

public domain and all private lands, annulling at the same time all contracts made for timber on account of private parties prior to the passing of the act. As a large amount of their production consists in deals of from five to seven inches wide, this supply will be cut off, and the cost will be much enhanced in furnishing a large description which can only be found at great distances from the floating streams. It takes a hundred and twenty-five years to grow pine trees of ten inches in diameter in that country.

Russia reserves all the timber on the banks of her streams for four miles back, as a breakwater and reservoir to preserve the country from inundations; yet here her greatest wealth of timber is to be found. but the home and foreign supply must be drawn from beyond that distance. A Russia timber firm in London that owns the timber on a river and its tributaries in that country, which empties into the White Sea, as large as the Ottawa, informed me that they are now reduced to supplying themselves with timber of from six to ten inches in diameter, and that Russia has but little commercial timber available for the English market. Parties in Britain now look upon the north of Europe as pretty well "played out"; but they are quite sure Canada is yet one unbroken forest. One influential journal, the *London Standard*, after ransacking European timber sections and finding the supplies all but exhausted, turns its attention to Canada, and assures the British public that there need be no apprehension of a timber famine, as "we have a supply for the most exacting populations of the earth for centuries"; while we ourselves have calculated our supply as not sufficient for the United States alone for a period of three years. Another journal, the *Building News* of the same city, equally well informed on the subject, sets down our timber territory at

"nine hundred millions of acres, or twelve times the area of Great Britain, all told," and what is puzzling to them is that the supply is so enormous "and yet the material so dear in their market." This is the sort of information furnished the people of Great Britain, who are so deeply interested in the question of the timber supply, by some of their leading journals; but they will, however, wake up to its true position when they find the United States will be forced, at higher prices than are now paid in England, to secure all the timber we have, in order to supply the middle and eastern states, which, in five years' time, will be totally stripped of their pine, and pretty well through with their spruce timber, and will also be forced to compete with them for supplies in the north of Europe, and in India and Japan, which are pointed to by some English writers somewhat better posted on the subject, as sources from which in a few years hence supplies must be drawn.

I understand a meeting of those engaged in the lumber and timber trade in the Provinces of Ontario and Quebec is to take place some time in the fall at Ottawa to try and arrive at some means of curtailing the supplies—a very wise measure.

Yours truly,

J. LITTLE.

Montreal, June 13, 1874.

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#### LUBRICANTS.

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The friction of the parts in machinery frequently absorbs a large percentage of the power employed. Various lubricating materials are used to reduce this source of waste. When polished steel moves on steel, properly oiled, the friction is about one-fourth of its weight; on copper or lead, one-fifth; on brass, one-sixth. Metals have more friction when they move on metals of the same kind than when on different metals. In

wood rubbing upon wood, oil, grease or blacklead, properly applied, reduces the friction two-thirds. Lard, oil, tallow, soap, blacklead, French chalk, and combinations of these substances, are used in different trades.

*Antifriction Grease.*—1. One part of fine blacklead, ground perfectly smooth, with 4 parts of lard. 2. Dissolve about 50 lbs. of soda in 3 or 4 gallons of boiling water, then melt in a copper about 1  $\frac{1}{2}$  cwt. of tallow or palm oil; after it has cooled a little, pour in gradually the soda, stirring it all the while till it cools. 3. For cooling necks of shafts, which may occasionally be found useful where the shafts are not of a proper length, or the bearings faulty; 16 lbs. tallow, dissolved in a vessel; 2  $\frac{1}{4}$  lbs. white sugar of lead. When the tallow is melted, but not boiling, put in the sugar of lead and let it dissolve. Then put in 3 lbs. of black antimony. Keep stirring the whole mass till cold.

*Lubricating Composition for Heavy Axles.*—In a small boiler dissolve from 56 lbs. to 60 lbs. of soda in about 3 gallons of water. In a 60 gallon boiler, melt tallow, and to it add lard oil, each in quantity, according to season. In summer weather, tallow 1 cwt. 3 qrs.; lard oil 1 cwt. 1 qr. In winter, tallow 1 cwt. 1 qr.; lard oil, 1 cwt. 3 qrs. In spring or autumn, tallow, 1 cwt 2 qrs.; lard oil, 1 cwt, 2 qrs. As soon as the mixture boils, put on the fire, and let the mixture cool down gradually, frequently stirring it while cooling. When reduced to blood heat, run it off through a sieve into the solution of soda, stirring it well, to ensure a perfect mixture of the ingredients.

*Anti-attribution Paste.*—Lard, 2  $\frac{1}{2}$  lbs.; camphor, 1 oz.; blacklead,  $\frac{1}{2}$  lb.; rub the camphor in a mortar down into a paste, with a little of the lard; then add the rest of the lard, and the black-lead, and mix thoroughly.

#### A PROSPECTIVE VIEW OF THE TRADE.

The Condition of the Trade in the Immediate Future — Overproduction — Retrospective View—Fair Products for the Fall Trade.

What is to be the condition of the lumber trade in the immediate future, is a problem, the solution of which would be very acceptable just now. While it is a question concerning which there is considerable difference of opinion among manipulators, its final adjustment will be a matter depending almost entirely upon them. Really, the panic of last fall had little to do with creating the present depressed condition of this great trade. It is time to look facts squarely in the face and acknowledge that the present situation is more the result of a steady growth of the habit of overdoing everything among us, until the cause may be summed up now in one simple word—overproduction. Too much lumber is being made to be sold at remunerative prices. A retrospective glance at the trade of this city during the past twenty years, from the time of the first overstock of lumber noticeable, may enable us to draw therefrom some pertinent conclusions regarding the future.

In 1853 the lumber market of Chicago was a very small affair. There were then no railroads making it a large part of their business to carry lumber. Milwaukee and this city were then about on a par as markets. Trade was almost entirely local. Common lumber then sold for \$7 per M. Times were hard, a fact attributable to a failure in the crops of the northwest, particularly in wheat. The extension of the Illinois Central Railroad about 1854, permitting rail shipments to the interior, caused an advance to \$14 in 1855. It continued to improve until 1857, current price being about \$15; very little lumber was then sold by cargo. The business was done more by manufacturers without the aid of the commission dealers. Then came the great pan-