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A MODERN CONCEPTION OF THE ACTION OF THE NERVOUS SYSTEM[1]

By Professor G. H. PARKER

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IT was my privilege as a young student of zoology to have made the acquaintance of Professor W. K. Brooks in the summer of 1889 at the Laboratory of the United States Fish Commission, Woods Hole. Here a body of mature investigators in marine biology was gathered and we younger workers were allowed to associate with them greatly to our advantage. It is an honor to be invited by Miss Fowler to deliver this lecture, and it would be a pleasure to me if I could think of it as a small return to Dr. Brooks for the kindly help and encouragement he gave to all of us who were associated with him at the Woods Hole Station. In a way this lecture is an appropriate tribute to Dr. Brooks, for much of its contents was brought to light in those laboratories that have grown up at Woods Hole around the original one where he worked. I am further disposed to think that the special subject herein discussed, the mode of interaction of nervous elements, would have claimed a fair share of Dr. Brooks's interest, for his philosophical temperament would have led him not only to seek a clear picture of the nervous mechanism in animals, but to gain an insight into the way in which this mechanism acts.

The histologists of half a century ago described the nervous system as composed of ganglion-cells, nerve-fibers and fibrillar material. With the advent of the Golgi method in the last quarter of the past century it became possible to determine the relations of these

[1] Third William Keith Brooks Lecture, delivered at Greensboro College, Greensboro, N. C., April 25, 1940.