

which it contains. Of late years, however, the extensive development of the South Carolina phosphate and marl trade has diminished the inquiry for apatite. It is more plentiful in the provinces of Ontario and Quebec than it is in the United States, Canada having shipped to Europe in 1882 over 17,000 tons, in addition to 5,000 tons sent to the New Jersey State Agricultural Experiment Station. It commonly occurs with metamorphose crystalline rocks, and in connection with metaliferous veins; though it is sometimes found in rocks of later geologic periods and occasionally in large masses. The chief localities in the United States have been in Massachusetts, at Crown Point, (N. Y.,) where it was at one time extensively mined, and also in New Jersey, associated with iron-ore. Under these conditions, however, it has proved useless for agricultural purposes.—*Popular Science News.*

A DESTROYER IN THE SPRUCE FORESTS OF MAINE.

According to accounts of observations published in the third *Bulletin* of the Entomological Division of the Department of Agriculture, the ravages of the spruce bug worm (*Tortrix fumiferana*) have been extensive and destructive in the coast forests of Maine west of the Penobscot River. The damage appears to have reached only a few miles inland from the coast, but the belt in which it has prevailed is marked by extensive masses of dead woods. The trees are attacked in the terminal buds, which are eaten away,

and when this is done the case is hopeless. The fatal character of the attack is owing to the fact that the spruce puts forth but few buds, and those mostly at the end of the twigs, and, when these are destroyed, it has nothing on which to sustain the season's life. The attack is made in June, when the growth is most lively, and just at the time when the check upon it can produce the most serious results. The larches are also attacked by a saw fly, but with results that are not as necessarily fatal as in the case of the spruce. They are more liberally provided with buds, some of which may escape and afford a living provision of foliage. The larch, moreover, sheds its leaves in the fall, and is in full foliage before its enemies attack it. Hence, while the spruce and fir succumb to the first season's assault, the larch can endure two years of them.—*Science Monthly.*

SHELL-FISH AS FOOD.

Europeans are more given to the use of shell-fish as food than we Yankees, partly, no doubt, as a matter of economy. An English journal says: "The question of the value of shell-fish as food is not destitute of importance, from their large daily consumption. The oyster contains as large a percentage of nitrogenous or flesh-forming matter as an egg, each having about fourteen per cent, while the mussel follows close upon the oyster in this respect. Even compared with lean beef, the comparison is by no means unfavorable, the latter having only