

THE FINER MANIPULATION OF LUMBER.

To what extent is it profitable to work up lumber at the saw-mill, is a problem which has puzzled the wisest brains of a proverbially wise class of men. From the increased cost of logs which the past few years has developed, it has been no less a problem with manufacturers to throw the least possible quantity into the saw-dust heap and slab pile, than to make the most of the manufactured product, and to utilize to the most advantageous extent the inevitable dross. The question of planing at the saw-mill, of making box shooks, sash, door and blinds, has been well considered and thoroughly experimented with, and while many of the experimenters are still striving to make their earlier ideas upon the subject not only practicable but profitable, by far the greater number have abandoned the project, and sold or thrown away their machinery. The fact has become patent to all, that no profit can be derived from any manipulation of forest products at a point, when, by reason of heavy freights and expenses attaching to its transportation to competing points, the same articles can be produced at those points from lumber transported thither in the rough, at lower rates. For this reason the endeavors to make box shooks, at the saw-mills of the main producing localities, has almost always, if not invariably, proved a failure, and the enterprise abandoned. The profitable dressing or surfacing of lumber at the saw-mill depends largely upon the same question of transportation and competition. It is safe to say that any endeavors to prepare lumber for immediate use, at a majority of the saw-mills of Michigan, would prove unprofitable, because of the many handlings to which the lumber must be subjected before reaching the consumer, who would be loth to purchase a lot of dressed lumber, the edges or surface of which were either broken, indented or bruised, if his choice was extended to such as by reason of but one handling to and from the cars to the yard of the retailer, was nearly or quite in as good condition as when it left the machine. This objection would not apply with equal force to the manufacturer on the Mississippi river and in Wisconsin, who cultivates a trade with the retailer upon the prairies, and can ship the manipulated product to his yard. Neither does it apply to such other localities as cultivate a trade almost directly with the consumer by way of rail transportation, and those who are thus favourably suited find profit in the closest preparation of their stock. To these it is a measure of the greatest profit to work their lumber into flooring, ceiling, siding and moulding; but it is then a question of great doubt, if in a majority of cases it would pay them to enter into competition with the extensive preparations for box-making, which in many large cities, especially manufacturing ones, work up the coarser grades of lumber most profitably, and by reason of personal activity in seeking for and retaining customers among the actual consumers of boxes, are enabled to turn out vast quantities at so small a profit on each, as effectually to cut off all chance for profit on the part of a manufacturer who has transportation to pay, even though his stock be accounted as costing him nothing.

That the waste of a saw-mill is immense, no one can doubt, and it was a realization of this fact which originally led to the abrogation of board lathing, in favor of the piece lath which, fully as good if not better, could be made from a class of timber otherwise fit for the furnace. This also led to the manufacture of four feet pickets, and as well to square pickets, which could be profitably made from slabs, when previously they had been manufactured from lumber. These are all now exclusively made from an otherwise waste material, and while we have seldom or never known a successful experiment in finishing them ready for use at the point of manufacture, except when the mill enjoyed railroad facilities, they have in the rough, usually proved a handsome requisite in connection with the manufacture of lumber.

White and Norway pine do not present the same adaptability to general use, in the smaller manufactures, as do basswood, oak, beech, maple, hickory, black walnut, and other varieties of hardwood, including whitewood and poplar. Basswood can be made into some kinds of

light handles, on account of its toughness, where pine would prove a failure, but no one would make from pine anything which required greater strength than a curtain roller, and it would not require the debris of many mills to fully supply the demands of the market. Board ends and the thicker slabs are, to a large extent, now made available for the manufacture of shingles by means of Spalt shingle machines, and while it will pay any mill of any great extent, to run one of these machines in the utilization of its waste, such as broad ends, thick and meaty slabs, and in saving the sound end of the core which comes from hollow butts, we would not advise anyone whose mill is not convenient to a dense population to depend upon making a profit from working slabs into shingles. On this point it must be admitted that location cuts the principal figure. The consumer on the prairie in many cases wants a cheap shingle, and does not scrutinize sap. The dealers of the West make no difference between a bastard shingle and those cut "rift." With them, a moderate amount of sap on a "A" shingle, does not injure the grade. The eastern market on the other hand is more fastidious.

The Michigan mill man who would send saw or bastard shingles to the eastern market, would probably never repeat the experiment. Many mills have endeavored to work up their debris in the manufacture of pails and tubs, but we think it has been an almost universal experience, that it was not found profitable, and when the works have been continued in operation, it has been through recourse to timber in the log, perhaps after being prepared in cants by the saw mill, but to the utter neglect of the slab pile.

The theory of finer manipulation of the debris at the saw mill is a very good one, but the practice must inevitably depend upon the location of the mill and its facilities for transportation, direct to the consumer, with few or no intermediate handlings. A case in point will be recognized by every manufacturer of sash, doors, blinds, etc., whose manufactory is situated in the midst of heavy saw mill operations, where slabs can be obtained for little or nothing, and pick them at that. The pieces of lumber which enter into the manufacture of blinds and windows are very small, and to the novice it would appear, could easily and cheaply be taken from the large slabs which form the debris of the mills. If, however, there is a manufacturer of sash and blinds, who does not find more profit in buying suitably manufactured lumber for the use of the factory, than he can realize from working up the best of slabs, we have no knowledge of his whereabouts. The item of labor overbalances the cheapness of the stock. Hardwood mills can, to a great extent, work up their slabs into something in connection with the furniture trade, if there is a factory near them, but it is a fact that black walnut ends and strips, of a foot long, and one to two inches wide, are burned by the cord every day, under the boilers of some of the largest furniture manufactories in this city, where black walnut is worth all the way from \$75 to \$200 per thousand feet. It would seem that in such a city as Chicago, with its widely diversified industries, and especially in the furniture and carriage departments, where small pieces are used in large quantities, that it would be good policy to work up every scrap of debris, large enough to make a chair rung or a buggy seat spindle. That such is not the case, is owing to the fact that the labor of making them, and the expense of handling the small debris overcomes the profit, and it is far better and more economical to burn it at once, and cut full sized lumber into the required shape. That a finer manipulation of lumber at the mills would be profitable there can be no doubt, but profit must be sought in making less sawdust, and no slabs. That this is, comparatively speaking, practicable, the practice which exists at many mills, notably those on the lower Mississippi, is abundant evidence.

A Michigan manufacturer visiting a mill at any of the towns on the lower Mississippi, looks in vain for such piles of slabs as he is accustomed to at home. The logs are simply "skimmed" to a face, and the first board is sawed, some of it to no more than three inches wide. The butt slabs are worked into pickets or lath

and the resultant debris is simply an edging, fit only for firewood, but some of these are saved, tied up with a piece of marlin into bundles and sold. It is in this closer manufacture, rather than in the utilization of the waste into smaller articles, that the finer manipulation question is to find its practical solution.—*Northwestern Lumberman.*

ST. JOHN, N.B., EXPORTS.

The *Daily Telegraph* gives the following list of clearances of lumber laden ships from St. John, N.B., during December, 1881:—

| Date, 1881. | Vessel. | Tons. | Shippers. | Destination. | Deals. | Pine. | Birch. |
|-------------|----------------|--------|-----------------------|-----------------|--------|-------|--------|
| Dec. 2 | H. N. Hart | 1,460 | Alex. Gibson | London | 1,186 | | 274 |
| " 3 | Maori | 656 | " | London | 586 | | 70 |
| " 3 | Avonmore | 1,386 | " | London | 1,212 | | 174 |
| " 5 | John Campbell | 728 | " | " | 610 | | 118 |
| " 8 | Andrew Johnson | 2,005 | W. M. Mackay | " | 1,480 | | 525 |
| " 9 | Bertie Bigelow | 1,142 | S. Schofield | " | 107 | | 1,035 |
| " 14 | Frank Stafford | 1,109 | Alex. Gibson | " | 980 | | 129 |
| " 19 | Annie Stafford | 1,296 | " | " | 1,150 | | 146 |
| " 23 | Livingstone | 640 | R. A. & J. Stewart | London | 525 | | 115 |
| " 23 | Rialto | 1,491 | Guy, Bevan & Co. | Marseilles | 1,470 | | 21 |
| " 24 | Arabella | 1,116 | Alex. Gibson | Liverpool | 905 | | 211 |
| " 27 | Magdala | 575 | Carvill, McKean & Co. | Bristol Channel | 249 | | 326 |
| " 29 | Autwerp | 573 | " | Dublin | 467 | | 106 |
| | | 13,913 | | | 10,746 | | 3,167 |

SHIPPERS.

The following is a statement of the individual shipments from St. John in 1881:—

| Shippers. | No. of Vessels. | Deals, etc. | Pine. | Birch. |
|-----------------------|-----------------|-------------|-------|--------|
| Alex. Gibson | 92 | 80,234,000 | | |
| R. A. & J. Stewart | 70 | 49,764,000 | | |
| Carvill, McKean & Co. | 60 | 23,891,000 | | |
| W. M. Mackay | 21 | 19,738,000 | 485 | 2,574 |
| Guy, Bevan & Co. | 34 | 19,722,000 | | 188 |
| S. Schofield | 10 | 3,498,000 | 1,062 | 1,512 |
| McLachlan & Wilson | 3 | 671,000 | | 852 |
| Sundry parties | 2 | 716,000 | | |
| Totals | 282 | 203,232,000 | 1,547 | 5,126 |

The following is a summary of the destination of shipments from St. John during the year 1881:—

| Destination. | Deals, etc. | Pine. | Birch. |
|--------------------------|-------------|-------|--------|
| Liverpool | 69,199,000 | 1,485 | 3,906 |
| London | 24,686,000 | | |
| Bristol Channel | 27,011,000 | 25 | 6 |
| Clyde | 7,763,000 | | |
| Ireland | 42,251,000 | 37 | 19 |
| Other ports in the U. K. | 8,023,000 | | 1,008 |
| Continent, etc. | 24,399,000 | | 188 |
| Total | 203,232,000 | 1,548 | 5,126 |

UNITED STATES TIMBER LANDS.

Of the twenty-six states east of the Rocky Mountains only four—Maine, Michigan, Minnesota and Wisconsin—are now able to furnish supplies beyond what they themselves need. It is a remarkable fact, however, that nearly every state in the Union exports timber. Maine is so far denuded of what once were thought inexhaustible supplies, and the mills are being stocked to a large extent with logs cut from saplings of only six and eight inches in diameter. Much of the timber so recklessly destroyed is used, not to supply its own needs, but to ship into neighboring states and abroad. Ohio forests of walnut have almost all disappeared. There have now been cleared upwards of 10,000,000 acres of this valuable timber, which it would take half a century to restore. Fire, insects and the axe have almost entirely denuded New York of its timber. The northern sections of Michigan and Wisconsin are well supplied with pine, better perhaps than any other states in the Union, but it is thought that the timber will not last eight years longer.

Lumbermen have now to seek the head waters of the tributaries. No reliance can be placed on Canadian supplies. From the Province of Manitoba to the Gulf of St. Lawrence there is not as much spruce, pine, hemlock, ash, oak, elm and other commercial woods as would supply the present consumption of the United States for three years.

All the accessible pineries have been run over for salable timber, and some of the Canadian lumberers have trespassed upon our northwestern territories in their efforts to secure board wood timber to supply the English demand. The value of the annual product of our forests is said to be near \$1,000,000,000. A very large proportion of this is obtained in a legitimate way, but millions—billions, in fact—of feet of splendid timber are annually stolen. The trade in this stolen timber in Northwestern Florida is immense, and gives employment to thousands of men. Timber stealing is not confined to Southern States. In the north and west some of these timber thieves buy government land at settlers' rates, and after they have cut and sold the timber allow it to go back to the government in default of taxes; thus not only swindling and robbing the government, but preventing actual settlers from getting possession of the land. Others evade the law by getting the Indians to cut the timber from government lands, and have them haul it to safe places beyond the jurisdiction of the government, when they buy it, paying only the price of cutting it. Probably not less than 30,000,000 people in the United States are warmed by wood fuel, consuming annually about 100,000,000 cords. In 1871 Chicago alone consumed the wood taken from 10,000 acres of forest land. Steamboats, railroads, etc., consume in the same way about 35,000,000 cords. The railroads consume an enormous amount of wood for ties, bridges, fences, etc. The amount of wood consumed by mechanical industries is very large. People may realize to some extent how large the amount must be by simply taking a look at the objects before their eyes in their houses, when they will observe how very few are the articles that are not wholly or in part constructed of wood.—*Ex.*

PROMOTING FOREST CULTURE.

A committee consisting of citizens of Medford, Stoneham, Winchester, Maldon and Melrose, Mass., has been formed for the purpose of taking executive action to promote timber in the old commonwealth. It is assumed that areas in the state, like Middlesex Fells, are more than for anything else fit for growing forests, and that such areas, consisting of land, ponds and marshes, can, and should be devoted to this purpose. Such tracts should be converted into public domains for the reproduction of forests. In furtherance of the plan the committee recommends that the state legislature be petitioned to pass an act for the reproduction of forests. The first section of the proposed act has been drawn by the committee, and reads as follows:—

"Where any town, by a vote in a legally called town meeting, or any city, by its mayor, aldermen and common council, shall resolve that any portion of the territory of said town or city ought to be devoted to the preservation, reproduction and culture of forest trees, for the sake of timber, or for the preservation of the water supply, and its appropriation for the purchase of the same, together with donations for that purpose, shall equal the assessed value of all the real estate included in it, said tract shall become a public domain, subject to the regulations hereinafter proscribed."

It will be seen that the preservation of ponds and water courses by overshadowing timber is a part of the committee's plan.

The *London Timber Trades Journal* of Dec. 24th, says that the steamers now are mostly in, and when they come to be summarized will be found to exceed in tonnage and size any that have previously entered the docks timber laden. Amongst the biggest were the *Wheatfield*, *Barcelona*, and *Ariona*, from Quebec; and the *Win. Dickenson*, from St. John. This latter was the largest by some 300 tons, and turned out over 700 standards of spruce deals.