Hooker's Rhododendrons, Harvey's American Algæ, Seemann's Herald Botany, Hooker's Flora of North America, and other illustrated works.

BOTANICAL SOCIETY OF CANADA.

" He doth take my life
Who takes the means that doth sustain my life."

Within the past few days several farmers in the neighbourhood of Kingston have transmitted to the Botanical Society of Canada ears of wheat and other grains infested with an insect, which, although individually minute, presents a formidable appearance on account of the vastness of its numbers. In some cases the little parasite completely covers the ears of grain; in fact the wheat is " dark with it." The insect in question is a species of plant-louse. It is not probable that it now makes its appearance in Canada for the first time; but this season its unusual abundance has served to attract the attention of farmers. It appears from the newspapers that the same, or a similar, insect is at present infesting the wheat and other grain crops in the United States.

The aphides are very numerous, and many domestic plants, such as roses and geraniums suffer severely from their attacks; their usually green color has obtained for them the name of green fly. Naturalists, at one time, thought that every plant had its peculiar attendant Aphis; but it is now known that the same species, in most cases attacks various plants. They do not gnaw the leaves of the plant like caterpillars, but simply suck the juices.

The plant suffers, its energies are weakened, the leaves and other parts shrivel and blister, and an inroad is formed for other diseases.

In the present case, the fly, as yet, presents itself chiefly in the wingless form, the individuals appearing like rather large, crawling mites of a brownish-yellow color varying to apple-green. In some cases, where the whole ears were covered with the insects, the total destruction of the crop seemed inevitable, yet there is not much cause for concern. Undoubtedly, the yield will be lessened by their presence, and the quality of the grain perhaps, slightly deteriorated, but it is not likely that the injurious effects will prove so formidable in extent as the appearance of the insects is apt to indicate. In Britain, the bean crop is annually liable to the attacks of an allied black species (*Aphis Fabæ*), which appears in such numbers that, in autumn, when they acquire wings, they leave the bean fields and darken the atmosphere with living clouds—yet farmers do not find their bean crop very light. This is the so called " Cholera-fly " of Europe, which although ominous in aspect and name, is practically felt to be injurious only from its troublesome habit of flying over the country in clouds, covering the roads with a shower of living, crawling forms, and filling the eyes, nose, and mouth of weary travellers as they pass along, with the dusty roads in autumn.

The rapid reproduction of Aphides is one of the most singular features in their history, and serves to explain their apparently sudden appearance in vast numbers. In these insects the ordinary laws of development appear to be departed from; but the researches of Bonnet are now strengthened by the observations of phenomena of a similar kind in certain other insects. In spring and summer, the Aphides are all females, and wingless—there being no male individuals, whatever—yet, many generations of living young are almost weekly produced throughout the summer: these are likewise females. The males are not born until the end of summer or autumn. Some of these have wings, but their comparatively heavy bodies render their powers of flight very feeble, so that when they leave the plants upon which they are parasitic, they are carried hither and thither by the atmosphere currents.

In the case of garden roses, green-house plants, &c., an apdlication of tobacco water, or tobbacco smoke, serves to remove the aphides, or at least to lessen their numbers; but no satisfactory remedy is known to be applicable to field crops.

Kingston, August 9, 1861.