

THE "ELDRED MILL, JR."

THIS is the name of a model 50 barrel mill which has been constructed for exhibition purposes by the Geo. T. Smith Middlings Purifier Co., of Jackson, Mich., and which will be in operation at Buffalo during the meeting of the Millers' National Association a few days hence. The following description of this unique production is taken from the Jackson, Mich., *Citizen* of the 23rd ult.:—"The 'Eldred Mill, jr' is 27x23 feet in dimensions and three full stories above a high basement, surmounted by an attractive mansard roof, the top of which is forty-seven feet above the pavement. The framework is made wholly of dressed and polished Georgia pine, bolted together in sections and so ingeniously contrived that every bolt is hidden, yet the structure is as firm and strong as a granite rock. The outer surface is covered with the finest galvanized iron and the roof is of the same, but artistically molded in the mansard style. The iron walls are broken with numerous windows on every story, filled with double sash of cherry wood and heavy plate-glass. The walls are handsomely painted and penciled in exact imitation of red brick with brown stone window trimmings. Inside the iron wall is a sheeting of fire-proof asbestos separating it from the ornamental wood-work of the interior, which is as elaborate and artistic as the finest railway coach, with panels of highly polished cherry, walnut and ash casings, filled in with red oak, white-wood, birch, etc., carved, turned and moulded in the finest style of the cabinet-maker. The doors are of similar construction, the mouldings of the rarest hardwoods, and the floors are laid in narrow strips of hard pine.

"In the arrangement of the machinery space is admirably economized, leaving room for two complete flights of stairs from every floor. In the first or main storey above the basement are located six double roller mills manufactured by the Nordyke & Marmon Co., of Indianapolis, Ind., and the Todds & Stanley Mill Furnishing Co., of St. Louis, Mo. From these the product passes to the basement where it is caught in elevators and carried up to the floors above. On the second floor are three Geo. T. Smith purifiers, two Richmond brandusters and one germ aspirator with dust-collector attached, and in the third storey 12 Geo. T. Smith bolting reels and scalpers. All machines manufactured by the Geo. T. Smith Middlings Purifier Co. are the very best that art can devise. The wheat-cleaning machinery, which is located in the elevator building, consists of one No. 0 Richmond milling separator, one No. 1 Richmond horizontal scourer, one No. 2 Cranson, Huntley & Co. scourer and one Hodge & Howell cockle-machine. The flour-packers and scales are also in the elevator building and consist of two Richmond City Mill Works flour-packers, one flour scale manufactured by the Buffalo Scale Co. and one Fairbanks hopper and scale. The mill and elevator will be driven by a 30-horse-power Kimble engine, manufactured by the Kimble Engine Co., of Comstock, Mich., and which in its way is quite as noticeable as the mill, having neither cylinder, piston-rod, cross-head nor ways. All the machines manufactured by other houses than the purifier Co. were made especially for this mill and are intended to correspond in finish with the machinery built by the Purifier Co. and the mill building. Outside of the mill is the grain elevator referred to above, somewhat similar in size and built on the same general plan, fire-proof, and with storage for 1,500 bushels of wheat. Both buildings are fitted with a great number of incandescent electric lights, which are supplied by the Jenney Electric Light Company, and when in operation will render the building as light as day.

"The mill and elevator are built in sections on which much ingenuity has been expended, and can be taken apart and packed in cars about as rapidly as theatre stage scenery. They are easily transferred on three ordinary freight cars. The total weight of the mill proper is 44,000 pounds. The machinery is now nearly all in place, and after it has been tested the mill will be taken down and shipped to Buffalo, N. Y., about the first of June and there erected on a lot adjacent to the Music Hall, where the National Millers' Association hold their annual session. It will be operated there to show the assembled millers the working of a perfect mill, and if they fail to admire it they must be stoics, without appreciation of the beautiful, for nothing half so fine was exhibited at the Centennial Exposition in Philadelphia in 1876. From Buffalo the model mill will be removed to Cincinnati and erected on the Exposition grounds, where it will remain three months in constant operation, grinding fifty barrels a day and selling the flour in Cincinnati, for which purpose a handsome delivery wagon will be run and an office will be kept open in connection with the mill. Ushers will also be in constant attendance to show visitors through the mill and explain its

points of interest and excellence. The finest lady need have no fear of soiling her clothing, for the model mill will be kept as clean as a parlor. Next season it is Mr. Smith's intention to send this model mill to Paris, France, where it will be exhibited and operated on the same plan as at Cincinnati, and after that it will be taken to South America for a season, and thence to Australia, in order that all the world may see the triumph of American ingenuity in mechanics and industrial art."

THE PROGRESSIVE MANUFACTURER.

IT is surprising as we wander about the country, and visit the thousands of establishments, to notice the vast difference in the manner of conducting business by the different concerns.

Go, for instance, into some old and long-established factory or shop, where the proprietor is well along in years, and has been doing a prosperous business from which he has accumulated a goodly portion of this world's wealth, and possibly laid the foundation for the same prosperity in the world to come. You will generally find him an easy-going, comfortable man who cares little for the rush and bustle of a business life of to-day. He has made his money, and is even now getting a fair living from the plant.

Look about the shop or factory, and you will find the same easy-going, still, plodding style. No new improvements or facilities for turning out work upon the plan of later date. It is the same old shop that it was when its proprietor started in life, and no amount of talk or reasoning could induce him to "fit up" and run the plant with the push and vim of his youthful neighbor.

He is years behind the times, and still plods on, taking everything easy, worrying about nothing, and undisturbed by the vexations of competition, market prices or the numerous other things that keep the younger and more vivacious characters in a constant flurry. This was the plan upon which business was done in the years gone by, where there was less competition, and in consequence more of a demand for the productions in the country, and it was not necessary to watch for every new and approved appliance with which to equip the shop and facilitate production.

Visit another shop in which the proprietors are young and struggling for an existence and patronage.

Here you find everything in the way of modern appliances for the rapid and economical production of goods. Everything is done on the principle of modern Yankeeism. Every one, from the foreman to the apprentice, is rushing around wide awake, and always in a hurry. There is no time to take things easy. Competition in production and prices necessitates that every man do his best, aided by the most approved mechanical appliances that modern science and skill can produce. The proprietors are always busy, full of business, and with no time to take things easy.

This is the plan upon which all business is done to-day. Everything goes with a rush, and in order to stand anywhere, a man must enter and "go-as-you-please," or get left and find himself behind the times, and his business unprofitable and slow-going.

The progressive manufacturer of to-day is the one who keeps up with the times in every respect. Competition caused by the multiplication of production and improved machinery has changed the method necessary to a successful business.

There is another thing very noticeable in these visits. This is the idea that many men have of the necessity of constant addition and necessary repairs. In the grand rush not enough care is taken of the plant itself. Shafting and machinery are put up, and beyond an occasional oiling receive no further attention unless a break or failure to work makes it absolutely necessary.

In every large shop the time of one man whose sole business it is to look after these things will be rapid in the long run in many ways. There are few shops or factories where large, heavy machinery is used but in which too little attention is given to the loss of time and power through neglect of proper attention to the shafting required to run it. This has been partially overcome by modern improvements in boxes and hangers, but we are led to believe from what we have observed that much power is wasted through imperfect adjustment of hangers, and even in many cases the proprietors, aware that something is wrong, are unable to locate the trouble. Oil is poured on to a bearing that has become warped, or out of place, or heats, and is still kept running in this manner, while it would be both a saving of time, power and material to have it put right and kept so.

Help are employed who are incapable of understanding the mechanism they attempt to run; they have no interest beyond the fact that they are turning out work

Something goes wrong, and they twist and yank until disgusted, and then call on the helper to do the necessary repairs. Such things are not in accordance with progressive ideas. Machinery costs money, and requires care and attention to keep in good working order, and the man or concern who will be the most successful will not neglect to respect the health, so to speak, of the machinery that helps to make his business a success.—*Manufacturers' Gazette.*

TRANSMISSION OF POWER BY CABLE.

FOR the first time in America the principle of the cable is used in street railways, applied to the transmission of power to machinery in widely separated parts of a building was tested recently at the Union Steamboat Company's warehouse on Market street, Chicago, with the most satisfactory results. The cable used was a manila rope seven-eighths of an inch thick and 750 feet long. The rope went round the driving wheel and winding sheaves three times, and then was carried 150 feet north on twelve inch pulleys of the same pattern as with the North Side street car cable. There is furnished power to a moving incline, and then was carried 200 feet south and hence eastward seventy-five feet, where it drove a barrel-lift, and then returned to the driving wheel, where it moved a second incline. The slack in the rope was taken up by a sliding wheel on the same principal as in the street car cable. The driving wheels had V-shaped grooves in which the rope was pinched and prevented from slipping. The cable was tested running at the rate of 1,600 feet a minute. It was found that about five-horse power was taken up in driving the machinery when not loaded. The engine is forty-horse power, which gives ample power for the work. T. S. Miller was the inventor of the plan.—*American Engineer.*

PERSONAL.

Wm. Ellis had two fingers cut off in Shure's mill, at Bracebridge, Ont., a few days ago.

Mr. Walter Scott has assumed the management of the new Keewatin flouring mills.

Mr. L. McKinnon has removed from Alton, Ont., to take charge of a roller mill at Lynn, Ont.

Mr. Oluf Tyberg, draughtsman at the Canadian Tool Works, Dundas, Ont., has gone to Philadelphia, Pa.

John Ogilvie, of the Ogilvie Milling Co., Winnipeg, and family, have been paying a visit to British Columbia.

The many friends of Hon. T. B. Pardee, Commissioner of Crown Lands for Ontario, will regret to learn that his health is still very imperfect.

Major McMillan, the well-known Winnipeg miller, has been nominated by the Liberals of Centre Winnipeg as a representative for the Local Legislature.

At a meeting of the Dunfrie Foundry Benefit Society, Galt, Ontario, a resolution of condolence was passed with the family of a late member Mr. John J. Shame.

Mr. Samuel H. Campbell, of Buffalo, N. Y., has reached Dundas, Ont., where he will take the position of foreman of the iron works department of the Cochran mills.

A London paper states that in case Mr. Pardee's health should necessitate his withdrawal from office, his successor will probably be Mr. Gilson, M. P. P., of Hamilton.

Mr. Henry Bracken, miller, of Boston Mill, Ont., has been unanimously selected by the Liberals of Cardwell as their representative in the approaching Parliamentary contest.

A party consisting of Mr. John Goldie, Miss B. Goldie, Alex. Goldie, Galt, Mr. and Mrs. David Goldie and children, Ayr, Ont., left for Great Britain a few days ago.

D. H. Gilbert, Manager of the St. Thomas Car Wheel Company's foundry, has resigned to accept a position in Montreal as superintendent of the Montreal Car Wheel works.

Thomas C. Ide, book-keeper for Messrs. McKee & Warwick, machinists, Petrolia, Ont., is reported to have absconded, taking away with him \$150 belonging to his employers.

Wm. C. Noxon, son of James Noxon, General Manager of the Patterson Bros' works, Woodstock, has received an appointment in the Provincial Treasury Department, Toronto.

Mr. C. M. Palmer, the enterprising publisher of the *Northwestern Miller* has purchased an interest in the *Daily Minneapolis Tribune*. He will still retain the ownership of the *Miller*.

Thomas Hall, of Brantford, Ont., who was at one time foreman of the Waterous Company's works in that city, committed suicide by hanging, on the 24th of May. He was of unsound mind.

Millwright James Sibley, of this city, has engaged with the Stillwell & Bierce Co., of Dayton, Ohio, to assist in the work of overhauling Schweikopf & Matthews' mill on the American side at Niagara Falls.

Mr. C. H. Waterous, the President of the Waterous Engine Works Company, Brantford, and Mrs. Waterous have returned home from an extended tour, covering the winter months, in California and other States.

Mr. John H. Flemming, recently Superintendent of the New York Car Wheel Works, Buffalo, and for many years connected with the Griffin Car Wheel Co., of Detroit, will act as Superintendent of the St. Thomas Car Wheel Works.

Wm. Motley, head millwright in the Ogilvie mill at Winnipeg, was seriously injured on the 17th May. While superintending the erection of a centrifugal separator, the tackle gave way allowing the machine to fall over on him. A rib and collar bone were broken, and he also received serious internal injuries.

Wm. Matley, head millwright at the Ogilvie mill, Winnipeg, while superintending the work of erecting a centrifugal separator, was probably fatally injured by the tackle giving way and allowing the machine to fall over on him. One rib and his collar bone were broken, and he also received serious internal injuries.