

**CAPACITY OF PORTABLE SAW MILLS.**

In the Wood-Worker E. L. Mason tells of an 8-h.p. mill turning out from 4,000 to 6,000 feet per day with two men, a sawyer and fireman, the sawyer turning and placing his own logs and the fireman doing the off-bearing. Concerning this a correspondent says: Mr. Mason may have been informed by some one that the mill in question did this amount of work, and believed every word of it. We often hear of how much lumber a certain mill can cut in a day. No matter what owner or sawyer you may ask the question, he will undoubtedly give you his best day's run, never referring to the poor ones. But under the most favorable circumstances, with selected logs, etc., there is not a sawyer (Mr. Mason included) who would undertake to do this amount of work with an 8-h.p. engine and one man to assist him.

I have spoken to several sawyers about this, and they all think Mr. Mason should cut one cipher from his figures; they could believe the rest. If Mr. Mason's sawyer can do what he claims, I am willing to send a certified check to the editor of this paper, for any reasonable amount, he duplicating it, for all mill men in this section are willing to take all bets of this kind at any time. We will allow his expenses to New Jersey from anywhere. He can travel in a pullman and bring his valet with him, and live retired if he can make good his claims.

How much lumber to each h.p. will a circular saw mill cut? This is a question often asked mill men and the manufacturers of saw mills. The manufacturer will generally tell you a 10-h.p. engine ought to saw from 3,000 to 5,000 feet per day. Mills from 30 to 40-h.p. ought to run 1,000 feet to each h.p., and mills of larger power ought to run more than 1,000 feet to each h.p., as the friction is proportionately less in large mills than in small ones. The power required to keep up the momentum of a small mill, we will say, for instance, 10-h.p., and that required for one of 20-h.p., would be in proportion to their size and weight, but the leverage or friction of the saw while in the log would be nearly the same on each mill while running at the same speed, and while the larger mill would stand additional feed, the advantage would be all in the large one's favor. The 20-h.p. mill should cut twice the amount of lumber per day as a 10-h.p. mill will cut. But this rule of proportion dare not be carried beyond a certain limit, the reason being that the 10-h.p. mill is altogether too small for saw mill purposes and will not stand enough feed in large logs, or even medium ones, to keep from heating the saw, causing loss of time and very often poor lumber.

I refer only to the capacity of mills without edgers, etc., where the sawyer is obliged to cut everything to size, and not simply take off the slabs, the edger and resaws doing the rest. There is one point the manufacturer overlooks, and that is, how much longer time does it take to place and turn a log on a 20-h.p. mill than to do the same labor on a mill of 30 or 40-h.p.? The labor is one and the same, no matter how great or small your power may be, where the labor is done by hand. The time

consumed in placing logs on mill, turning, gidding back and setting out for the next cut far exceeds the time saw is in the log, which is the only time much power is needed.

As an illustration, the other day we placed and cut a 12-foot log which cut 172 feet of lumber. The saw was in the log 139 seconds out of 12 minutes' total time consumed. Taking only the time the saw was in the log, this engine of 20-h.p. cut 1,237 feet per second, or 44,532 feet for ten hours' work. Taking total time consumed (12 minutes), would bring this down to 8,600 feet for ten hours. Now, if a 40-h. p. mill would stand twice the amount of feed, we would save one-half of 139 seconds, or 69½ seconds, or about one hours' work per day, which would mean, with the larger mill, about 900 feet more lumber. This log cut easily. I do not wish to convey the impression that our mill would cut 8,600 feet each day, though it

would it all logs were alike and sawed into the same sizes, no doubt. Other observations taken on this subject will be continued in next issue.

**CONTRIBUTIONS INVITED.**

The publishers of this journal will be glad to receive at all times contributions on any subjects affecting the lumber trade, such as the method of operating saw and planing mills, arrangement of machinery, best method of piling lumber, or any other practical question of interest. Such contributions will be appreciated and will assist in making the journal of greater value to its subscribers.

The will of the late Alexander Lumsden, ex-M. L. A., lumberman and steamboat owner, of Ottawa, has been probated. The value of the estate is placed at \$935,042. It is made up as follows: Ontario real estate, \$41,175; personal estate, \$484,918.44; Quebec real estate, \$408,947.26.

**IMPORTS OF FOREST PRODUCTS**

The following table shows the value of the products of the forest imported free of duty into Canada from the United States during the months of March, April, May, June, July and August, 1904. The table is compiled from the unrevised monthly statements of imports and exports issued by the Department of Trade and Commerce:

Class of Timber.	March. Value.	April. Value.	May. Value.	June. Value.	July. Value.	August. Value.
Sawed or split boards, planks, deals, &c.	\$207,405	\$260,904	\$236,800	\$388,904	\$207,681	\$300,349
Logs and round unmanufactured timber.	29,804	11,062	17,885	84,487	46,185	58,376
Timber, hewn or sawed, square or sided	6,489	29,977	11,705	46,005	25,019	42,706
Cherry, chestnut, hickory & white wood	45,861	42,633	55,501	48,625	35,482	33,258
Oak	122,823	137,252	125,926	164,382	129,177	107,143
Pitch pine	14,887	19,562	29,745	69,401	7,995	10,387
Mahogany	4,342	15,259	5,885	6,840	1,480	2,528
White ash	15,279	9,770	14,469	10,155	4,330	8,948
Walnut	2,855	9,259	4,161	4,616	1,904	4,290
Spanish cedar	322	313	317	.....	.....	.....
African teak	1,498	316	139	586	593	1,730
Pine and spruce clapboards	1,651	747	361	18	1,264	771
Laths	3,335	7,379	4,825	10,139	3,300	1,899
Shingles	1,621	3,058	693	976	1,585	777
Staves	16,502	8,013	15,011	8,465	8,384	9,433
Shovel handles	6,520	2,209	2,668	7,370	2,178	3,054
Felloe of hickory, rough sawn to shape	1,936	2,560	4,412	2,834	3,380	4,582
Handle, heading, stave and shingle bolts	4,136	1,526	4,291	381	4,404	2,808
Hickory billets	555	79	110	979	597	.....
Hickory for spokes of wheels	390	253	244	70	.....	107
Hickory spks, rough turned	27,279	29,860	18,027	22,144	12,582	12,470
Hubs for wheels, posts, last blocks, etc.	4,219	2,596	3,287	4,138	1,738	3,288
Fence posts and railroad ties	4,346	13,572	8,830	28,693	24,851	28,839
Total	\$524,265	\$601,169	\$625,382	\$910,214	\$584,101	\$638,743

**EXPORTS OF FOREST PRODUCTS**

The following table shows the value of the products of the forest exported from Canada to the United States during the months of March, April, May, June, July and August, 1904. The table is compiled from the unrevised monthly statements of imports and exports issued by the Department of Trade and Commerce:

Class of Timber.	March. Value.	April. Value.	May. Value.	June. Value.	July. Value.	August. Value.
Planks and boards	\$205,830	\$347,191	\$523,991	\$1,572,224	\$747,815	\$1,061,356
Basswood lumber	332	736	425	1,896	352	3,140
Pine deals	237	1,338	7,890	7,508	19,250	39,923
Spruce and other lumber	.....	12,676	7,819	15,227	13,163	33,491
Laths	28,391	29,857	54,830	135,431	1,337	92,163
Pickets	238	341	6,215	18,586	8,259	12,290
Scantling	3,387	1,698	16,230	16,267	14,919	15,754
Shingles	75,478	136,429	153,137	252,697	126,302	134,858
Shooks	1,605	379	6,943	7,250	5,523	4,060
Staves and headings	4,217	4,250	8,382	12,840	19,336	15,332
Telegraph and other posts	1,155	4,924	1,990	6,205	5,300	3,653
Cedar and tamarac posts	.....	1,397	2,262	7,856	1,122	1,543
Shingle bolts	500	138	350	180	21	60
Sleepers and railroad ties	5,816	12,493	14,327	34,499	19,195	15,580
Stave bolts	701	113	163	950	320	519
White pine timber	574	.....	.....	25	255	472
All other square timber	431	597	205	808	209	2,050
Palp wood	117,229	142,204	163,225	277,531	201,862	323,409
Lumber not elsewhere specified	3,480	5,783	14,195	17,808	11,235	9,777
Cedar logs	90	.....	700	4,920	249	480
Elm logs	24	379	70	1,115	1,494	500
Hemlock logs	576	48	15,497	1,743	630	.....
Spruce logs	2,792	2,958	33,221	59,7	3,914	6,237
All other logs	16,662	10,129	30,747	63,399	18,548	37,476
Total	\$469,585	\$716,305	\$1,062,004	\$2,162,599	\$1,280,613	\$1,805,103