

THE SPRUCE GALL-LOUSE.

In view of its increasing prevalence, we give herewith an illustration of the spruce gall-louse which has within recent years been discovered in shade trees and hedges in Ontario, and which, it is feared, will find its way to forests. Numerous specimens have been collected from spruce trees growing in different sections, and there can be but little doubt that it is on the increase. The insect's mode of working is to deposit its eggs at the junction of the needle and the bark, when the wood grows over them, causing an ugly-looking bulb. The young insects feed on the wood until they have developed into flies, at which stage they come forth, and the operation is repeated. Thus, in the course of a couple of years, the tree is ruined.

Dr. Brodie, in a paper published in the last report of the Clerk of Forestry, describes the gall-louse as a very small insect, which causes burr-like galls on twigs of several species of evergreens; the galls are rough and scaly, often two inches long, and in diameter about twice the diameter of the twig on which they are found. They are greenish in summer, becoming brownish towards the fall season, gradually assuming the color of dead spruce foliage. Each gall has from thirty to over one hundred cells and each cell contains from ten to thirty lice, which feed and mature within the cells, and when full grown, about the end of July, the cells open, allowing them to emerge. They then assume wings and can fly a considerable distance. Each one lays from 25 to 50 eggs and dies before winter. They pass the winter in egg form, emerge in the following spring and commence the season's crop of galls.

The small twig on which the gall is formed is quite destroyed, thus retarding the growth of the tree, at the same time giving it a very sickly and unsightly appearance. It would appear, so far as reported, that most injury is done to young trees, such as nursery stock and young growing hedges, and as far as observed in Ontario, the galls were on young trees and on the middle branches of medium-sized trees. But there can be but little doubt that if once established in a spruce forest it would do immense injury. This is something to be apprehended and guarded against. A few insect enemies have been noted, and no doubt many of our smaller insectivorous birds, such as chickadees, nuthatches and warblers, prey on the gall-louse. But it would seem the main reliance must be on artificial methods of destruction. Spraying has been tried with fair results, but of all methods recommended, hand-picking of the galls toward the end of June, before the producers have emerged, is the surest and best. They are readily seen and should be snipped off with the scissors or knife and at once burned.

This destructive insect was first mentioned in American entomological literature in 1869, and since then it has been spreading, and now has a very wide geographical range. Unfortunately it is now in Ontario, and no doubt gradually moving northward towards our spruce forests. Our native trees liable to its attacks are the double spruce, *Picea nigra*; the white spruce, *Picea alba*; the hemlock, *Tsuga Canadensis*; and it is altogether likely it will be found on the balsam fir, *Abies balsamea*; but so far as yet observed in Ontario it is most common on the imported European spruce, *Picea excelsa*. As yet there is no positive evidence that this insect will attack the upper branches of full-grown forest trees, but it is most likely it will do so anyway, there is no negative evidence.

Chermes abietis is a European insect, and has been imported into America on the European spruce; it is common in northern Europe and so is very likely to take readily to our northern forests.

It must be very obvious to every one that the most sensible and efficient way to combat any recently introduced injurious species is to attack it on its first recognition, before it spreads over a wide area. And it would be well for every one having spruce shade trees and spruce hedges to see that they are thoroughly cleaned of the galls of *Chermes abietis* in early summer, before the scales open and the producers emerge, and if this cannot be done the trees should be dug up and burned.

A. Gagnon, Victoriaville, Que., are adding one of the Jenckes Machine Co.'s standard boilers to their equipment.

William McVicar, McVicar, Ont., is putting a Dake steam feed into his mill. This feed was built by the Jenckes Machine Co., Sherbrooke, with whom the Phelps Machine Co., Eastman, Que., formerly Canadian manufacturers of the Dake engine, have been amalgamated.

Mr. W. N. McEachern, wholesale lumber merchant, Toronto, has removed from the Yonge Street Arcade to larger and more convenient premises at No. 1 Toronto Street. He states that the spring trade so far has been more active than for several years, the local demand for both pine and hardwood being good. The scarcity of dry hardwoods has restricted business to some extent, but the new cut will shortly relieve the situation.

THE NEWS.

—McLachlin Bros., of Arnprior, Ont., recently added a lath machine.

—W. J. Chisholm has opened a lumber yard at Edmonton, N. W. T.

—Gillies Bros.' new mill at Braeside, Ont., will shortly commence operations.

—The Rathbun Company last week started up their large mill at Deseronto, Ont.

A large saw mill will be erected at Tusket Wedge, N. S., by J. H. Pothner & Co.

—J. R. Booth, of Ottawa, will have a staff of 1,300 men at work in his mills this season.

McIntosh Bros. are moving their saw mills from Lac La Hache to Quesnelle Forks, B. C.

D. Davidson, of Penetanguishene, Ont., whose lumber yard was destroyed by fire, is rebuilding the tramways.

—Messrs. Gilmour & Hughson, Limited, of Hull, are making general improvements to their mill and putting in "Dutch" ovens.

—Forest fires are said to have done considerable damage this spring along the line of the Kingston and Pembroke Railway.

Some fifty men left Pembroke, Ont., on March 24th, for British Columbia, where they are engaged for lumbering operations.

Wharton's saw mill at New Denver, B. C., is to be refitted with modern machinery, and its capacity increased to 20,000 feet a day.

—McLachlin Bros., of Arnprior, are making a number of improvements to their steam mill, and are increasing the height of the refuse burner.

—It is reported that John Law has purchased the lumber yard and stock of W. J. Mathers, at Neepawa, Man., and will continue the business.

—Mr. John Hendry, president of the British Columbia Mills, Timber and Trading Company, of Vancouver, B. C., has returned from England.

The mill at Lequille, N.S., recently destroyed by fire, is to be rebuilt and fitted as a saw, planing and stave mill, with Mr. G. E. Corbitt as manager.

The Knechtel Furniture Company, of Hanover, Ont., are enlarging their dry kilns and making improvements which will lessen by one-half the time required to dry lumber.

—The Pacific mill at Tacoma, Wash., the largest shingle mill in the world, operated by Metcalf & Ware, was completely destroyed by fire recently. The loss will be about \$100,000.

—The price of rubber, which has been for some time advancing, is now so high that the Canadian rubber factories have resolved upon an advance in prices of rubber shoes and other products.

—Joseph Guilbert, of Windsor Mills, Que., is making extensive additions to his mill and has placed an order with the Jenckes Machine Co., Sherbrooke, for a large quantity of shafting, log handling apparatus, etc.

—A dispatch from Grand Rapids, Mich., states that the furniture manufacturers have adopted resolutions against the two dollar lumber tariff and have sent them to Congressman Smith. They want a reciprocity treaty.

—The largest mahogany log ever received at the timber yards at Liverpool, England, was recently on exhibition in that city. It was 21 feet long, six feet deep (having been squared), and weighed about 15 tons. It grew in Africa.

—Dr. Brodie recently brought to the Department of Forestry in Toronto a sample of a scale pest that is affecting pine trees. It is said to have been discovered only recently, and to have attacked Austrian, Scotch and red pine trees.

The Bronson & Weston Company, of Ottawa, will only operate one of their mills this season. They have completed the placing of the carriers for the disposition of the saw dust, which will probably be sold to the E. B. Eddy Company.

Messrs. Curry Bros. & Bent, Calder & Son and H. J. Crowe have been granted, by the Newfoundland government, the privilege of lumbering in Labrador over a section consisting of 320 square miles of excellent timber land. They will ship to the European markets.

The Rat Portage Lumber Co., of Rat Portage, Ont., are this spring expending in the neighborhood of \$13,000 in special improvements to their mill. These include a large Wickes gang in mill No. 1, and additional machinery and power in the planing mill and sash and door factory.

—An illustration of what can be accomplished by intelligent forestry methods is shown by an engraving in the March issue of the Forester, which shows a German spruce forest, sixty to eighty years old, ready for the axe, with no less than 400 trees and 12,000 cubic feet of solid wood to the acre.

—Mr. J. Fraser Gregory, who has been in the employ of Mr. W. H. Murray, St. John, N. B., for seventeen years, has been admitted as a partner in the business. The new firm will be known as Murray & Gregory, and will deal extensively in spruce and pine, as heretofore, their mills being known as the Marble Cove Mills.

—Knight Bros., of Burke's Falls, Ont., have been compelled to increase the capacity of their dry kiln. A hot air conductor has also been added, which provides for the hot air being blown from the engine room is immediately in rear to the extreme end of the kiln, and a circuit of the kiln is sucked in by the same fan by which it was first emitted, thus doing away with the necessity of heating cold air periodically.

—The Weymouth Free Press tells of some record-breaking logging on the Sissiboo: Mr. Chas. Sprague with a yoke of cattle trailed four trees, equal to 1750 feet of lumber, on a four turn road at Chubb Brook. Samuel Thipault, with one yoke of cattle, trailed 8 trees, equal to 1646 feet of lumber, at Big Dead water. Livingstone Steele & Gaudet, with one pair of small horses, hauled 10 trees on double sled, equal to 1700 feet of lumber, at Second Lake.

—Mr. W. T. James, of Hamilton, Bermuda, writing to the CANADA LUMBERMAN regarding the lumber trade, says: "Southern pitch pine from Georgia and Florida is chiefly used in Bermuda. Our houses are built of stone—no wooden structures. Joists, floors and roofs are of southern pitch pine; white pine is chiefly used for sashes, doors, architraves, mouldings, etc., being chiefly imported ready worked, and glazed sashes and outside blinds are also imported ready made. Considerable spruce lumber is used, such as inch rough boards, scaling of various sizes from 2 x 3 up to 4 x 12, also considerable pine, inch boards and 1 1/2" and 2" planks.

CASUALTIES.

—Jacob Bloom, of Glencoe, Ont., was killed in his own mill last month by being thrown upon a saw.

—A son of Mr. Gagnon, lumber merchant, of Quebec was killed by a pile of deals falling on him.

—By an accident at the sash and door manufactory of W. Baril, Montreal, Athanase Dubois had the bone of his left arm sawn in two at the elbow. A piece of timber which he was feeding to the machine slipped and drove his arm across the saw. Amputation was found necessary.

—David Hollowood, of Clarendon, had his right leg broken while working in Thompson & Avery's mills. His companions were in danger of being struck by a falling tree, so he put up a pike pole to divert its direction. The pole slipped and the tree fell upon him, was the above result.

TRADE NOTES.

The E. R. Burns Saw Company, Toronto, will shortly be succeeded by E. R. Burns & Company.

The Shipton Electric Light and Power Co., of Deseronto, Que., have received a Crocker turbine from the Jenckes Machine Co., Sherbrooke, who are proceeding with the installation of the same, together with the pet stock and draft tube.

Two more 252-inch looms for making felt have been recently added to the plant of Hamelin & Ayers, Lachine Mills, Quebec. This makes six looms of this size now working in their mills.

The Kenneth Mining and Development Co., at Roseland, are making an addition to their equipment in the shape of a 7 x 10 double cylinder hoisting engine, with boiler and all appliances complete, supplied by the Jenckes Machine Co.

The agency for Canada for Dick's Balata belting is now fully controlled by J. S. Young, 15 Hospital Street, Montreal, by appointment of manufacturers. Orders will be attended to at once from a large and varied stock.

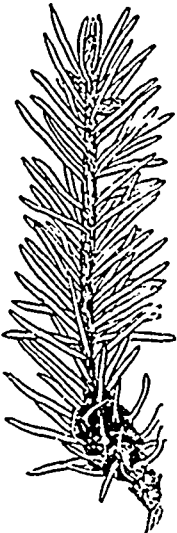
The Electric Reduction Co., Buckingham, Que., are proceeding to develop their water power, and as a first step have placed an order with the Jenckes Machine Co., Sherbrooke, Que., for a pair of their 45" Crocker turbines, to be installed complete, with wheel cases, draft tubes, governor, etc.

The Jenckes Machine Co., Sherbrooke, are furnishing the Canadian Rand Drill Company with a handsome compound Corliss air compressor, weighing some 33 tons, together with a large air receiver and other accompanying apparatus, bringing the total weight up to about 40 tons.

The Moore & White Co., of Philadelphia, manufacturers of clutch pulleys, couplings, etc., have appointed the Lancaster Machine Works, of Lancaster, Ont., as their representatives in Canada, from whom all particulars regarding these justly celebrated friction driving devices may be obtained.

The B. C. Goldfields Co., of Toronto, have recently placed an extensive order with the Jenckes Machine Co. for a ten stamp battery complete, with two vanners, two ore feeders, grizzly, Blake-Marsden crusher, and all the various apparatus making up a complete modern milling plant. The outfit is to be delivered at Nelson, B. C.

The Wm. Hamilton Manufacturing Company, of Peterboro', Ont., are supplying the entire equipment of a mammoth saw mill which the C.P.R. are erecting at Coo Creek, about 60 miles west of McLeod, in the Douglass fir district. The equipment of the mill is of the most modern type, and it will have a capacity of 100,000 feet in ten hours. The plant includes a battery of 6 boilers, bandsaws, etc.



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