little over four inches, and fifty-one inches focal length.

The method seems to be ideal, because each station will use identically the same reference points in the sky to determine the distance from each to the zenith, and whatever errors of absolute place each star or pair of stars may have, it cannot influence the result, for all use the same stars.

As they will all be reduced from the mean year to date of observation with the same constants, the only error that can in any way influence or mask the small variation of latitude is the proper motion that may obtain to each star, or each pair of stars. If any of the stars have large proper motion, the continued latitude derived from a pair thus affected will be either an increasing or decreasing latitude from that obtained from other pairs.

The completion of this plan in which the stations will be kept in operation, both by the German Geodetic Service, our own Coast Survey and the Russian government, places it upon a plane to sift to the utmost the hidden truths of the problem, and makes possible the determination by a long series of observations, if such is possible, the real value of the terms in the variation of latitude, and if they can be satisfied by any law of prediction as to the future movement of the pole.

GEO. A. HILL.

NAVAL OBSERVATORY,
WASHINGTON, D. C.

THE AMERICAN MORPHOLOGICAL SOCIETY.

THE American Morphological Society held its tenth annual meeting at New Haven, Conn., December 27 and 28, 1899. Among the items of business transacted may be noted the election of Dr. H. L. Bruner, Dr. G. A. Drew, Dr. C. R. Eastman, Dr. C. H. Eigenmann, Dr. J. Y. Graham, Dr. J. B. Johnston, Dr. F. C. Waite and Miss L. B. Wallace to membership in the Society; and the election of the following officers for the year 1900: *President*, T. H. Morgan; *Vice-President*, H. C. Bumpus; *Secretary-Treasurer*, J. S. Kingsley; *Members of Executive Committee*, F. R. Lillie, Jacob Reighard.

The following are abstracts of the papers read before the Society:

The homologies of the ear bones: J. S. KINGSLEY.

The chief points in the paper are the recognition of a distinct skeletal element between hyoid and mandibular arches, which in the reptiles forms the extracolumella and in the mammals the manubrial portion of the malleus. In this element was recognized the branchial arch of a segment which has been pointed out in this region from the evidence of somites, neuromeres, cranial nerves, etc. The author maintained the identity of quadrate with incus, articular with the body (caput) of malleus and claimed that no matter what view one took of the homologies of the ossicles of the middle ear, they were forced to admit that the articulation of the lower jaw in the mammals was not homologous with the articulation of the mandible in the lower vertebrates. It was pointed out that the evidence for a reptilian ancestry of the mammals did not stand analysis, and that the origin of the group must be sought in primitive stegocephals.

The foramina of the scapula: J. S. KINGSLEY.

In embryo pigs 18 to 60 mm. long, the dorsal crest of the scapula presents four foramina through which pass dorsal nerves, arising from the second to fifth thoracic ganglia, and passing directly to the skin. These were regarded as possibly indicating that the scapula was made up of metameric parts, and it was pointed out that these results were in full accord with the recent studies of Bolk upon the muscles of the shoulder girdle. They might be interpreted as adverse to Gegenbaur's views as to the origin of the girdles.