Canada's Insect Destroyers

The Woodpecker and Chickadee are Especially Active in Trees and Foliage

Canada's bird visitors are rapidly returning for the warmer season, and we may again look forward to their assistance in the destruction of caterpillars and insects, so destructive to our trees.

One of the most important of these birds is the woodpecker. It feeds on larvae and small insects, which are found in crevices

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AFTER THE BORERS—Woodpecker with a billful of wood, boring larvae. They are great destroyers of Coddling Moth and other insect pests.

of the bark; securing them with its protrusible tongue. This tongue is sharp, hard at the end, has barbs directed backward, and can be extended several inches. The red-headed woodpecker, besides digging insects out of bark, seizes them on the wing. In the examination of over 700 stomachs of woodpeckers, animal food, mostly insects, was found to constitute 76 per cent of the diet, and vegetable matter 24 per cent. The animal food consists largely of beetles and caterpillars, and includes many harmful species.

The chickadee is another of our most active insect destroyers. It is especially active in the vicinity of any timber or wood chopping. The birds will become very familiar, and will readily make friends. Not being equipped, as the woodpecker is, with a long bill, they take advantage of the cutting of cordwood, etc., to secure the grubs found under the bark or exposed in the cutting. As a rule, however, they feed upon the insects of the orchard, the bush or shrubbery.

The woodpecker and the chickadee are only two of the many birds which are of great service both in the city and country, and it is surely not too much to ask that people give them the necessary protection to allow them to continue their invaluable work.

The illustrations herewith are used through the courtesy of the American Forestry Association, of Washington, D. C.

Electric Light on the Farm

Convenience and Attractiveness Assists in Keeping Young People on the Farm

The Hydro-Electric Power Commission of Ontario, in its Seventh Annual Report, gives some interesting data on the advantages and cost of installation of electric lighting in farm homes and outbuildings. The report says: "The farmers in the districts that are being served greatly appreciate the improved condition on their places by reason of having electric light in the house, barn, drive shed, and yard. With previous forms of lighting, the dull appearance of the place from the road and from the yard had a depressing effect. The attractive contrast that is the result of installing electric light will probably be beneficial in keeping the young people on the farm. The decrease of fire risk on the premises due to the absence of coal oil lanterns and lamps is another feature that is usually considered by the farmer in arriving at a conclusion regarding the installation of electric service on his premises.

"Installations in barns are now being made in conduit, as this method is found necessary for the protection of the wires and fittings. The cost of installation varies according to conditions in the different districts. The open wiring varies from $1.25 to $1.75 per outlet and the concealed wiring from $1.50 to $2.25 per outlet. Conduit installations in the open, that is, in barns and farm buildings, vary from $3.25 to $4.50 per outlet. The outlet in each case is the opening for either fixture or switch; it does not include (except where drop cord is used) the fixture, but does include the switches."

Influence of War on Water Powers

Many New Developments to Supply Abnormal Demand for Power

One of the results of the European conflict upon hydro-electric undertakings is the proposed development by the United States Government of an important power site on the Tennessee river for the manufacture of power. It is proposed to install 125,000 minimum horse-power to meet all probable ordnance demands for fixation of nitrogen from the air, and it is stated that all such demands may be safeguarded by providing for an amount of power up to 300,000 h.p. If constructed, the project will be directed by army engineers, and will cost about $20,000,000.

As a result of the foreign demand for electric-furnace products, the Pennsylvania Water & Power Co. is utilizing its off-peak power for these manufactures, an example that may be profitably followed by some of our Canadian hydro-electric plants. This company had long been considering ways and means of bettering its load factor and finally determined that the development of electric-furnace usage was the natural means of producing the desired results. It was apparent that, to reap the fullest benefit, these electric furnaces should be operated by the power company, to ensure the power being used in the furnaces as, and when, the power company saw fit. Various ferro-alloys and other materials are made most successfully in the electric furnace. After carefully considering which would be the most profitable to meet its requirements, the Pennsylvania Water and Power Co. decided upon the manufacture of ferro-silicon and have recently erected and put in operation a 10,000 h.p. electric furnace having a capacity of 30 tons per day or 10,000 tons per year.—L.G.D.

Talc Industry

Many Uses for this Widely Distributed Mineral

Talc or soapstone is now being shipped to Great Britain from South Africa, a development in the industry which has taken place since the beginning of the war. Talcose minerals have been found at many places in the Dominion, but with the exception of the mines near Madoc, Ont., have not been mined to any great extent. In Frontenac, Hastings, Leeds, and other counties in eastern Ontario, a number of such deposits have been discovered; in Brome county, in the Eastern Townships in Quebec and in the Maritime Provinces deposits of potential value are known.

The United States is the largest producer and the largest consumer of talc in the world; the production in 1913 was valued at over $1,900,000. The United States imports some of the finer grades from France and Italy, at prices varying from $15 to $25 per ton.

Much of the talc is ground exceedingly fine and is used chiefly as a, so-called, "filler" in the manufacture of paper. Next to the manufacture of paper, the rubber industry utilizes most talc. It is also used as an adulterant in cheap grades of soap; for "sizing" cotton cloth; for insulators; manufacture of paints, toilet powder, etc.

As the demand for talc is increasing, it is hoped that at least a portion of this demand will be met by the greater production of Canadian talc.—W.J.D.

Maple for Cross-Ties

Its Use, after Treatment, Found Satisfactory

Ten years ago maple was practically unknown as a railway cross-tie, being included in the list of woods that decayed too quickly for this purpose. Treating with creosote renders it immune to decay and, it, now, figures quite largely under the head of "miscellaneous hardwoods," while in some regions it constitutes a considerable percentage of the ties treated. As clear hard maple is too valuable for flooring and other purposes to be used for ties, the tops and smaller trees are utilized for treatment. Maple takes creosote treatment fairly well, being, in this respect, very similar to beech and red oak. It does not treat as uniformly as some of the other woods, but absorbs creosote sufficiently well to become fully protected against decay. As with most other woods which do not take full penetration, it is best to bore and adze maple ties before treatment.—*American Forestry.*

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AN INSECT DESTROYER—A Chickadee eating an old Tent-Caterpillar's nest for eggs deposited by the Moths before dying.

When raking up the garden and lawn in the spring many bones will be found, carried there by the dogs and buried in the snow. These should be gathered up and buried around the roots of trees and bushes. They are rich in potash and make an excellent fertilizer.