

## Preventing Waste in Wood Industries

By-products may be Put to Numerous and Various Uses

Saw-mill waste amounts to about 40 per cent of the original tree. The finished lumber, on the average, represents only from 30 to 35 per cent of the tree. New developments in the utilization of wood waste are being made continually, but it is false economy to handle waste unless the by-product industries can be carried on at a profit. Effective utilization calls for a variety of chemical and mechanical processes which must be adapted to the form, species and quantity of wood waste available at any point. Slabs, edgings and trimmings represent 15 to 17 per cent of the tree. Among the more common uses are fuel, laths, box shooks, small slack coeprage, small wooden articles, kraft and sulphite pulp, excelsior, wood flour, wood wool and producer gas. Sawdust accounts for another 11 per cent, and is used to some extent for fuel, producer gas, briquettes, polishing metals, insulating, packing, bedding in stables, floor sweeping compounds, composition flooring blocks, linoleum, improving clay soils, smoking meat and fish, blasting powders, wood flour, plastics, porous bricks, mixing with mortar and concrete, distillation, ethyl alcohol, oxalic acid and carbundum. Bark amounts to about 10 per cent of the tree. It is usually used for fuel, although hemlock and oak barks are important in the tanning industry. A recent development is the use of spent hemlock bark for mixing to the extent of about 30 per cent with rag stock in the manufacture of roofing felt. Experiments on its use in wall board, indurated pails, conduits and wall paper give promise of success. In the manufacture of special wood products a good deal of wood is lost, during seasoning, by decay due to poor methods of storage, and also by warping and splitting. There is a large waste in converting wood into the desired shape for the finished article. Proper co-ordination with plants making small wooden articles brings about a great economy of material. Findings save us as fuel and to some extent for packing, bedding, drying wet land and manufacturing fibre board. Beechwood shavings are required in large quantity by vinegar factories, but this is another case where specially cut wood is usually used instead of relying on by-product wood from various plants.

—Dr. J. S. Bates.

### Doolan vs. Clancy

Some Business-like Back Verandah  
Comment on Unsantary  
Meat Shops

"DO you get your meat at Clancy's yet, Mrs. Doolan?"  
"Sure I do not, Mrs. Hogan. I happened to go over there one day instead of phoning, and I noticed quite a lot of flies crawling over the meat on the counter."



A VIEW OF THE FAMOUS LONG SAULT RAPIDS WHICH ARE AGAIN SUBJECT OF CONTROVERSY

The Long Sault rapids in the St. Lawrence river have long attracted the envious eyes of power magnates in both Canada and the United States. The St. Lawrence Power Co., a subsidiary of the Aluminum Co. of America, is seeking to obtain certain rights in the South channel of the Sault. It is endeavouring to obtain piecemeal what it failed in 1910 to get in one bite. Their application to the International Waterways Commission met with opposition from the Canadian Government, which is urging for either national or international development of the whole river, so as to prevent the alienation of the country's rights to this valuable national resource.

The Aluminum Co. acknowledged that the proposed works would yield 114,000 horse power in addition to the 76,000 h.p. already developed. They stated that the works would only cost \$350,000 and would increase the output of aluminum 7,000,000 lbs. per annum. If a profit of only five cents per pound were made on this increase of output, it would repay in one year the whole expenditure, namely, \$350,000.

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"Had he no fly screens?"

"Yes, but the screen door at the back was full of holes, and the spring on it was no good at all."

"Did you say anything to them about it?"

"I did so, Mrs. Hogan. When the young man came over to serve me, I pointed to the flies and I told him that not another pound of meat would I buy out of that shop until it was cleaned up."

"And you did right, Mrs. Doolan. If the man doesn't know enough to protect his meat from filth and maybe disease germs carried by flies he should not be in that business."

"Well, Mrs. Hogan, I believe it did some good, for although I have not been in the store since, I noticed that he has a new screen door with springs on it."

"Good for you, Maggie Doolan. If the rest of us women would speak up whenever they notice dirty conditions in any food store or milk shop, there would soon be a difference."

"Some women would be afraid to say anything."

"That is so; but they might drop an anonymous letter in the box, or bring the matter up at the Women's Club."—*Winnipeg Health Bulletin.*

### STREAM POLLUTION SERIOUS

The Hagar Strawboard and Paper Co., of Xenia, Ohio, was recently fined \$100 and costs for allowing refuse liquors from its paper mills to enter Massie creek, killing large numbers of fish. The company claimed that the liquors entered the creek accidentally. Pollution of streams is a serious matter.

### HOW TO MAKE JELLY

Fruit Jellies May Be Put Away  
Now and Boiled Down Later

FRUITS to be used should be sound, just ripe or slightly under ripe, and gathered but a short time. Wash them, remove stems and cut large fruits into pieces. With juicy fruits, add just enough water to prevent burning while cooking. In using fruits which are not juicy, add water until two-thirds of the fruit is covered. Cook slowly until the fruits are soft. Strain through a bag made of flannel or two thicknesses of cheesecloth or similar material.

Instead of sugar use  $\frac{3}{4}$  cup corn syrup to 1 cup of fruit juice. Boil the jelly to one-third its volume and add the corn syrup. Boil rapidly. The jelly point is reached when two drops run together and fall as one from the side of the spoon. Skim the juice, pour into sterilized glasses and cool as quickly as possible. Seal with layer of paraffin and a cover of metal or paper.

Fruit juices may be canned now and made into jelly when it is more convenient and cooler and the supply of sugar makes it possible. Boil sugar and juice for five minutes. Pour into sterilized bottles or jars. Pour into hot-water bath, with the water reaching to the neck of the containers. Allow to simmer 20 to 30 minutes. Seal air-tight and carefully label each container.

A whale meat cannery on the coast of British Columbia is putting up 500 cases of whale meat per day.

## Factors in Production

### 10. After-harvest Cultivation

Adequate cultivation is just as essential for the production of maximum crops as is the application of manure. In fact, many farmers assert the plenty of intelligent tillage is almost equal to a coat of manure. Such statements do not detract from the value of manures or other fertilizers but they serve, in some measure, to bring into relief, the need for maintaining the soil in the best possible tilth. The proper time to commence tillage is immediately after the crop has been removed. If the soil is infested with weeds, shallow cultivation, either with a gang-plough or a disc harrow immediately after harvest, will cause the germination of the weed seeds. Subsequent cultivation will kill these young plants and, if the ploughing has been done early enough it may be possible to effect the germination of a second growth of weed seeds before the final "ridging-up" ploughing is done late in the fall. This is one of the most effective means of combating such weeds as with oats and mustard.

Where the land is comparatively free from weeds some advocates of after-harvest cultivation favor deeper ploughing, for the purpose of retaining more moisture from the autumn rains. This is a matter of experience and the individual farmer should experiment and decide for himself which method is most suitable to the needs of his soil.

The final ploughing in the autumn should leave the land ridged, so that frost action will pulverize it thoroughly. In this way a fine surface mulch is formed during the winter, which dries out quickly in the spring at the same time it forms an excellent seed bed and protection for sub-surface moisture.

Scarcity of labour may make this process difficult, if not impossible, on many farms. But, where such handicaps do not exist, every effort should be made to practice after-harvest cultivation. It is a factor of prime importance in increasing production next year.—A. D.

### USEFUL HINTS ON CANNING BEETS

Use only small beets for canning. Wash, scrubbing if necessary, and get very clean. Cut off all but an inch of leaf stems. Grade, and blanch 15 minutes. Cold dip and scrape off skin and stems. Beets averaging 1 inch in diameter may be packed whole, but larger ones may be cut in convenient size for packing.

Add 1 level teaspoonful of salt to each quart jar, and cover the pails with boiling water. Put on a new rubber and the top, dipping them both in hot water just before placing. Add just the top ball or screw on the top with thumb and little finger.

Sterilize 90 minutes in hot water bath, or 60 minutes at 5 to 10 pounds steam pressure. Remove from sterilizer, seal tight and cool.