

rillia, by Dr. Dall, who reported it when he was last here as occurring on the cod-fishing banks of the Shamagin Islands, where it annoys the fishermen in deep fishing, by reason of their lines becoming entangled among the polyps. Dr. Dall presented the California Academy with several specimens of the styles obtained by him in this region. Before, it was reported from only one place—namely, Burrard's Inlet, Gulf of Georgia, British Columbia.

EXPLANATION OF PLATE VII.

Fig. 1, basal part of axial rod.

Fig. 2, section of polypiferous part, showing arrangement of the polyps.

NOTE.—It should be borne in mind that the drawings, rough, but characteristic, are made from dry specimens, and that the root prongs in all of the specimens are broken and much shorter than when perfect.

The figures are considerably enlarged.

REPORT ON A FRAGMENT OF CLOTH TAKEN FROM A MOUND IN OHIO.

By J. G. HUNT, M. D.

[Letters to Prof. S. F. Baird.]

PHILADELPHIA, *February 21, 1881.*

DEAR SIR: The fragment of cloth you sent me for examination, purporting to have been taken from a mound in Ohio, has proved not a little refractory. It was impossible to detect any structure until proper treatment rendered it translucent. I think it a mistake to call such cloth "charred"; it is not charred by the action of fire at all, or by slow chemical combustion otherwise accomplished. But it is rendered quite black and opaque, as all other perishable organic remains become when excluded, by burial or otherwise, from the changing conditions of atmospheric influence.

The contents of a mastodon's stomach I once examined were black and opaque, like this cloth, but were not "charred." Indeed, we lack a term to express this curious condition.

Those ancient weavers did not practice the art of coating textile fibers with heavy chemical combinations, as some modern commercial Christians are supposed to do.

You desire to know exactly what fiber this cloth is made of? Alas! My evidence is only negative. It is not cotton; nor hemp; nor flax. I think it is not any fiber now used for textile purposes. Though vegetable in its nature, it is not a fiber at all, but consists of the entire stem of the plant, or of large portions of it, no apparent attempt having been made to separate the fiber before manufacturing. I think the

plant used for such cloth did not come from the exogens, but the structural evidence is too scanty and indistinct to justify me in speaking more decidedly.

The whole subject is of sufficient interest to warrant further study and comparison, and if any new facts of identification should appear I will write you. If you desire a slide of the material mounted for study, I can send one.

Very respectfully,

J. G. HUNT, M. D.,
1802 Wallace Street.

Prof. SPENCER F. BAIRD.

PHILADELPHIA, *March* 13, 1881.

DEAR SIR: I have now carefully examined all those specimens of grass sent by Doctor Vasey, and not one of them enters into the tissue of the mound cloth. I therefore arrive at the following conclusions regarding the cloth: It is made of vegetable matter. Only one plant enters into its composition. It is not cotton, flax, hemp, jute, manila, or any other fiber now used by civilized people in manufacture. It is not a fiber at all, but all or most of the stem has been used for the purpose. There has been no attempt made by those ancient weavers to separate any special fiber from the plant, and it is probable that they were ignorant of the process of rotting and hackling (so ancient), and now often used for that purpose. The fragments of this unknown plant present no distinct structural remains; not a cell can be seen. The only feature which may sometime lead to identification is an appearance of septa, crossing and apparently separating some fragments into indistinct divisions, as seen in this little figure [drawing]. If the material had been a grass we would have found some trace of epidermal structures, because in most of such plants silica imperishably preserves their structures. I think, therefore, that the bark of some other than a graminaceous plant has been used for the purpose. Again, I have been taught how limited is our knowledge of things. We know the names of enough things to overstock seven worlds, but of things we don't know enough to identify this plant of the ancient mound-weavers.

Very respectfully,

J. G. HUNT, M. D.

Prof. SPENCER F. BAIRD.