ultimately the same individuals become rhombogens and thenceforth produce only infusoriform young. Certain Dicyemids were found to contain both vermiform and infusoriform young. E. Van Beneden's view, that the infusoriform is the male Dicyemid, was confirmed by a study of its structure and a comparison of this form with the male Orthonectid (Rhopalura). From the fact that deeply staining bodies resembling the granules of the urn of the infusoriform, and probably for that reason spermatozoa were found among the germ-cells of the infusorigen, it was inferred that the infusoriform young may arise from fertilized ova, and that the infusorigen may be an adaptation for accumulating the germ-cells around a central cell to which the spermatozoa are also attracted, possibly by chemotaxis. It was regarded as probable that both the male (infusoriform) and female Dicyemid migrate into the kidneys of the young *Octopus* and there form colonies of nematogenic females before males are produced.

Notes on the Blind Fishes. C. H. Eigenmann.

1. There is a color pattern common to all the species of the Amblyopsidæ. This pattern is due to the arrangement of the chromatophores along the connective tissue septa separating successive muscle segments. The result is a series of longitudinal stripes where the septa are bent on the surface and a series of zigzag cross streaks. This pattern is best marked in *Chologaster agassizii*, in which but little color is present. It is somewhat obscure in *Chologaster cornutus* on account of the great development of pigment. It remains only as an arrangement of chromatophores in the blind members of the family where color is no longer present in sufficient quantity to be evident to the naked eye.

2. *Chologaster agassizii*, which has so far been known from the type only, was secured through a grant from the Elizabeth Thompson Science fund. It is a species with well developed eyes living permanently in caves. Its eye is notably smaller than that of the other species of *Chologaster* which live in open waters. The retina is very much like that of *C. papilliferus*, with thinner pigment layer. The eyes of the species of *Chologaster* show the following measurements:

C. papilliferus, 32 mm. long. Vertical diameter, .832 mm. Longitudinal, .880 mm.

C. agassizii, 39 mm. long. Vertical diameter, .720 mm. Longitudinal, .800.

C. cornutus, 32 mm. long. Vertical diameter, .960 mm. Longitudinal, 1.120.

Thickness of the retina of

C. papilliferus, 29–34 mm. long, .122 mm., 55 mm. long, .162 mm.

C. agassizii, 38 mm. long, .107 mm., 62 mm. long, .130 mm.

C. cornutus 27 mm. long, .73 mm., 43 mm. long, .83 mm.

3. The blind fish from Missouri is of different origin from the blind fishes east of the Mississippi. The details of this part of the paper have appeared in Science.

Regeneration and Regulation in Hydra viridis. Herbert W. Rand.

In a series of regeneration experiments upon *Hydra viridis* it was found that the polyps regenerate, on the average, fewer tentacles than are originally possessed. The more tentacles before regeneration the greater is the mean number after regeneration. Eight-tentacled *Hydras* showed the greatest reduction in the number of tentacles. Six-tentacled *Hydras* showed no reduction.

The average deviation from the mean was practically the same before and after regeneration. The average deviation from the mean after regeneration, and also the average deviation from the original number, was greater in the eight-tentacled groups and least in the six-tentacled.

The mean number of tentacles regenerated by whole six-tentacled *Hydras* was