

stone of New York, Canada, Ohio, and Michigan. If you wish the name, here it is: "*Machæ'r'-a-can'-thus*, or "Dagger-spine."

Another type among the earliest American fishes was (*Rhyn'-cho-dus*, or "Beak-tooth") a form related to the *Chimæ'-ra*, which also resembles sharks. It has, however, a long, whip-like tail; its gill-slits are covered by a flap of skin, and the skull is blended with the jaws. The teeth consist of minute denticles firmly massed together into large tabular plates which are inseparably blended with the jaws. It has a long and powerful spine in front of each dorsal fin. The only known specimens of *Rhyn'chodus* are found in the Corniferous Limestone of Ohio; but it must have had a much wider range.

Another of the most common and most striking fishes of the same age appears to have been a relative of the modern sturgeons—a family of plated Ganoids. Our American geologists have almost buried it under a pile of nomenclature, which they have finished in the following shape: *Mac-ro-petal-ich'-thys* or "Big-plated fish." These fishes were of large size. The cranium was composed of large polygonal plates, united by double sutures which are nearly concealed by the tubercled enameled surface; the tubercles are stellate; the surface is ornamented by double rows of pores and single thread lines, forming a pattern which does not correspond with the plates below. These large, geometrically formed plates often attract the attention of quarrymen, since they are sometimes fifteen inches in length.

In this assemblage of oldest American fishes, we have to mention one more. This is a ganoid by the name of *O-nych'-o-dus* or "Hook-tooth." It was of large size. The cranium was composed of a large number of bony plates covered with an enameled and tubercled surface. The borders of the jaws were set with a row of conical, acute, more or less recurved, teeth; and, in the middle of the lower jaw in front, was a single series of large, curved, conical teeth, presenting a striking appearance, and often found imbedded in the Corniferous