

two species of moths had destroyed pine forests belonging to the State and valued at several millions, and a larger calamity was imminent, when suddenly all caterpillars died from the same fungus.

Similar observations have been made in other places in Europe and here. Mr. Trouvelot formerly began in Medford, Mass., the raising of the *Polyphemus* moth for silk, and was successful enough to get a prize in the Paris Exhibition of 1867. Unfortunately he brought home from Paris eggs of another species from China, and purported to be superior for silk-raising in the open air. Those eggs proved to be infested by fungus, and the caterpillars hatched from them died, but not those alone. All caterpillars of the *Polyphemus* moth became infested, and even most of the other indigenous species living on the twelve acres of shrub land which Mr. Trouvelot utilized for this purpose, died rapidly. After two years of a similar calamity, Mr. Trouvelot was obliged to stop his experiments, which might have developed, perhaps, a new source of wealth for this country. A similar pest of an indigenous species of moth stopped only last year the interesting observations of Mr. Siewers in Newport, Kentucky.

The common silkworm in Europe has been in recent times extensively affected by a sickness called muscardine, which is also the consequence of a fungus. Similar fatal epizootics have been observed on the honey bee, and in Brazil several years ago nearly all the bees died from this cause. In Entomological journals are reported fatal epizootics of leaf lice, of grasshoppers, of the cabbage butterfly and of the currant worm, both imported here only a few years ago, and both very obnoxious.

Considering those facts, which are doubtless true, and considering the easy way in which the poisonous fungus can always and everywhere be procured and adhibited, I believe that I should be justified in proposing to make a trial of it against insect calamities. Nature uses always to attain its purposes the most simple and the most effectual ways; therefore it is always the safest way to follow nature.

Beer mash or diluted yeast should be applied either with a syringe or with a sprinkler; and the fact that infested insects poison others with which they come in contact will be a great help. Of course it will be impossible to destroy all insects, but a certain limit to calamities could be attained, and I think that is all that could reasonably be expected. In greenhouses the result would probably justify very well a trial, and on currant worms and potato bugs the experiment would not be a difficult one, as the larvae of both insects live upon the leaves, which can easily be sprinkled. But it seems to me more important to make the trial with the Colorado grasshopper. I should recommend to infest the newly-hatched brood, which live always together in great numbers, and I should recommend also to bring the poison, if possible, in contact with the eggs in the egg-holes, to arrive at the same results, which were so fatal to Mr. Trouvelot's silk-raising. After all, the remedy proposed is very cheap, is everywhere to be had or easily to be prepared, has the great advantage of not being obnoxious to man or domestic animals, and if successful would be really a benefit to mankind. Nevertheless, I should not be astonished at all if the first trial with this remedy would not be very successful, even a failure. The quantity to be applied and the manner of the application can only be known by experiment, but I am sure that it will not be difficult to find out the right method. I myself have more confidence in the proposed remedy, since it is neither an hypothesis nor a guess-work, but simply the application of true and well-observed facts. I hear the question—When all this has been known for so long a time, why was it not used long ago? But is that not true for many, not to say for all, discoveries? Most of them are like the famous Columbus egg.

A SUCCESSFUL MOTH-TRAP.

BY O. S. WESTCOTT, RACINE, WIS.

Many attempts have been made to devise something by means of which to capture the Noctuidæ, but the results have been usually so meagre that the contrivances have been abandoned in disgust. I have been using a contrivance this season which will

really abundant. It contains potassium. at right angles five inches by funnel mouth and on the edge of this rests upon the is placed a sheet and a tin flap desired conflict.

The moth the mica, and potassium as of an inch or such a way as most likely to tuidæ and Col entirely new to

I have re-found them, and other valuable cases for holding especially to y of cabinet I ar

Among the Insects) are the drawers in a cabinet have adopted the be made of an and the frames together, or between say two inches, two inches wide in width. It is apart gives me twelve by fifteen vantages claimed and can stand firmly held, and door shuts close for which (thirt of thin stuff (sa ridge paper is v ed one sheet wi should not be tions are made great convenien