

## THE DESTRUCTION OF FORESTS.

The remark is made by a Texas newspaper that "one of the strongest arguments in favor of preserving forests is to be found in Chinese history. The terrible famine which raged in that country several years ago, was brought about by the destruction of the few forests left standing, thereby rendering it impossible for the soil to retain the little rain that fell from time to time."

Notwithstanding the scientific theory and facts involved, the destruction of trees continues in many sections where this element of protection is largely lacking, without much concerted effort toward reforesting the land, and it is not the manufacture of lumber that relieves the country of timber so much as the reckless slaughter of trees that is made in wooded regions for the purpose of clearing lands, and where the timber is burned up or disposed of wastefully. Since the forests must continue to be drawn upon for lumber supplies to answer to a necessary want universally felt, whatever timber is willfully destroyed and diverted from the channel of lumber manufacture, with no object beyond getting it out of the way, will produce that much shortage in the reserve supply of timber, and the conquest of the saw mills will simply be hastened to an earlier consummation. While it is a fact that trees serve one of nature's offices in permitting moisture to be readily retained in the soil, and are naturally a necessity in many ways, it is still true that so far as the question of lumber goes, the exhaustion of the tree supply of the world would be less felt in the latter direction than in any other. When it comes to a matter of absolute necessity, a substitute could be found for lumber in nearly every line of its use, if not all of them, but the natural advantages to land accruing from forests, can, in no other way, be secured. Hence the proposition of the lumber needs of a country is almost the smallest argument in favor of forestry projects for retimbering localities. One of the best moves that could be made would be to inaugurate a more practical government policy than is now in operation to prevent a wrong use of timber and its reckless destruction, a move fully as important as that land pre-emptors should be required to conform to the tree-planting law; for while in the one case much care, effort and time is required to grow forests, in the other case they are already grown, and it is only necessary to properly husband the supplies. Preventing the destruction of trees to-day is an act performing the same service that age would accomplish, for trees don't grow with the same celerity as garden vegetables. Prevention is better in this case than raising small trees for transplanting.—*Northwestern Lumberman.*

## A STEAMSHIP WITH A CARGO OF SQUARE TIMBER.

The *Timber Trades Journal* says the most novel feature of the present year in regard to the wood carrying trade is probably the arrival here of a large, well-appointed steamship from Pensacola with a complete cargo of pitch pine timber.

The question not unnaturally suggests itself, can vessels of this character be profitably employed in bringing timber in large logs? The *Deepdale*—for so the vessel we refer to is called—belonging to Sunderland, arrived in the Surrey Commercial Docks on Saturday last, after a very protracted voyage from West Florida. Running short of fuel she had to call at Halifax on her homeward voyage, to coal, a proceeding which took her considerably out of her course. It is true that this delay had nothing to do with the description of the cargo she had on board; but, judging from other circumstances, it is evident that, as steamships are at present constructed, timber in large logs will not pay as a freight. Cargoes, as in this case, of vast timber and deals may be carried when a ship of the kind finds herself a timber port with no other freight to load home, and it becomes a question of loading by "stow" or taking what the port offers in the way of merchandise, which was most likely the condition of affairs with regard to the *Deepdale*. But that log timber will become a recognized freight for steamships is, we imagine, a long way from accomplishment yet. We understand this ves-

sel was three weeks loading at Pensacola, working the fore and aft hatches; taking the logs aboard piece by piece, and we can hardly imagine that she could accomplish her task any quicker, for in the Surrey Commercial Docks, where every facility is afforded for quick discharge at the rate of a piece a minute, the authorities expect to take quite a week to empty this vessel's hold. We watched the *Deepdale* discharging as she lay in the middle of Canada Dock, and reckoned that the pieces being hoisted out of the hold by a crane forward and another aft did not occupy much more than the time mentioned, and yet the process appeared tedious. The huge logs raised out of the hold by the cranes were lowered steadily on to the gunwale, and let glide into the water, and first, with a mighty splash, where they disappeared for a short time, the impetus from such a fall carrying them a considerable distance below the surface. If this simple mode of getting clear of the stuff was to take a week or more, it was evident that the task of loading and stowing logs of the kind must have been a protracted affair.

Steamers, like horses, in idleness, eat up the profits by their expensiveness, and on rapidity of taking in and discharging their cargoes depends their ability to compete with sailing ships in carrying deals. To steamers, celerity is almost a vital point, and it is the difficulty of getting hewn timber, in heavy pieces, quickly in and out, that will, we expect, keep this portion of the wood-carrying trade for a long while to come in the hands of sailing ships.

Of course bow and stern ports would make a vast difference in the way of affording better facilities for loading and discharging heavy timber, but, as most steamers are built in watertight compartments, another difficulty would be presented, though for ordinary average timber it would not seem impracticable to get it on board through bow or side ports. Until something is done in this respect, there will always be the same delay in shipping large timber down the hatchway. It is true that a crane will raise a log of a ton weight with just the same facility it will a ton of deals, but when the latter is unloaded from the slings it can be handled with ease, and distributed in the hold quickly, while on the other hand the log is just as much an obstacle when lowered into the cramped space of a steamship's hold as it was on shore.

The *Deepdale*, it is stated, is the largest steamer with a wood freight that has ever entered the Surrey Commercial Docks, and is calculated to have on board nearly 900 standards of timber of one kind and another. The number of logs of pitch pine are reckoned at something like 4,000, while she has for stowage between 2,000 and 3,000 deals, &c. The bulk of her cargo consists, however, of sawn logs of the usual full average; and one thing can be said of her, that, if she has been a long time about it, at any rate she brings a cargo equal to that of three ordinary sailing ships. That her arrival here with pitch pine logs will form a precedent in the establishment of a carrying trade by steamers of large timber we consider very unlikely.

## BOARD OF TRADE RETURNS.

The *Timber Trades Journal* says:—Those who call to mind that at this time last year the Baltic and Swedish ports were still shut up with ice, and that this year many of them have been scarcely closed at all, will not be surprised to learn, from the Board of Trade returns, that the timber importations for last month are nearly double the amount of those of March in 1881. In that month the sum was 96,455 loads, in the month just passed (March) 189,371 loads, which looked as if, beginning so early, we were in the way to have an overstock by the end of the season. The excess in the first three months of 1882 over the same period in 1881 amounts, in fact, to 130,684 loads—rather formidable figures, but by no means alarming or unprecedented, for as recently as 1880 the importation up to the end of March reached the total of 529,694 loads—that is, 193,767 loads more than in 1881, and 65,183 loads more than the first quarter of the present year.

From these comparisons it will be seen that while we are naturally surpassing the fettered trade in foreign timber of last spring, we are,

with every advantage in favor of early importation, following at a modest distance the footsteps of the trade in 1880, with a palpable interval between, which precludes the likelihood of our speedily overtaking it.

We put these little calculations here to show that, "as far as we have got," as Artemus Ward would say, the importation cannot be considered in any degree excessive, and that the timber trade is therefore *prima facie* in a very satisfactory condition.

The following are the figures furnished by the Board of Trade:—

MONTH ENDED 31ST MARCH, 1882.		
Timber (Hewn).	Quantity.	Value.
Russia .....	940	6,032
Sweden and Norway .....	38,410	57,407
Germany .....	3,702	13,231
United States .....	10,969	54,129
British India .....	9,062	124,270
British North America .....	466	1,359
Other Countries .....	29,968	36,638
Total .....	101,413	295,106

Timber (Sawn or Split, Planed or Dressed).		
Russia .....	1,847	4,330
Sweden and Norway .....	51,079	182,704
British North America .....	9,434	26,693
Other Countries .....	25,078	60,547
Total .....	87,958	244,264

Staves (all sizes) .....	4,640	28,800
Mahogany (tone) .....	2,743	34,602
Total of Hewn and Sawn .....	189,371	530,370

THREE MONTHS ENDED 31ST MARCH, 1882.		
Timber (Hewn).	Quantity.	Value.
Russia .....	7,164	51,520
Sweden and Norway .....	60,368	124,223
Germany .....	10,175	31,979
United States .....	24,073	113,837
British India .....	15,476	190,182
British North America .....	972	3,237
Other Countries .....	69,676	102,283
Total .....	237,901	603,271

Timber (Sawn or Split, Planed or Dressed).		
Russia .....	18,621	43,291
Sweden and Norway .....	118,699	311,409
British North America .....	42,003	105,628
Other Countries .....	49,487	160,910
Total .....	228,810	621,138

Staves (all sizes) .....	13,193	84,415
Mahogany (tone) .....	6,474	57,838
Total of Hewn and Sawn .....	404,511	1,214,409

## WOODWORK THAT WILL NOT BURN

In a London paper is published a letter from Mr. F. H. Gossage, who makes some very important statements. He says: "I find that painting woodwork of any kind with several coats of solution of silicate of soda, and finishing off with a mixture of this solution and sufficient common whitening to make it about as thick as ordinary paint, is a most excellent protection against fire. Wood treated in this way will not take fire from mere contact with flame; it requires to be heated till destructive distillation begins. Then, of course, gases are given out which ignite, and the wood is gradually converted into charcoal, but until destructive distillation takes place the coated wood will not support combustion. A few years since I had some screens made like ordinary doors, some prepared as I have described, and some not. They were then placed over a fire of shavings, which was kept constantly renewed. In ten minutes the unprepared screens were blazing away, and so nearly consumed that they had to be supported by an iron bar. The flames continued to lick the prepared screens for 30 minutes before the distillation commenced. After 45 minutes the coated screens were still intact, and able to support themselves, and in an hour, although pierced in many places with holes, they held together, and when the fire was removed they did not continue to burn. This was a splendid success, and I still have the remains of the screens. The experiments were made at my suggestion, for the managers of the Liverpool Philharmonic Society, and the woodwork of their splendid hall at Liverpool was treated in this manner. I am sure a good deal might be done with this simple and inexpensive process to reduce the possibility of fires, especially in public buildings, theatres, etc., for, if the woodwork was thus treated, draperies and scenery would burn away before the heavy timberwork of the structure would take fire."

## "CUTTING THE KEY LOG."

The first thing to be done is to find out where the jam occurred, and then to discover what is called the "key log," that is to say, the log which holds the base of the "jam." An old

experienced "stream driver" is soon on the spot, for the news is soon carried up stream that there is a "jam" below. Every minute is of consequence, as logs are coming down and the "jam" increasing in strength. The "key log" being found, there is a cry for volunteers to cut it. Now, when you consider that there are some hundred big logs of timber forming a dam, and the instant the key log is cut the whole fabric comes rushing down with a crash, you will see that unless the axe-man gets instantly away he is crushed to death. There are usually in a camp plenty of men ready to volunteer: for a man who cuts a key log is looked upon by the rest of the loggers just as a soldier is by his regiment when he has done any act of bravery. The man I saw cut away a log which brought down the whole jam of logs was quite a young fellow, some twenty years of age. He stripped everything save his drawers; a strong rope was placed under his arms and a gang of smart young fellows held the end. The man shook hands with his comrades and quietly walked out on the logs, axe in hand. I do not know how the loggy-road one felt, but I shall never forget my feelings. The man was quietly walking to what very likely might be his death. At any moment the jam might break of its own accord, and also, if he cut the key log, unless he instantly got out of the way, he would be crushed by the falling timber. There was a dead silence while the keen axe was dropped with force and skill upon the pine log. Now the notch was near half through the log, one or two more blows, and a crack was heard. The men got in all the slack of rope that held the axe-man. Like many others, I rushed to help haul away the poor fellow, but to my great joy I saw him safe on the bank, certainly sadly bruised and bleeding from sundry wounds, but safe.—*The Field.*

## A DIFFICULTY OVERCOME.

The Little Quinnesee falls, on the Menominee river, have for years past caused great damage to logs passing over them. The falls have a descent of 75 feet—not perpendicular, but on an angle of 45°—over a rough and ragged ledge. The damage caused to the logs has been variously estimated at from 10 to 20 per cent. The Menominee River Manufacturing Company, during the past five years, has expended upwards of \$8,000 in blasting the ledge and building breakwaters to lessen, if possible, the damage caused to the logs. Nothing that it did, however, seemed to obviate the difficulty. During the past winter the Hon. I. Stephenson conceived the idea of cutting a canal through the solid ledge along the side of the falls. The survey was made, the amount of rock to be excavated ascertained, and the probable cost estimated. The plan seemed feasible, and the board of directors of the above named company authorized Mr. Stephenson to go on and complete the canal. Work was commenced in February, and pushed with such vigor that the undertaking was near completion when the rise of the river prevented further work at present. But the canal, or cut, was so nearly finished that when the cofferdam at the head was removed, which was on April 19, it was found to work like a charm—all logs running in the river passing through the cut without any damage whatever. The cut is about 300 feet in length, 40 feet wide at the entrance, and narrowing down to 20 feet at the terminus. The average depth of the cut is about 10 feet. The cost when completed will be about \$15,000.—*Northwestern Lumberman.*

## THE SUPPLY OF TIMBER.

The *Northwestern Lumberman* says the supply of cedar, while not exhaustless, is happily such as to lead to no well-grounded fear of a scarcity for many years. Vast tracts of cedar lands are to be found contiguous to the Huron shore of Michigan, while no inconsiderable quantity exists in the less settled upper peninsula. The islands of Lake Huron are many of them loaded with it, while those of the Georgian Bay, on which this timber predominates may be numbered by the score. One of these islands is estimated to cut no less than 50,000 telegraph poles and 500,000 railroad ties, besides innumerable posts, and is but one of the smallest islands of the bay, at that. The islands and much of the