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MANUFACTURE OF TURPENTINE.

The great advance in the price of Turpentine—some six hundred per cent.—arising through the war in the neighboring States, from the seceded portions of which the main supply has heretofore been obtained, has led to many enquiries as to its production and best mode of manufacture from the turpentine pines of Canada.

In answer to some queries on this subject, a respected correspondent writes:—"I am not aware that turpentine is made in Canada, but, if it is, it must be either from our Larch (*Larix Americana*), called the Tamarack, or from the Red pine (*Pinus resinosa*), often called improperly Norway pine, or from the Pitch pine (*Pinus rigida*). I believe our common pine (*Pinus strobus*), of which the timber is so valuable, has little resin or turpentine in it. \* \* \* The Balsam fir—of which the well-known Canada Balsam is the product corresponding to turpentine—is common in the Newmarket district, and in various parts of Canada; but where the Canada Balsam is usually made, I have no information. *Pinus rigida* is found about here, and is very abundant in some parts of the country. *Pinus resinosa* yields the timber known as red pine, and abounds in the north-west, I believe."

Gray, an American author, in his Manual of Botany, also speaks of *Pitch Pine* as being saturated with resin—another variety sometimes called Yellow Pine furnishing much less resinous timber; that the *Red Pine* is usually less resinous than the Pitch Pine, and that the *White Pine* is nearly free from resin.

The European turpentine is mostly made from the *Scotch Fir*, the American turpentine from the *Pinus Australis*, or "long-leaved pine."

*Canada Balsam* is occasionally sold in the shops as Strasbourg turpentine, and is used in medicine; also by opticians for mounting microscopic objects, and for other purposes. It is largely imported into the United Kingdom—the quantity in 1856 reaching 17,177 lbs.

The most important use made of spirits of turpentine, as described by Chevreuil, is as an ingredient in house-painters' colours—facilitating their application, diminishing the viscosity of the oily

mixture, and allowing the painter greatly to modify the appearance of his work, by varying the degrees of gloss or of dullness, and preventing the appearance of cracks which would otherwise be visible when the work is varnished; but for all common purposes the painters generally now use petroleum naphtha instead, on account of its extreme cheapness as compared with turpentine.

So as to encourage parties to attempt the manufacture of turpentine, tar and resin in Canada, two prizes for each of these articles have been added to the prize list for the next Provincial Exhibition. We hope to see several specimens exhibited, if they can be manufactured here to advantage. There is no danger of the market in Canada being over-supplied, no matter how much may be produced. The trade returns for the Province show that in the year 1859 there were imported for consumption Resin to the value of \$15,571; Pitch and Tar, \$7,670, and Turpentine amounting to \$34,518; the total of these three items alone thus amounting to no less a sum than \$57,759—besides the large quantity entering as manufactured varnishes, and in other forms.

Prior to the war, the State of North Carolina produced annually 800,000 barrels of turpentine. Their mode of procuring the crude, as described in the New American Cyclopædia, is by cutting boxes or pockets in the trees near the ground, with a long, narrow-bladed axe made for the purpose. These boxes hold from one to three pints each, and are formed by giving the axe a downward stroke, the lower lip of the box being horizontal, and the upper arched, while the bottom is from three to four inches below the lower lip. From one to three boxes are made in each tree, according to its size. The sap runs only in warm weather. The boxes are cut from November to March, one man cutting from fifty to a hundred per day. The sap begins to flow freely about the middle of March, and is collected from the boxes by means of a peculiar ladle, and deposited in barrels. The sap soon congeals so as partially to close the cellular tissues of the wood, so that in order to renew the flow, new surface must be exposed once in eight or ten days, which is done by taking off a thin shaving from above the box. The flow of sap will of course commence considerably later here than in the Southern States. A turpentine forest in the South will with proper treatment last fifty years, when the timber is felled and cut up, and roasted in a kiln so as to produce tar, of which pitch is a concentration obtained by boiling.

The stills described as in use in North Carolina differ but little from the ardent spirits stills com-