SCIENCE:

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THE Zoological Society of London has made an interesting addition to their gardens, by building an Insectarium for rearing insects in captivity, watching their transformations, and making a thorough study of their life history and habits.

The building erected for the purpose is a substantial structure of iron and glass, the cases containing the insects being arranged on stands all round the building, and occupying two tables in the centre. These cases are formed of zinc, the upper part glazed on all four sides, and the top arranged with a perforated zinc cover for the purpose of admitting air.

The Insectarium has been opened with an exhibition of specimens of some of the larger and finer species of silk-producing moths of the family Bombycidæ. Among these more specially noticed by a correspondent of "*Nature*" are Glover's Silk-moth (*Samia Gloveri*), and the Cercopian Silk-moth (*S. cecropia*) of North America, Perny's Silk-moth (*Attacus Pernyi*) of Northern China, the Tusseh Silk-moth (*A. mylitta*) of India, and the great Emperor Moth (*Saturnia pyri*) of Europe. "These have been imported from their native countries in the stage of chrysalis. Of the first three above named, many examples are already hatched, and the splendid *imagines*, or perfect insects, are appearing one by one. Soon after appearing the sexes unite and eggs are produced, after which the parents quickly perish. The fertilized eggs remain to produce caterpillars, which eventually form a second set of pupæ or chrysalises, and thus continue the species."

"On the north side of the Insectarium the smaller cases are devoted principally to the rarer and more noticeable moths and butterflies of Europe, such as the Swallow-tailed Butterfly (*Papilio machaon*), the Black-veined Butterfly (*Aporia cratægi*), the Purple Emperor (*Aptaura iris*), and the Orange-tip (*Anthocharis cardamines*) among the former, and the Scarlet Tiger Moth (*Callimorpha dominula*) and the Emperor Moth (*Saturnia carpini*) among the latter group. The series is continued, mixed with other forms, at the east end of the building. On the large tables in the middle of the Insectarium are examples of other butterflies, moths, beetles, mayflies, stoneflies, and aquatic insects of different kinds, all well worthy of attention and study. The whole series exhibited, now contains examples of about fifty species, but daily additions are made to it."

The establishment of the London Insectarium may be the means of calling the attention of our authorities to the necessity of establishing a similar institution in this country, where an Insectarium is much more needed than in Europe. The United States Congress has granted large sums for scientific investigations, in the hope that means might be suggested for mitigating the ravages of insects. Twenty-five thousand dollars represented the expenses of the Entomological Commission, the report of which will be noticed in our issue of next week. A large proportion of this sum was devoted by the Commissioners to an exhaustive examination of the brain of the locust and other interesting histological work.

It appears to us that such histological work might be well accomplished in an Insectarium, and twenty-five thousand dollars would be a very handsome appropriation for such an establishment; the work could then be concentrated, the mental and physical attributes of insects, with all their habits of life, could be studied in a systematic manner. This arrangement, with reports from the field, would probably cover more work than has been accomplished in this direction by previous commissions.

Perhaps under the new management of the Agricultural Department the propriety of establishing an Insectarium may be considered, for the Commissioner would have no difficulty in securing a competent entomologist to take charge of it.

LOCALIZATION BY THE EYES.—Professor Helmholtz recently addressed the Physical Society on the localization of objects by the eyes. We estimate distance with one eye by the outlines of the more distant objects being covered by the nearer one where they meet, and by the shadows thrown by the anterior objects. These conditions are very rarely overpowered by others, as for instance, binocular vision. This is shown by Dove's pseudoscope, and the fact that closing or blinding one eye makes little difference to the power of judging distance, especially when not very close to the eye. The relative shifting of objects as the eye is moved from side to side, or to and fro, or up or down, which may be called the parallax of motion, is also a strong factor in estimating distance. He concludes from a study of the stereoscope that the perception of the absolute convergence of our eyes is very indistinct, and that only differences of convergence related to apparently near or distan objects produce the stereoscopic effect.