

AMONG THE MANUFACTURERS.

MESSRS. GEO. F. HAWORTH & CO., Toronto, in addition to their manufacturing business, have been appointed exclusive agents in Canada for the sale of Hoyt's pure American oak tanned leather belting, known the world over for its superior quality, and which has been used by some of the largest mill owners in Canada for the past thirty years.

MESSRS. J. P. WAGNER & CO., of Toronto, the old established sash and door manufacturing firm, are retiring from business after a successful career of nearly 33 years. They commenced in a very small way and have seen their business increase with the growth of the city until at one time they had in their employ about 100 men. The jobbing business of the firm will be continued by Mr. William Munro.

The Canada Lumber Cutting Machine Co., of Toronto, which was recently organized with a capital stock of \$350,000, are erecting a mill at Belleville, Ont., in which will be placed the lumber cutting machinery the operation of which, in Toronto, was described in these pages in September last. The works will probably be in operation this month, and the products will consist of box veneers, barrel staves, etc. It is the intention of the company to add several other machines when their Belleville works are fairly in operation.

MR. W. W. PARSONS of McLaren's Depot, claims to have had an economical run in saw sharpening since he has been using the Rogers' Saw Filer. He did all the filing for a circular mill and changed saws every four hours (no pointing up between shifts) cutting 2,500,000 feet of lumber, nearly all inch boards, and 9,000 railroad ties, without the use of a file and with the consumption of just fifty cents worth of emery wheel. The machine used was a No. 3 Rogers' saw filer, manufactured by the Hart Emery Wheel Co., Hamilton, and the emery wheel was one of the celebrated Hart's Patent made by the same firm. The average daily output was 25,000 feet.

AMONG the new firms whose advertisement appears in the current issue of THE LUMBERMAN will be found The Polson Iron Works Co., of Toronto, a name already quite familiar to the majority of our readers. The manufactures of this company comprise the "Brown" and "Allan" automatic engines, vertical, hoisting and marine engines, steam yachts and launches, iron tools and boilers of all descriptions, etc. They are also extensive dealers in nearly every kind of second-hand machinery, and extend a welcome to all intending buyers to call either at their works, Esplanade street, or at their show rooms, 38 Yonge street, Toronto, and inspect their stock on hand.

We have pleasure in directing the attention of our lumbermen readers to the advertisement on another page of this issue of Taper Pike Poles, Peevie Stocks and Cant-Hook Handles, manufactured by Mr. Wm. Forsyth, Peterborough, Ont. This gentleman has for the past two or three years been turning out a pike pole which is generally considered by all who have used them superior in every way to anything heretofore introduced to the trade. They are made of the best straight rock maple, turned in a machine specially constructed for the purpose, and measure twelve and thirteen feet long. Anyone doubting the superiority of these poles over others are invited to correspond with the gentlemen whose names are furnished in Mr. Forsyth's advertising square.

AMONG the callers at THE LUMBERMAN office during the past month was Mr. Abner W. Spooner, patentee and manufacturer of Spooner's Copperine, a purely non-lubricous, anti-friction metal, for use by engineers in fitting axle boxes. This gentleman has recently issued a handy pocket catalogue fully setting forth the merits of his invention. He informs us that this new metal is being rapidly introduced into all the leading manufacturing establishments both in Canada and the United States, and from the host of testimonials published it is evident that Copperine is becoming a positive favorite. Saw and planing mill owners, who are not already using this metal, can obtain samples and full particulars by addressing A. W. Spooner, Port Hope, Ont.

MESSRS. F. E. DION & CO., Toronto, manufacturers of patent lap joint star over leather belting, address themselves through these pages to mill owners, manufacturers, and all who use leather belting, proclaiming the excellence of their products and the great variety in which they are made. They speak of their belting as that which will run straight on the pulleys, thoroughly well stretched, will not tear at the lace holes, and which will give entire satisfaction. They manufacture their leather belting from the very best Canadian and American genuine oak-tanned leather, and they are also large dealers in rubber and canvas belting, lace leather and thoma oil, which they say is the only perfect belt dressing made. They ask that any interested will write to them for their price lists and particulars, and for the pamphlet on belting, which they will take great pleasure in sending. The pamphlet alluded to, in addition to other valuable matter relating to the sub-

ject, contains some useful hints to users of belting, in which is shown the per cent. of resistance on different pulleys, etc.; value of rubber and canvas belts as compared with leather; strength of belts; care of belts; directions for calculating the width of belts required for transmitting different amounts of power under different circumstances, and for calculating the amount of power which a belt will transmit; general maxims in regard to belts, etc.

The Sturtevant Patent Progressive Lumber Dry-Kiln, which appears for the first time among our advertisements in this issue, has been extensively introduced throughout the United States. The designer and builder has had an experience of twenty five years in this line, has sold over 5,000 of his Hot Blast Steam Heating Apparatus, and over 40,000 of his blowers for various uses. The ultimate object in all dry-kilns has been to secure a circulation of the heated air. By making the system positive by causing such a circulation by means of a fan, Mr. Sturtevant has made a great stride in the matter of drying lumber. The entire apparatus is so entirely under control that any temperature, humidity or quantity of air may be had at a minutes notice. The apparatus is conveniently placed in a building adjacent to the kiln. No steam pipes are to be found in the latter and the risk from fire is avoided with a consequent reduction in insurance. The same apparatus is employed for the ventilation and heating of buildings. The Houses of Parliament at Ottawa and many public buildings in the United States are furnished with it. By its use a comfortable healthy atmosphere is maintained, and the employees in manufacturing establishments to which it is applied do 15 to 20 per cent. more work. The same party also manufactures exhausting fans for removing chips and shavings from wood working machinery, smoke from forges, fumes and bad air from rooms, and dust from polishing furnaces, for ventilation and the like; forges, lumber trucks, lumber dry-kiln apparatus, steam heating apparatus, etc. It is a constant surprise to many to learn of the thousand and one uses to which a blower is put in every day practice. Catalogues descriptive of the various styles of apparatuses and their applications can be obtained by writing to B. F. Sturtevant, Boston, Mass. U. S.

NEW BRUNSWICK BUDGET.

ST. JOHN, N. B. Feb. 1st, 1888.

To summarize the operations of New Brunswick lumbermen is no easy task. The nearest estimate that can be made is to say that the North Shore operators cut, last season, about 140,000,000 sp. ft., and operators in all other parts of the province about the same quantity. This covers the logs obtained in New Brunswick only. Take in those cut in Quebec and Maine, the total quantity handled in New Brunswick sums up about 430,000,000 sp. ft. The cut this season will not exceed this, if it comes up to it, for while the American millmen hope to increase their output, most of those who are engaged in the trans Atlantic trade are limiting their productions and several heavy chippers have gone out of the business altogether.

The lumber shipments of New Brunswick in 1887 as compared with 1886 are as follows:—

Port	Trans-Atlantic.		Atlantic etc.	
	1887	1886	1887	1886
St. John	124,361,389	6,354	134,123,207	10,625
Miramichi	68,121,629	157	72,276,391	1,784
Dalhousie	18,059,828	925	18,615,319	1,154
Bathurst	13,389,769		16,392,183	
Richibucto	14,751,000		13,117,800	
Sackville	8,555,000		9,421,000	
Shediac	8,322,882		7,209,370	
Cocagne	655,380			
Carleton			1,004,377	
	226,397,077		272,159,647	

The trans-Atlantic exports in 1885 amounted to 291,051,759 feet; in 1884, 331,000,000 feet; in 1883, 404,287,676 feet.

TO THE UNITED STATES.
FROM THE PORT OF ST. JOHN.

	1887	1886
Long lumber	\$ 185,224.33	\$ 107,877.02
Short "	123,755.54	107,416.29
Round lumber	22,357.81	18,932.33
Piling	1,700.00	
American long lumber	1,011,977.85	1,186,393.29
" short "	252,726.35	247,692.91
	\$1,577,988.91	\$1,668,512.07

It will be seen that, while the export of American lumber has lessened, the export of our own product increased about \$100,000. It may be noted here that last year, for the first time, the volume of our exports to the United States exceeded the amount of the trans-Atlantic trade. The export from other portions of the Province to the United States, has also

shown a marked increase, whilst the export to Europe is diminishing.

The operations of our 15 local mills supply a fair criterion for judging of the business of the province. They have sawed about 155,000,000 sp. ft. of lumber. Our six shingle mills have manufactured about 65,000,000 shingles. These figures fall below those of last year, for the reason that the heavy spring freshets shut down all the mills about the harbor. The business in most lines has been only fair, but the shingle business has boomed. Improvements and additions which are now going on, indicate that our millmen expect great things from the coming season. Miller & Woodman's new shingle mill—165 feet long and 80 feet wide—will run eight shinglers, with clapboard and stave machines, and probably a rotary. W. H. Murray will put several stave and clapboard machines into his new edition. D. W. Clark & Son will add planing and dovetailing machines. Edward Gewart & Co. are putting in new boilers, and shingle, stave, clapboard and heading machines. Moses Cowan will add shingle, stave and clapboard machines. As nearly as I can judge, about 15 new mills have been built in the province during the year, or are now building.

G. B. Snowball estimates the stock of woods manufactured and unmanufactured, being wintered, at 25,000,000 sp. ft.—the same as last year.

The wages of men in the woods are higher than they were last season, and the contract figures have correspondingly advanced.

MONEY LOST BY WASTE OF POWER.

Below are some figures by a New England Cotton Mill Engineer of high reputation, and large experience, showing the power it takes to average modern mills with first class shafting, to drive the shafting alone.

Mill No.	Whole Load, H. P.	Shafting alone, H. P.	Per Cent. of Whole.
1	190	51	25.6
2	472	111.5	23.6
3	486	134	27.5
4	677	190	28.1
5	750	174.6	22.7
6	235	54.8	36.1
7	670	262.9	39.2
8	677	182	26.8

These may be taken as a fair showing of the power that is required in many of our best (not worst) mills and factories to drive shafting. It will be seen that the percentage is large—from 22 per cent upwards.

It is unreasonable to think that all that power is consumed by a legitimate amount of friction of bearings and belts. It is out of all reason, and we know of no cause for such a loss of power but tight belts and heavy slippery iron pulleys.

According to the best scientific authority it costs one-horse power to keep in motion one ton of metal or weight; thus every unnecessary 2000 pounds weight on your line shaft, cost you one-horse power. To maintain a horse power costs from \$25 to \$125 per year. Any manufacturer who will take the pains to investigate the unnecessary weight by heavy iron pulleys, too tight belts, etc., will be surprised to find the enormous waste of power caused in this manner—to say nothing about the loss resulting from the shortened life of the entire equipment. In order to avoid this great loss of power use Dodge Wood Separable Pulleys, they are 70 per cent. lighter than iron and are in more perfect balance than is possible for any iron pulley to be made. As a material for pulleys wood is better than iron from the fact that it holds a belt much better. Most good mechanics are aware of this fact, but it may not be generally known how great is the difference, and for the benefit of our readers we give the results of two tests made and published by two of the most eminent mechanical authorities:—

Portion of circumference engaged by belt.	Rel. value of leather belt.		Portion of circumference engaged by belt.	Rel. value of leather belt.	
	On Wooden Pulleys.	On Iron Pulleys.		On Wooden Pulleys.	On Iron Pulleys.
.20	1.80	1.42	.20	1.90	1.40
.30	2.45	1.69	.30	2.40	1.70
.40	3.25	2.02	.40	3.30	2.00
.50	4.35	2.41	.50	4.40	2.40
.60	5.85	2.87	.60	5.90	2.90
.70	7.90	3.43	.70	7.90	3.40

Source.—Appleton's Encyclopedia, Haswell, Engineers' and Mechanics' Pocket Book.

A Dodge Patent Wood Pulley is better than iron from the fact that it can be made very much lighter and thus save weight on the line shaft and bearings, thereby saving in expense from a saving in friction.

The advantages of the separable pulley are very apparent. By its use the necessity of taking down shafting already up for the purpose of putting on additional pulleys when needed,