occurs in a smaller collection of Hexactinellida dredged by Dr. Hilgendorf at the same locality, and also graciously placed at my disposal. Of course one cannot conclude from this single instance that at all the localities explored on the Challenger Expedition, eight times as many species would have rewarded a more prolonged exploration, but the facts above communicated are calculated at least to convey an impression of the relatively small proportion of the really existing Hexactinellid species that rewarded the search of an expedition so splendidly equipped and successfully conducted as that of the Challenger. And if one further considers that in spite of the large number (276) of dredgings or trawlings undertaken, immense marine regions, especially the North Arctic and the greater part of the Indian Ocean, were hardly touched upon, and that in many of the regions traversed only sample searches were made, one cannot avoid the conviction that, in spite of the relatively important increase of knowledge obtained by results of the Challenger Expedition, only a small percentage of the really existing Hexactinellid species have as yet been discovered.