NEW BOOKS.

INSECTIVEROUS PLANTS. By Charles Darwin, M. A., F. R. S., etc. With illustrations. New York; D. Appleton & Co. For sale in Buffalo by MARTIN TAYLOR.

One of the most remarkable of recent discoveries in vegetable physiology, is the fact that certain classes of plants which have long been known to entrap insects, actually subsist by their destruction. The appliances and method of capture differ in the various orders and genera of plants. The *Drosera*, or Sundew performs this by means of a viscid fluid and filamentary tentacles with which the leaves are covered.

The *Dionœa muscipula* or Venus's Flytrap, a plant of the same family, has two-lobed leaves the outline of which is almost exactly similar to the expanded jaws of a steel trap. The outer edges are armed with rows of sharp spines, and the two lobes of the leaf are hinged on the midrib. An insect alighting on one of the leaves is quickly caught by its closing together. The *Sarracenias* have trumpet shaped leaves, the cavity filled with aqueous fluid in which insects are drowned. The *Nepenthes* or oriental Pitcher Plant has singular pitcher-like appendages suspended from the extremity of the leaf peduncle which act similarly to leaves of the Sarracenia.

Of all these plants no class has excited so much interest as the *Dionœa muscipula*. Several able monographs on its singular habits have been published during the past few years.

But our author conducted most of his observations with the *Drosera rotundifolia*. By a long and careful series of experiments he demonstrated with scientific accuracy certain facts which had before been but half-guessed; and discovered others whose existence had never been suspected. His first inquiry was into the structure of the tentacles with which the upper surface of the leaf is profusely covered. He found they were not true hairs, but complex organs, each with a gland on its summit. These glands were found to possess the power of secretion, digestion and absorbtion. They are each surrounded by large drops of extremely viscid secretion which glittering in the sun have given rise to the plant's poetical name of Sundew. The method of capture is thus described:

"When an insect alights on the central disc, it is instantly entangled by the viscid secretion and the surrounding tentacles after a time begin to bend and ultimately clasp it on all sides. Insects are generally killed, according to Dr. Nitschke, in about a quarter of an hour, owing to their tracheæ being closed by the secretion. If an insect adheres to only a few of the glands of the exterior tentacles, these soon become inflected and carry their prey to the tentacles next succeeding them inwards. These then bend inwards and so onwards, until the insect is ultimately carried by a curious sort of rolling movement to the centre of the leaf. Then, after an interval, the tentacles on all sides become inflected and bathe their prey with their secretion, in the same manner as if the insect had first alighted on the central disc."