

More than twenty years have passed since the last edition was issued, and during that time no branch of natural science has made more substantial and rapid progress than this department of entomology. The number of zealous workers in the field has greatly increased, and the accumulated stores of collectors have been subjected to close examination and critical study, chiefly by the distinguished authors of this work, and the results have added to our list of genera and largely to our list of species, which now includes more than 11,000 in all.

In the introduction the external organization of the Coleoptera is fully treated of, aided by illustrations and followed by a useful series of tables of the various orders. The whole of the classification has been revised and brought into harmony with the present advanced condition of knowledge on this subject. The work is very complete and bears evidence of the vast amount of labour and erudition bestowed on it. Collectors everywhere will find it a most valuable guide in their studies and in the arrangement of their collections.

THE PINE MOTH OF NANTUCKET, *Retinia frustrana*; by Samuel H. Scudder. Crown 8vo., 24 pages, with one coloured plate. Published by the Massachusetts Society for the Promotion of Agriculture, 1883.

We tender the author our sincere thanks for this excellent paper, containing the life history of this new enemy to pine trees, to which is appended a brief account of other native species of *Retinia*. The pamphlet is well gotten up, and the coloured plate a chromolithograph, beautifully executed. It represents the insect in its various stages along with the tips of the injured branches.

REPORT OF THE COMMISSIONER OF AGRICULTURE, of Washington, for 1881 and 1882; 8vo.

We have been favoured with a copy of the full report by the Commissioner, and have also received separate reports from the Entomologists, Prof. C. V. Riley and Prof. J. H. Comstock. The full report forms a large octavo volume of 703 pages, and is illustrated with a number of plates and diagrams. The report of the Botanist on grasses suitable for Texas, has twenty-five plates; that of the Veterinary division on Swine Plague, Fowl Cholera, and Southern Cattle Fever, twelve plates. The report of the Chemist contains the results of an extended series of experiments on varieties of sorghum and maize, with results of the analysis of the constituents of these plants at different periods of their growth, particularly in reference to the available sugar contained in them. This valuable section of the work is illustrated by twenty-one plates, and contains also much other useful matter in reference to analysis of soils, fertilizers, etc. There is also a report from the Superintendent of Grounds, in which he gives the good results of mulching the ground with refuse tobacco stems, as a remedy for thrips on foreign grape vines grown under glass, and submits notes on a number of tropical and sub-tropical plants, some of which might probably be cultivated with success in southern California or southern Florida.

That part of the report devoted to Entomology is extremely interesting, and contains much that is valuable; it occupies 154 pages and is illustrated by twenty plates. The chief subjects treated of in Prof. Riley's portion are Silk-culture in the United States; Pyrethrum, its history and cultivation; the Army Worm, Scale Insects of the Orange, including the results of experiments with emulsion of kerosene oil for their destruction; Insects affecting the Rice Plant; Corn Insects, the Cotton Worm, Clover Insects. In that part contributed by Prof. Comstock we find a very complete history of the Apple Maggot; also of some allied species of *Drosophila*; a chapter on Lady-birds, and another on Lac Insects, all illustrated by excellent plates drawn by Mrs. Comstock. Some valuable information is also given on methods for destroying Scale Insects with alkaline solutions.

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