

85 tons added during the year. This margin, under ordinary circumstances, should have left our tonnage at the end of 1883 fully up to the standard of 1881, but our losses were enormous, no less than 40,873 tons of shipping being written off the books of St. John during the year. The result is that the port of St. John, which this time last year had 270,186 tons of shipping on its books, has now but 245,118 tons, a lower figure than we have reached since 1871. This is partly due to the transfer to Liverpool of upwards of 20,000 of St. John shipping, including the whole Moran fleet, which, since the death of Mr. James H. Moran, has been registered in the name of his brother in Liverpool. It is mainly due to the difficulty of building wooden tonnage with profit, the increased cost of building being an element in producing this result.

The following statement shows the tonnage of this port at the end of each year since 1870, inclusive:—

1870.....	214,814
1871.....	226,727
1872.....	248,495
1873.....	247,227
1874.....	263,410
1875.....	270,762
1876.....	259,073
1877.....	270,016
1878.....	270,016
1879.....	251,178
1880.....	275,897
1881.....	270,136
1882.....	245,118

BAND SAWS VS. CIRCULAR SAWS.

The question of the disadvantages of the circular saw over the band saw has recently engaged the attention of the German industrial journals. The objections urged to the circular saw are, that it is very dangerous to the workmen; requires greater power to drive it than any other kind; makes a much wider cut, producing more waste and yielding less product from a given amount of material. The only advantage allowed by these papers to the circular saw is that it costs less than the band saw. The Mechanics' Association of Muchhausen in its yearly report, advises that the circular saw be abolished wherever it is practically possible to do so, and in Germany this is possible in a great majority of cases.

This action towards the circular saw on the part of German mill men is perfectly practicable, and, indeed, a wise measure, in view of the scarcity of timber in that country, and the necessity of economizing its manufacture in every possible way. The band saw certainly possesses great advantages over the circular saw in the saving of raw material, this saving, in the opinion of persons who have used the band saw, amounting to fully twenty per cent. In fine woods, such as walnut, cherry, maple, ash, etc., this is an item worth looking after by our mill men, and it is well worth their while to consider whether the adoption of the band saw for cutting such woods would not be a profitable investment. For the rapid cutting of the coarse and more plentiful timbers, as oak, pine and poplar, the circular saw, of course, will continue to be used, as, with our people, for a long time to come, rapid work, rather than economy of material, will be the great object in lumber manufacturing. —Southern Lumberman.

The Forests of Grand Isle, Vt.

The region of Grand Isle, Vt., is said to have suffered a depletion of half its forest timber in the past 30 years. Hundreds of acres of land have been cleared entirely of heavy timber and reduced to tillage or pasture, and the forests now standing have been thinned out and culled extensively. It is claimed there is hardly a farm that could replace its cedar fence from its own forests, and scarcely one with sufficient to rebuild its dwelling and out-buildings, while on many farms there is no timber for fuel. Little or no timber planting has been done. The island was at one time famous for its magnificent oaks, the stumps of many grand trunks still standing, and there is hardly a pine tree fit for a spar. Every farm once had a sugar orchard, and now there are hardly any that can be worked. In fact, the oak, pine hemlock, tamarack, cedar, and maple are practically exhausted, though at first blush it might seem

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that the forests were quite extensive. The few groves of second-growth cedar are being largely utilized for hop poles, which bring, standing, 2 or 3 cents each, but if left to grow about 20 years or so they would be worth about \$1 each for posts, telegraph poles, or ship knees. —Northwestern Lumberman.

GAS METERS AS HELPS TO FIRES.

In most buildings designed for multiple tenancy, like great apartment houses and the capacious office buildings which comprise so large a part of the business part of a city, it is customary to provide a separate gas meter for each room or suite of rooms. These meters are commonly placed in closets and out of the way corners, and are very apt to be surrounded with much combustible matter. The connections of meters with the gas pipes are usually, if not always, of lead, a metal that is easily fusible, and the solder with which the plates of the meter are joined together yields even more readily to heat. Let a fire break out in a building containing, as many buildings do, a score or more of these fragile fire feeders, and the hot air sweeping in advance of the fire will quickly melt the lead or solder. The outpouring gas fills the building with an explosive atmosphere which hastens the spread of the flames and keeps up an inexhaustible supply of fuel. Such burning as gas jets, sometimes of great size, are to be seen after almost every city fire, when nothing is left of a building but blackened and broken walls. The gas poured into burning buildings through such openings doubtless helps materially to account for the surprising suddenness with which many buildings have been swept by flames, and in all cases the outflow of gas must seriously counteract, if it does not altogether thwart, the efforts of the firemen. The remedy for this great evil is not so easy to point out. It is obvious that where a multitude of meters are to be distributed through a building they should be more securely incased and provided with inflexible connections, or some means should be devised whereby the gas supply shall be automatically shut off whenever the temperature rises so as to imperil the integrity of the meter. There should also be near the outer door and readily accessible to firemen, some means by which the connection of the house with the gas main in the street can be quickly closed. There is clearly an opportunity here for useful and profitable invention.

WOOD PULP.

The Lumberman's Gazette says:—One of the astonishing results of the wood-pulping and paper-making processes, lately introduced, is the conversion of the whole of a sapling pine into paper, without any waste. In Massachusetts, and others of the New England states, there are large growths of these pines, which are too small for box boards, and which will not pay for the cutting, in most localities, when used for firewood. These will average some six or eight inches at the butt, are smooth, and when

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growing in clusters are quite tall. The limbs project in joints around the tree, leaving a space between them of from 12 to 24 inches of perfect stock. These trees are now cut for paper stock, and trunks, limbs, bark and the needle-like leaves are all worked up by mechanical and chemical processes into roofing and other paper and paste board. It is said that the saving of the limbs and the bark of the tree now pays for the whole cost of the wood.

The carpenters of the Northern Pacific railroad are building woodsheds in Idaho in order to have sufficient dry wood for the locomotives. The shed at Sand Point is 200 feet long by 75 feet wide and those at Camp Hope, Cabinet, Gravel Pitt 3, Rock Island, Trout and Beaver creeks are 30 by 150 feet. The wood to fill these sheds is already out.

The Aztecs, before the conquest of Mexico by the Spaniards, recognized the value of trees to a country for the maintenance of moisture and the promotion of irrigation. Prescott, in his history, tells us that their law contained seven penalties against the destruction of the woods, which they deemed necessary to secure the means of maintaining irrigating canals.

The Buffalo Lumber World says:—From the logging camps the news is generally favourable. In some sections an extra good start was secured, and everywhere the beginning was satisfactory. The soft spell of the week before December rather discouraged some, but since that time it has become much colder again and work is progressing rapidly. The profitable condition of lumber manufacturing during the last season encourages the belief that a very large supply of logs will be handled—perhaps larger than ever before, if conditions continue favourable.

Lumber Sale.

Mr. J. M. Irwin's auction sale of lumber at Nassau Mills on Wednesday was very successful, the large quantity offered being readily purchased at satisfactory prices. The competition was keen, there being several buyers from a distance, besides our local builders and farmers, so the auctioneer Mr. C. Stapleton, was kept busy with the bids.

The Timber Trade Journal says:—The Germans appear determined that we shall not be helped by them to ruin our forests. A proposition has been laid before the German Senate to increase the duty on imported unmanufactured wood from 10 to 30 pfennigs per 100 kilogram, and from 15 to 25 pfennigs for sawn wood.

FORTUNATELY Valvular disease of the heart is not very common, its disturbed action may be due to indigestion, liver irregularities &c. A Stomach disturbed with wind, or indigestible food will cause pain and fluttering by crowding on the nerves of the heart. Burdock Blood Bitters will speedily remedy all such difficulties.

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