

whether in his sleeping or waking hours, with the apparent sight or presence of a person whom he knows, shall immediately, without waiting for further investigation, state that fact on a postal-card, and mail it to the society, being careful to give the name of the person; also that any remarkable connection between this impression and any other circumstance subsequently discovered shall be sent in another communication. It should be distinctly understood that no case will be taken into account unless it is shown that the first card was mailed before the knowledge contained in the second was acquired. A correspondence of this sort might lead to something worthy of inquiry and investigation.

The evidence of haunted houses is entirely different in kind, but I must frankly admit that Mr. Gurney's reply to what I said on the subject in my previous paper does not strike me as satisfactory: indeed, he quite mistakes the point of my illustration, which was intended to show that events are all the time happening which we are unable to explain. The same logic that he uses would, it seems to me, lead to the conclusion that all tricks of the juggler which we could not explain after the most careful examination must be due to some other than known general causes. The general rule which we all unconsciously apply is, that if, upon investigating a class of seemingly unaccountable phenomena, we readily explain one-half, then explain another portion after much investigation, and with yet additional toil and industry succeed in explaining a third, but finally still have an inexplicable residuum, we conclude that this residuum could also be explained if we knew all the circumstances. This is the conclusion which everybody adopts in the affairs of common life; and I see no reason for making an exception to it in the case of that small collection of haunted houses which the committee on the subject has found it impossible to explain.

To sum up, I deem it essential that psychic investigators should find stronger evidence for the improbable than for the impossible.

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#### *SOME IMPLEMENTS OF THE MINNESOTA OJIBWAS.*

THE uses of a portion of the implements figured in Abbott's 'Ancient stone implements of eastern North America' are still somewhat open to conjecture. One group, comprising oval, grooved pebbles, has recently been reduced by Dr. Abbott to a classification comprehending mauls, club-heads, bone-breakers, and net-weights respectively (*Science*, iii. 701). These neolithic objects, and a second series closely allied to them, appearing in considerable numbers upon the New-Jersey coast, are attributed by their discoverer to the Indian races inhabiting the country when first colonized by Europeans; that is to say, to the Lenni Lenapé, or Delawares.

Now, the latter tribe, if it may still be called a tribe, is a cognate of our Algonkin-Ojibwas of the north-west. The languages of the two peoples are essentially the same, being dialects of the common Algonkin tongue, like the speech of the Canadian Crees, of the New-England Indians (preserved to us by the Eliot Bible), and of other nations. The Ojibwas, therefore, may not unreasonably be expected to retain, at the present time, vestiges of early race-ideas and race-practices which may, perhaps, serve in some way to illustrate the archeology of dead branches of the parent stock. Hence the writer of this paper thought it not amiss to set on foot inquiries touching the actual use of the two sets of implements instanced among the Ojibwas of Red Lake, northern Minnesota, where, owing to peculiar isolation, tribal peculiarities are believed to have been retained to an exceptional degree.

The members of the second series of implements, indicated above, are described as flat, discoidal pebbles, with side-notches, which in thickness vary little from about half an inch. These Dr. Abbott regards as almost certainly net-weights, considering that there would be no room for doubt upon the subject, were it an ascertained fact that the Delawares of prehistoric time were actually acquainted with the manufacture and management of nets. Now, the Ojibwas are credited by their native historian, Mr. William Warren, with making and using fishing-nets before the appearance of the whites in North America. In describing the Ojibwas seated upon the shores of Lake Superior, at La Pointe and vicinity, prior to the advent of the whites, he says:—

"The waters of the lake also afforded them fish of many kinds,—the trout, siskowit, white-fish, and sturgeon,—which in spawning-time would fill their

ivers, where, making racks across the stream, they would spear and hook up great quantities as the fish came down after spawning. They made nets of cedar and basswood bark, and from the sinews of animals. The ribs of the moose and buffalo made materials for their knives. A stone tied to the end of a stick, with which they broke sticks and branches, served the purpose of an ax. . . . Bows of wood, stone-headed arrows, and spear-heads made of bone, formed their implements of hunting and war."

*Ojibwa gill-nets.*—The nets used by the Red-Lakers are exclusively of the pattern known as gill-nets. When set, the apparatus depends like a perpendicular curtain from one of its longer margins, which is buoyed at the surface of the water by a succession of wooden floats (see fig. 1) tied to it at regular intervals



FIG. 1.—NET-FLOAT,  $30\frac{1}{2}$  INCHES LONG.

of a few feet with bits of grass, rush, bark, or of the material of which the nets are manufactured.

The net-appendages of stone are of two sorts. First, there are small manageable pebbles, or rough bits of rock, which, at intervals corresponding to those between the floats, are fastened along the under margin of the net, to hold it perpendicular in the water. These net-weights weigh a few ounces each, and are

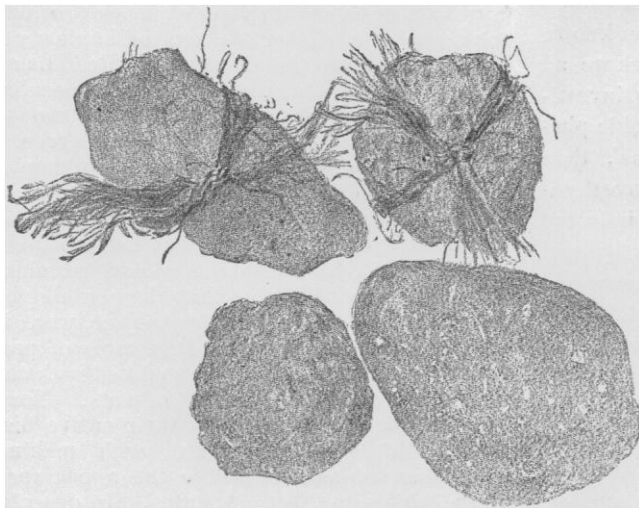


FIG. 2.—NET-WEIGHTS, ONE-HALF NATURAL SIZE.

never notched (see fig. 2). They are simply tied about the middle with the bit of grass, etc., by which they are hung to the net.

Second, there are heavier stone anchors

weighing from three or four to six and eight pounds each, which are suspended from the lower corners of the net to prevent it from drifting out of position. Sometimes one of these is also hung midway between the others. The net-anchor is also a mere unwrought block of stone of convenient size and shape. To prepare it for use, it is wound about and knotted in repeatedly with long, strong strips of bark, which, perfectly serving the purpose of cordage, enclose it in a rude kind of tackle. A lighter or heavier set of anchors is attached to a net according to existing conditions of wind and wave. The necessary anchors, with their bark investitures, are conveyed to the fishing-grounds before being hung in place, while the net-weights proper are more permanent fixtures. Indeed, I have seen the floats and stone-weights put upon the net as the work of manufacturing it went on.

Gill-nets being designed to insnare by the gills, they are adapted in size to the particular species of prey to be captured. Thus a family often employs a set of nets of different meshes. For example: Mrs. Dick Big-Bird, a Red-Lake woman of a thrifty turn of mind, keeps in stock four nets, ranging in point of mesh from small to great, and of such a length, that, when they are extended to the utmost longitudinally, they have a measurement of eighteen arm-stretches,—an arm-stretch equaling the spread of the two arms.

Lost net-weights, tied up in their little grass fastenings, occur most abundantly where they have become detached in dragging the fishing-apparatus over the ground, and likewise in spots where the women are accustomed to mend their nets and to spread them for drying. Of course, great numbers of these objects are also lost in the water from being washed out of their lashings. If we allow to a single outfit a complement of from twenty to thirty weights, with a varying equipment of anchors, we find that prodigious quantities of these stone bits must be used at one time and another, at every considerable fishing-station. The weights described would not, it is true, be recognizable in the future as remains, since they are wholly unwrought; but it is easy to imagine conditions which would necessitate the notching of these fragments, and thus render them subject to identification.

Other things being equal, it would seem that thin disks of stone would naturally be chosen for the purpose in question, as being least difficult to work notches in.

It may be proper to explain, that Red Lake lies in the Ojibwa reservation of the same name, to the north-west of the head waters of the Mississippi River. The band of about twelve hundred Indians inhabiting the reservation originated at Lake Superior, and journeyed hither by way of Rainy Lake; but it has been more or less re-enforced during its century of existence by Ojibwas of identical extraction, coming from various other northern lakes of the state, as Cass Lake, Gull Lake, and Winnebigoishish and Leech Lakes. Hence it may be inferred that the mode of net-fishing here practised is one prevailing commonly among the lake Ojibwas of the north-west; and this agrees substantially with their own statements upon the subject.

*Chopping-stones.*—It cannot be doubted, however, that notched discoidal pebbles have been in use among the Ojibwas from time immemorial as fuel-breakers. The objects figured in Abbott's 'Stone age in New Jersey' (figs. 204, 205), old edition (see fig. 3), are

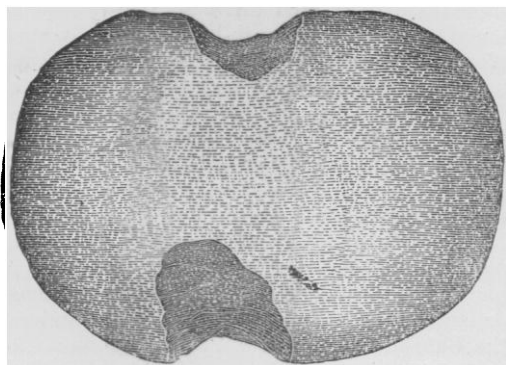


FIG. 3.—CHOPPING-STONE.

asserted by the Red-Lakers to be precisely such as are described by Mr. Warren in the quotation given above. These little implements are called axes, though they are not designed for cutting, and might with more propriety be specialized as chopping-stones. It goes without saying, that the primitive Ojibwas did not supply themselves with fuel after our fashion. They never cut body-wood for firing; but, having at command the illimitable forest with its abundance of fallen trees, they provided for warmth by simply breaking the dried bark and twigs, or large branches close at hand, into

lengths suitable for their purpose. Indeed, families very generally changed their dwelling-place, during the season of greatest cold, in order to bring such supplies within easy reach.

The tools represented by these figures seem much too small for effective work in their line, but I was assured by the Indians that this is not the case. In fact, the summer fires kept up for the purpose of driving away insects, and for drying fish and other game, and corn, as well as for occasional cooking processes, are commonly maintained (many times by children) with mere twigs, and such small boughs as would be most easily separated by a chopping-stone of small size. Old Ojibwa authorities state that they know no Indians who do not avail themselves of these simple fuel-breakers whenever unprovided with better tools.

*Rat-and-duck arrow.*—The small object illustrated at fig. 4 is a weapon of the chase,

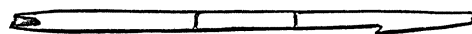


FIG. 4.—RAT-ARROW, NATURAL SIZE.

which is known to have been in occasional use at Red Lake as recently as a half-century ago. It was collected some years since by Mr. Elmer Hamilton, of the agency, from the beach of Red Lake, where it had been newly thrown up by the waves. A portion has been broken from the extremity of the stem, so that, as figured, it does not show the original length..

This instrument was unknown to the younger Ojibwas of the place, who, however, were of opinion that it must be something in the nature of a fish-spear. Later the object was brought to the attention of chief Leading Feather and certain other of the older members of the band, by whom it was at once recognized as a kind of arrow-point formerly used in the tribe for shooting muskrats and ducks. They called it, in fact, a rat-and-duck shooter, and they asserted that it was put to service by tying it securely at the end of an arrow, and despatching it from a wooden bow. Leading Feather and his friends had often heard of this weapon from old Ojibwa hunters, as one commonly employed by their tribe in ancient times, but at present superseded by fire-arms. Certain of the Red-Lakers claimed to have seen the implement in use during their boyhood. From all I could gather upon this subject, I judged that the rat-arrow was largely put in requisition at a former day, for destroying small animals which it was desirable to preserve unmangled.

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