A NEW SPECIES OF RECEPTACULITES (R. PEDUNCULATUS) FROM THE SILURIAN STRATA
OF EASTERN WISCONSIN

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According to Shrock\(^1\), the Silurian formations of eastern Wisconsin in ascending order consist of Mayville, Byron, Waukesha, Coral Beds, Racine-Guelph and Waubakee. The Waukesha has been postulated to be the southern equivalent of the Coral Beds. The rocks, with minor exception, are dolomites or dolomitic limestones. The fossil described in this paper was collected in a quarry near the town of Cedarburg, Wisconsin, about sixteen miles north and a little west of Milwaukee, from strata which seem to be either in the upper part of the Coral Beds or the lower part of the Racine.

The specimen is excellently preserved with respect to showing the general form and size, but the material of which it is composed has been entirely recrystallized from the original condition so that detail cannot be made out to perfection. The specimen is cone-shaped, but the enlargement from the base is not the same throughout so that the surface below the middle is concave outward. It seems to be open at the top and thus to have the shape of a glass goblet. The maximum diameter at the top is 38 mm. and it is about 50 mm. high. The base is slender and cylindrical, forming a stem about 12 mm. long, thence upward the increase in diameter is rapid. The head plates are arranged in the form of two spirals, trending in opposite directions and making nearly one turn in ascending from the base to the summit. Each spiral makes an angle of about 221/2° with the vertical axis. Plates also fall into an arrangement perpendicular to the axis, but it is not sure that this arrangement is annulate and not in the form of a low spiral.

The preservation is such that on a part of the specimen the interior impression of the skeletal structure is shown and on another part of the surface there is shown an impression of the

outer surface of the skeletal matter. The greatest number of plates observed in any one of the spirals is thirty-nine. Each plate shows a small basal depression which in many cases has an opening at the base. In the parts showing something of the skeletal structure there are two depressions in each plate; one is at the base and the other is at the upper corner. The latter seems to communicate with the lower end of the plate just above. There are four plates in 10 mm. along the line of the spiral in the upper part of the specimen; five in 10 mm. near the middle, and at least eight in 10 mm. on the pedunculate end.

The plates are rhomboidal in shape with the longer diameter of the rhomboid in vertical position and the shorter in horizontal. There are five plates in 10 mm. in the horizontal position near the top where there are four plates in 10 mm. in the spiral.

Two other species of Receptaculites have been described from the Silurian of Wisconsin. *R. hemisphericus* Hall has a hemispherical shape with a truncated base. This was collected from the Racine. *R. tessellatus* Winchell and Marcy has about the same dimension as this new species but is widest a little above mid-length and narrows toward the top. It has a moderately sized base of attachment that is not pedunculate. The plates at the top of the specimen are stated to be wider than high, whereas in this new form they are higher than wide.

The characters of the new form seem to be distinct from that of any Silurian species already described with the difference chiefly in the form of the pedunculate base. It is proposed to designate the new species under the name *R. pedunculatus*.

The holotype is in the collection of W. H. Twenhofel.