

DESTRUCTIVE FOREST FIRES.

The early part of this month must be marked as especially destructive to the lumbering interests of the land, on account of destructive forest fires, which raged in New York and Pennsylvania. Fanned by heavy gales, the fire assumed gigantic proportions for several days, destroying timber, farms and whole villages. Reports from the coal mining town of Arnot, Pa., state that about a score of dwellings and mining stores were burned on May 2. They were ignited by forest fires raging in all that section. At Scranton the barrel mill, press house, and corning mill of the Moosic Powder Company blew up, and the soda grinding and pulverizing mills were fired and burned. The mills were ignited from the forest fires. The company had been fighting the conflagration for several days. One employe was burned to a crisp in the wash house. Near Ashland, Pa., extensive fires were raging, and the Ashland fire department had been ordered in readiness for service at the state miner's hospital. The workmen had to fight the flames near the building. The loss to timber tracts was very large. A heavy windstorm visited Northumberland county, Pa., at the same time, and fanned to increased fury, the forest fires. The works of Charles Woods, and 5,000 cords of charcoal were destroyed. The fires also ignited the Culm bank at the Mine Hill Gap colliery. The mine was at one time in danger, and 3,000 men were likely to be thrown out of employment.

The town of Thompson, in Tioga county, Pa., was wholly destroyed; seventeen houses were burned in Orwell. The loss of valuable lumber is immense. Many saw mills, with vast amounts of lumber already made, have been swept away. For long stretches of miles the mountains were on fire. The town of Brisbin was totally destroyed. The fires extended into New York, and in the counties of Tioga, and Montgomery. They also extended into New Jersey. Ralph Bagaley, president of the Arthur Lumber Company, of Pittsburg, on returning from the scene of the conflagration in Elk County, on May 5th, reported the devastation great. He estimated the loss in Elk County alone, at over \$1,000,000. The heaviest losers are the mill owners. Hall & Kaull, at Pine Run, \$50,000, and Dr. L. M. Otto, of Williamsport, \$60,000. The mill of Wm. Goetz, at Swissmount, was entirely destroyed, together with a number of buildings, and a large stock of lumber. Near Emporium, Pa., over 50,000 acres of timbered land was laid waste, and houses and barns were burned to the ground. Near Ashland, Pa., the forest fires destroyed fifty square miles of timber. In the vicinity of Deposit, the fires destroyed nearly all the timber left in this part of the Delaware valley. The dwelling, barns, and saw mill of Stowell Cannon, on Rood's Creek, the dwelling and barn of Jerry Schriver, on the Dry Pond, and the dwelling house belonging to B. E. Hadley, on the mountain, southeast of the town, are reported to have been destroyed.

White Haven, Pa., and the neighboring hills caught fire, and for a time the town was in danger, owing to the strong wind. At California, a lumbering town near White Haven, a fierce fire started, and 11 houses occupied by the men engaged in lumbering, were burned. Two bridges on the Bear Creek branch of the Lehigh valley were destroyed; also the stables of Albert Lewis & Co., lumber contractors; 11 houses also perished. In this fire a large quantity of valuable timber was destroyed. The total loss is estimated at \$50,000. Washington, N. J., telegrams said that an extensive conflagration was raging in the Blue Mountains, thirty-five miles from here. The wind carried the smoke in dense clouds over Warren County. At five o'clock p. m., May 2, it became completely dark, and a smoky pall, which was almost suffocating, hung over the town. A large tract of valuable woodlands burned about three miles from Mattawa, N. J., threatening a number of residences. Farmers were able to stop the progress of the flames.

The mountains north and west of the Shawangunks and Catskills, burned, and the flames were fanned into fury by a heavy gale blowing at the time. Near Freshold, N. J., over 1,000 acres of timber land burned. Of the village of

Gilman's depot, N. Y., nothing remained but smouldering ruins.

These are only a few of the disasters of which we received the news. As usual, nobody knows how the fire originated, and although these wholesale forest destructions recur every year, the idea of any preventive measure seldom seems to enter the minds of the people. Carelessness and ignorance are, beyond doubt, the all important factors in the firing of forests, as well as of houses and other property, and it does seem high time that something be done for their prevention. The quantity of timber destroyed in this way, has perhaps, never been estimated with anything like care, but the loss amounts to millions of dollars annually, certainly high enough to make it worth while to adopt some kind of preventive measures. The matter is serious enough to admit of careful investigation. To allow forest fires to burn until all the available timber is consumed, or until a rain sets in, is a rather expensive way of dealing with the question. It is no use to fold the hands and ask in despair "What can be done?" But let us be up and stimulate the inventive genius of the country into activity, by letting the public know that the want for some such thing is felt and appreciated, and that any invention or discovery in this matter, will find a ready market and pay well the inventor.—*Lumber World.*

IMPORTS AND EXPORTS OF THE LUMBER INDUSTRIES.

The statistics of the imports and exports of different branches of industry connected with U.S. forest produce, give the following figures: Wood pulp, for paper, was exported in 1883—1,028,927 pounds, value \$51,075. It is not distinguished among the imports of 1883, but in 1882 was imported 1,320,383 pounds, value \$25,039. Woodenware and house furniture are large exports, reaching \$500,000 and \$2,500,000 respectively for 1883, both relatively new, and rapidly increasing. The range of distribution is great, England and Australia taking considerable shares, but most goes to American countries southward; chairs are favorite exports, especially to South America. Importations of wooden horse furniture, are also large, and from a wide range of sources; Belgium, France, Germany, England, Japan, Italy, etc., mostly specialties in art and fancy, however, rather than as commercial supplies. The value so imported was for the fiscal year 1883 \$1,690,470. The proportion from Canada was \$207,593. The like exports to Canada were \$351,683, and to England and Scotland \$736,793, including woodenwares. Wooden frames and house-building materials, doors, sash and blinds, are a large and increasing export, especially from the Pacific states to Australia. A new and valuable trade in finished articles is taking the place of the undressed lumber export or beginning to do so. The regular export of sawed lumber for the whole country was \$7,835,708 in value for 1883, and of sawed and hewn timber, \$3,557,592, both for the calendar year. Hoops, staves and headings, chiefly to sugar countries, was 4,062,000 in value. No especial change has recently taken place in these exports, although they are largely increased over former years. In 1860 the sawed lumber was \$2,777,919; the timber, \$936,787; the sugar stocks \$2,365,516, etc., proportions from one-third to one-half only of the present exports. There were no finished house-frames in 1870. The importation of sawed lumber is very large and almost wholly from Canada and the British provinces being \$7,582,194 in value for the fiscal year 1883, with \$280,905 in shingles and a small amount, \$24,302, in timber. Only a small value of finer manufactures of wood is brought from Canada, and \$717,760 in value of miscellaneous lumber.—*Lumber World.*

Lake of the Woods.

The *Winnipeg Times* says:—W. W. Banning of the firm of Dick & Banning returned the 2nd of June from a trip to the Lake of the Woods. He says the lumber cut this season has not been nearly so large as the preceding year, but the quality is superior. He thinks, however, there will be sufficient to meet all the demands. He reports the water as being extremely low, and steamboating is done under a very great disadvantage.

SUPERVISOR OF CULLERS' OFFICE.

The following is a comparative statement of Timber, Meats, Bowsprits, Spars, Staves, &c, measured and culled to June 13—

	1882.	1883.	1884.
Waney White Pine..	87,410	231,259	175,498
White Pine.....	82,227	110,120	50,500
Red Pine.....	13,961	21,782	89
Oak.....	261,345	235,628	165,877
Elm.....	66,370	21,607	114,700
Ash.....	29,275	7,006	67,588
Basswood.....
Butternut.....	554	328
Tamarac.....	20	710
Birch & Maple.....	182,300	125,041	174,983
Meats & Bowsprits..	— pcs	— pcs	— pcs
Spars.....	— pcs	— pcs	— pcs
Std. Staves.....	18,911.10	30,911.10	18,622.22
W. I. Staves.....	178,920.22	21,337	68,211.22
Dr. Staves.....	173.29	214.04	0.6212

JAMES PATTON,
Supervisor of Cullers.

DAMS.

In a stream of moderate size, a form of weir has sometimes been adopted resembling the letter V, with apex or point directed up stream. If built upon piles, with a frame timber forming an inclined plane upon the face of the dam, and filled up with gravel surmounted by a mass or boulder stone, well packed in, the dam will be nearly impenetrable by water. The position of the two arms of the V distributes the force of the water in passing over, and as the currents descending from either side tend toward the centre of the stream, the banks are less liable to be washed away. If timber is abundant, the frame instead of having a uniform slope downward on the face of the dam, may be made in a series of steps like a wide stairway, breaking the water into cascades. The piles for such a dam may be placed at right angles with the current, stayed and covered with plank, and made water-tight with sheet piling supported with foot piles. Constructed in other respects like the one last described, a dam of this kind will possess great durability, and admit of no leakage.

An undue accumulation of water above the dam may be remedied by a channel and sluice gate in one of the side walls, by which the surplus water may be drawn off before reaching the crest of the dam. A self-adjusting dam of heavy planks strongly framed together is sometimes stretched across the stream, connected by hinges to the crest of the permanent dam, and held in an upright position by weights passing over wheels on the abutments. In case of a flood the weights give way partially to the increased pressure, and the auxiliary dam is let down toward a horizontal position, allowing the water to pass unobstructed. In place of an appendage of the kind, movable flush boards are often used, being held in place by pins and other supporters along the brink of the dam and tightly fitted to each other. In time of low water the flush boards of important service in obtaining sufficient head. When the stream rises the boards are removed—though the supports may often remain—and the crest of the main dam being below high-water mark, the surplus water escapes freely.—*Saw Mill Gazette.*

Drying Lumber.

A new process for drying lumber is just now attracting attention. It is said to be the best and most effectual and economical method ever practised. No kiln is necessary, although where a shop has one it can be utilized to an advantage. The process has the great advantage of keeping the surface of the lumber moist during the drying; this holds the pores open, obviates all tendency of cracking and leaves the albumen free to perform its functions. In ordinary kiln-drying the albumen is injured or destroyed, and the surface dries first, thus sealing the juices inside, to escape eventually through cracks caused by the uneven expansion of the wood. Some readers may perhaps be surprised to learn that the process consists in surrounding the wood to be dried with common salt; but those who are acquainted with the peculiar power for extracting moisture which salt possesses will not be at all astonished at this novel and ingenious utilization of this power.—*Builders' Journal.*

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The Strongest Timber.

A general impression has existed that slow-grown timber is the strongest, but this opinion does not, it is stated upon highly scientific and reliable authority, stand the test of powerful and practical experiment. There is in London, England, a government establishment for testing the quality and strength of all woods and metals used for government purposes, the chronicles of which are said to be extremely interesting. Among other important things which have been proved there is the fact that fast-grown timber—oak at least—is the strongest and bears the greatest degree of tension. This remarkable fact has also been discovered recently in some of the eastern wood-working establishments, where oak and other fast-grown woods are wrought into furniture, building materials and other commercial shapes that require substantiability and great tension. A prominent stair-builder, who has erected several massive and elegant stairways in the government buildings at Washington, D. C., has informed the writer that timber of a rapid-growing nature is the best for architectural interests he is engaged in.—*Ex.*

Ohio Timber for England.

Persons not familiar with the trade in timber between this country and Europe, says the *Toledo Telegram*, can have little conception of the vast quantity of oak lumber sent abroad for ship building. This section of Ohio, has produced a fine quality of timber for this use, and for several years Canadians have brought gangs of men here to get out timber every winter. They have operated in Henry, DeFiance, Paulding, Van Wert and Putnam counties for 15 years, cutting the finest oaks to be found. The timber is taken to Kingston, Canada, or some other point, and there shipped to the Clyde, and other foreign shipbuilding localities. This trade, in some sections, brings in more money to the people than their crops and often the timber taken from the land is worth more than the land itself. The prospects are that this trade will be quite large the present season, as several roads have large contracts for hauling timber.

Notes About Saws.

The Germans use at the present day among their furniture makers, carpenters and joiners, thirteen different varieties of saws, each one of which has its own peculiar size of teeth, as well as the different relation of the teeth to each other. How important the thin saw blade is, not only as a means to save power, but also as a means to save wood, can be seen from the following: A log of walnut four meters long, and one meter diameter, cut into twenty pieces by the new horizontal saw frame, saves thirty millimeters of wood, when compared with the cutting of the old-fashioned vertical saws. This is equal to a profit of \$9.00 to \$12.00. For Germany, where annually 100,000 cubic meters of this wood is used in the various industries, this would represent a saving of \$35,000 to \$50,000.—*Ex.*

QUEBEC.

The *Chronicle* of June 13 says:—This market has been very quiet. A good raft of white pine, 48 feet square, one-third waney, about 18½ inch, sold at 23 cents. Another raft of 48 feet of good timber was sold at 22½ cents. This raft we understand had 26 cents offered for it when it arrived in 1882. The trade is exceedingly languid, and when the vessels at present in port have cleared off, a very dull season is expected. We hear of sales of oak, elm and ash, but the prices have not transpired. Deals are in good demand, and pine is very scarce.

Rise in the Value of Pine Lands.

Wisconsin pine lands are wonderfully appreciated. A tract of 6,000 acres in Lincoln county, with timber to the amount of 100,000,000 feet, were purchased a few years ago for \$11,000, then resold a year since for \$60,000, and again recently for \$100,000.

Messrs. Seroney & Fraser are building a saw mill on a beautiful island in Lake Nipissing. It will be a very fine structure, fitted up with every modern improvement.