a street scene taken in this way shows not a moving thing on the streets. Street cars passing every two minutes, wagons, horses, pedestrians, all have apparently vanished without leaving a trace upon the plate. But the fixed objects are shown perfectly, with their proper shadows and high lights.

In this way lantern slides and transparencies may be made directly without re-photographing from a negative.

Francis E. Nipher.

The Topographic Survey of Ohio.

The Ohio Legislature has just passed its appropriation bill for the year 1901. It contains an item of $25,000 for the inauguration of a topographic survey of the State, in co-operation with the United States Geological Survey. This insures the systematic beginning of the field work next year, and the friends of the measure are confident that it will be continued until the entire State is covered.

The initiative in the movement for securing co-operation was taken by the Ohio State Academy of Sciences at its annual meeting in December, 1896, since which time a committee of this body has been active in promoting the measure. At the legislative session of 1898 a bill passed the Senate and was in good favor in the House, largely through the earnest support given it by State Senator James R. Garfield. But the outbreak of the Spanish war necessitated a large appropriation for possible military expenditures, and so it was cut off. All parties gave the measure increased support in the campaign just closed. The scientific societies of the State, including the civil engineers and the

mining engineers, the college men, the wheelmen, the chambers of commerce and the principal newspapers all co-operated in securing the gratifying result already mentioned.

Ohio offers many interesting problems in topographic history, reaching as it does from the deeply-trenched, unglaciated southeastern portion, with its great systems of reversed drainage, to the flat lake plain of the north, with its beaches, moraines and buried channels. In due time this area will be added to that of the States to the eastward, where similar systems of co-operative survey are giving, or have already given, their topographic structure to the world in accurate and worthy maps.

ALBERT A. WRIGHT.

THE ARCHÆOLOGICAL REPORT OF ONTARIO.

THE usual Ontario Archæological Report by David Boyle has appeared for 1899. It is printed by Warwick Bros. and Rutter, Toronto, 1900, as part of the appendix to the report of the Minister of Education. Upwards of two thousand specimens have been added to the museum of the Education Department, Toronto. A number of pipes and other specimens are figured. Of special interest are a description and figures of two perforated skulls found in Simcoe County, Ontario. The perforations are considered to be post-mortem, or at least to have been made immediately before the individual's death. The skulls are considered to be of Huron Indians, and remind one of the similarly perforated skulls described by Dr. Henry Gillman. Mr. E. H. Crane, of Niles, Michigan, has a skull from the Saginaw Valley which is also perforated in this manner.

An 'Iroquois Medicine Man's' mask is figured and described, and a brief report is given of the exploration of mounds examined by Mr. Boyle on Pelee Island in Lake Erie. Mr. G. E. Laidlaw contributes a paper on new sites in Victoria County; Mr. Andrew F. Hunter, on sites of Huron villages in the township of Tay, Simcoe County, with some bibliographic references; Mr. W. J. Winternberg, on Indian village sites in the counties of Oxford and Waterloo. 'The Wyandots,' by William E. Connelly; The War of the Iroquois,' by M. B. Sulte; 'Notes on Some Mexican Relics,' by Mrs. Wm. Stewart; 'Music of the Pagan Iroquois,' with music by Mr. A. T. Cringan; and 'A Study of the Word Toronto,' by General John S. Clark—are also included in the report.

Mr. Boyle has patiently worked for years to create interest in the archæology of his province. These labors are at last being supplemented by assistance from other students in the same region. Until the subject is more studied, it is well that his efforts to preserve the records and specimens be encouraged.

HARLAN I. SMITH.

EXPERIMENT STATION EXHIBIT AT THE PARIS EXPOSITION.

AT the meeting of the Association of American Agricultural Colleges and Experiment Stations, held at Minneapolis in 1897, a resolution was adopted in favor of a co-operative experiment station exhibit at the Paris Exposition. A committee, consisting of H. P. Armsby, chairman; W. H. Jordan, A. W. Harris, M. A. Scovell, and A. C. True, was appointed to take charge of the matter. The stations were invited to contribute materials and charts illustrating special features of their work and results, original pieces of apparatus, models, designs, etc. The material as it was prepared was shipped to Washington. Dr. True, Director of the Office of Experiment Stations, undertook to make a collection of photographs and publications of the stations, to prepare a monograph on the experiment station enterprise of this country, and to look after the temporary installation of the exhibit in Washington and its final shipment.

The photographic exhibit includes about 750 selected pictures of station buildings, grounds, laboratories, apparatus, experimental plants, herds and other features, in addition to a collection of photographs of the station directors and staff members. The pictures are mounted in groups on sheets of heavy cardboard, 22 by 28 inches, and will be displayed in portfolios of twenty-four each.

A series of root cages, furnished by the North Dakota Station, shows the formation of the roots of maize, wheat, flax and brome grass; models of sweet potatoes, peppers, apples and