

a mouse. When the bell rings the scene changes into one of the greatest confusion, apparently. Buyers clamor for baskets, and before the bell ceases ringing thousands of baskets have changed hands.

The retail market-women rent the stalls in the Market. Their hours of sale are all the day long. They are the chief go-between of market gardener and buyer. They pay the rent for their stalls (each has her name painted above her stall) by the week, and in advance. The price varies, according to position, from 70 cents to \$2.10. There are two other sorts of huckstering. One is carried on by people who buy from the market gardeners vegetables, etc., at the period of the day when they are extremely cheap (for instance, at the close of the market), to sell them when they have risen in value. The other is driven by market-gardeners themselves, who come with empty baskets and buy in the morning from their brethren wherewithal to fill them.

Here a portion of the itinerant greengrocers called hawkers, buy the damaged fruit they hawk at low prices in the quarter of Paris peopled by the laboring classes. There are some 12,000 hawkers daily moving about Paris, who come every morning to the Great Markets for their supplies. They are watched by special inspectors, whose duty it is to see that they do not stop in the streets or loiter in the neighborhood of markets.

BUSINESS AND MANUFACTURING ITEMS.

GLASS IN ILLINOIS.—A correspondent corrects the statement that the manufacture of glass in La Salle was first commenced in 1865. Glass making was first started in La Salle in 1857 by J. P. Colné, who formed a company with \$10,000 capital in less than a week, and the factory was just getting into operation, a melting having been already made, when the financial crash of 1857 extinguished the enterprise. Mr. Colné was the first who brought to public attention the utility of this sand, which abounds in many parts of Illinois. The factory was subsequently bought by parties who are now running it.—A glass factory was built at Bellaire, Ohio, last year, and now a rolling-mill and a nail factory are in process of construction.—A glass factory is talked of at Jackson, Mich.

LUMBER.—The lumber manufacture and traffic is the leading business of Fond du Lac, Wis. There are fourteen steam saw-mills and as many steam shingle mills in operation, running each from two or three to seven or eight saws of various kinds, with twenty to fifty men, besides boys and girls for packing lath and shingles, and turning out a grand total, as estimated, of 85 million of lumber, 225 million of shingles, and 18 million of laths, in a season. The lumber is cut and rafted on the affluents of the Fox and Wolf Rivers, in the north-eastern part of the state, where immense pine forests are intersected in all directions by these natural highways. There are five different kinds of shingle mills in use, three of which were invented on the spot. The hands earn about \$10 a week on common mill and pinery work—alternating between the two, winter and summer—and engineers, head sawyers and filers get \$2.50 a day. A filer in Moore's mill, who works on the eight hour system—eight hours before dinner and eight hours after—earns \$5 a day.—The lumber business of Albany, N. Y., engages some twenty-five considerable firms, one of the largest of which handles thirty millions a year. Ten millions of Michigan lumber are sold there yearly by the agent of the Whitneys of Detroit. Large quantities also come from Canada.—There is a portable steam saw-mill at South Carver, Mass., which like Mahomet can go to the mountain if the mountain won't come to be sawed.—A floating steam planing mill is building at Bangor, Me., through which rough cargoes will pass, coming down the stream, and go on their way rejoicing in smoothed and jointed surfaces.

LEATHER.—Leather, boots and shoes, instead of cotton and woolen, according to the *Boston Commercial Bulletin*, are the leading manufacture of New England. The cotton and woolen manufacture is concentrated at a few points; the leather manufacture is dispersed; and although the number of hands employed in the leather business is smaller than in that of cloth manufacture, the amount paid to its operatives in annual wages is considerably larger. The sales of shoes in Lynn amounted in February to \$1,011,513; in March to \$1,255,454—the largest month's sale ever made in the city. In the manufacture of patent leather, F. S. Merrill, of Roxbury, the largest manufacturer in New England, employs about sixty hands, and has facilities for turning out about 50,000 sides per year, but during the present "dull times" the business has decreased at least one half.—The manufacture of the new leather-splitting machine, by which several hides can be made of one, will soon begin at Newburyport.—The peg factory at Livermore Center, Me., consumes about one cord of white birch per day, and turns out 1,000 quarts of pegs.

WOOLEN.—Burrillville, R. I., comprises ten manufacturing villages, containing twenty woolen mills, with an aggregate of over 100 sets of machinery.—The Tremont and Suffolk Mills, of Lowell, have decided upon a stoppage of half their machinery and the entire cessation of woolen manufacture. Other corporations of Lowell are contemplating similar action.—A flannel mill is to be built on the site of the old "Endicott Mills," near Newport, R. I., four stories high and containing five sets of machinery. It will be finished about Oct. 1st.—A woolen mill is to be built at Oneida, N. Y.—A company has recently built a fine woolen mill at Clinton, Lenawee Co., Mich. It will have six sets of machinery and will go into operation about August 1st, employing eighty hands.—An effort is being made to raise \$30,000 capital for a woolen mill at St. Clair, Mich., to take the place of Nichols' mill, burned last year.—Parties propose to build at Niles, Mich., within

a short time, a woolen mill, a paper mill, and an oil mill.—Stock has been subscribed in part for a new woolen mill at Jackson, Mich., which will cost \$50,000 to \$75,000.—A foundry and a woolen mill are to be started at Bethany, Harrison Co., Mo., this season.—There are now in operation in the States of Illinois, Wisconsin, Indiana, Iowa, Michigan, Minnesota, and Ohio, about 175 woolen mills, more than half of which have been started since 1860, running 350 sets of machinery, and consuming annually about 8,500,000 lbs. of clean wool.—At San Antonio, Texas, a cotton and woolen mill is being organized.

COTTON.—Most of the mills owned by the A. & W. Sprague Manufacturing Company are in full blast. Besides the Augusta purchase and their extensive works in Central Falls and elsewhere, they carry on the Baltic, 75,136 spindles and 1,973 looms; Quidnick (two mills), 26,880 spindles and 654 looms; Arctic, 22,144 spindles and 560 looms; and Natick (four mills), 40,608 spindles and 975 looms—total, 164,768 spindles and 4,162 looms.—The Kalmia Cotton Mills, in South Carolina, have been sold to a new company for \$210,000, subject to a mortgage of \$190,000.—It is supposed that work will soon be resumed on the Taft Cotton Mill, at Taftville, Ct., the owners of which recently failed, and which, if finished, will be the largest cotton mill, it is said, in the world.—A. D. Smith, Woonsocket, R. I., is enlarging his cotton mill by two additions, making the whole building three stories high, with a complement of 10,000 spindles.—A cotton mill is talked of at Millport, Chemung Co., N. Y.

IRON.—It is said that Mr. Bessemer now enjoys from his patents for the conversion of iron into steel, the princely income of \$500,000 a year.—Messrs. Fairbanks, of St. Johnsbury, Vt., the original inventors of the platform scales, although no longer protected by patents, melt up in their manufacture over thirteen tons of iron per day, and shipped from their works, during ten days in April, 2,923 boxes of scales, weighing over 222 tons. They are about occupying a new foundry which is one of the completest in the country.—Notwithstanding the prohibitory law, now so energetically pushed in Massachusetts, about 150 hands are employed at East Bridgewater in the manufacture of gins, which were exported to the cotton states, Brazil, etc., to the amount of \$500,000, last year.—A very heavy compressing machine is building at Poughkeepsie for the Hudson River Peat Company. The metal used in it weighs 200 tons, several of the castings weighing one to seven tons each. It will be driven by an engine of 100 horse-power.—A company has been organized at Albany for the manufacture of Youmans' patent car truck, in which the axles adjust themselves at all times at right angles to the track and radially to the curves.—A new file manufactory is building at Norwich Conn.—Russia sheet-iron works are to be established at Portsmouth, Ohio, which seems in some measure to confirm the reported success of the operation at Youngstown.—The Wrightsville Iron Company, of Columbia, Pa., capital \$80,000, have commenced building their furnace and expect to get to work in October next.—New rolling mills are to be established at Marietta, Ohio, and at Indianapolis, and two furnaces are to be erected at Brazil, Clay Co., Ind.—At Marquette, Mich., five furnaces, a rolling mill, foundry and machine shop, and several other manufactories will soon be in operation. Work has commenced on the new furnace and mill of the Marquette and Pacific Rolling Mill Company, which will employ several hundred hands.—The Ellis Locomotive Works, at Schenectady, N. Y., are now employing 480 men and turning out a finished locomotive every week, having a contract for twelve from the Union Pacific Railroad Company.—It is computed that the whole number of sewing machines is now 750,000, and that the present rate of increase is 200,000 a year.—The U. S. Railroad Screw Spike Company, at Greenpoint, N. Y., perform something like the novel operation of forging screws, which has been introduced in France. The thread is formed between top and bottom swedges, equivalent to a threaded nut cut in halves, under an atmospheric hammer, the bolt being turned between the blows, until the swedges come together.—A company in Bridgeport is manufacturing the submerged force pump, which is fastened in the bottom of the well or cistern, and projects a rigid iron pipe to the surface, which being oscillated by hand at once operates the mechanism and conducts the stream. No packing is used, and no water can stand in the pipe above the surface of the water, to freeze in cold weather.

THE STEAMSHIPS OF THE GREAT LAKES.—The Western Transportation Company will run this season twelve screw steamers of an aggregate tonnage of nearly 10,000 tons between Buffalo, Chicago, Milwaukee and Racine. The Buffalo, Cleveland and Chicago line will run eleven steamers, of about 8,400 tons, between Buffalo, Sheboygan, Milwaukee, Racine and Cleveland. The Buffalo, Cleveland, Toledo and Sandusky line will run thirteen steamers of about 9,800 tons, between Buffalo, Cleveland, Toledo, Sandusky, Detroit and Green Bay. Evans' line will run six steamers, of about 4,000 tons, between Buffalo, Chicago, Milwaukee, Racine and Detroit. Charles W. Ensign will run two new vessels, of 1,200 tons each, between Chicago and Buffalo.

MAINE WATER POWER.—The Kennebec at Augusta has a fall of 15 feet; the Androscoggin at Brunswick has a fall of 50 feet; at Lewiston 64 feet; Emerson's Stream at West Waterville has a fall of 200 feet within five miles. The fall of the water of the Cobbosecontee, at Gardiner, within one mile of the tide-water, is 128 feet; the fall of water in the Vaughan Brook, in Hallowell, within three fourths of a mile of tide-water, is 188 feet.—The citizens of Waterville are endeavoring to raise \$75,000 or \$100,000 for the improvement of the water power at that place, and the inauguration of extensive manufacturing improvements.

CHEESE.—The cheese factories at Otto, Cattaraugus Co., N. Y., are said to be doing an immense business, and others are starting up in the vicinity—among them one at Ellicottville.—A cheese factory 40 by 70 and three stories high is in process of construction at West Brookfield, Mass.

OILS AND CHEMICALS.—The buildings of the Manufacturing Company at Coldwater, Mich., have been completed, and the manufacture of linseed oil and corn and oat meal will soon begin. The enterprise, the second of the kind started in the state, will encourage the cultivation of flax, and it is believed that the neighboring region will send to this mill, during the next season, at least 25,000 bushels of flaxseed.—The Pacific Oil Works, at San Francisco, Cal., are now in full operation. The present machinery can consume about 4,000 bushels of flaxseed per week.—The Golden City Chemical Works, recently erected in San Francisco, cost \$250,000, and can turn out 20,000 lbs. of sulphuric and 3,000 of nitric acid per day.—At Sharpsburg, near Pittsburgh, Pa., three oil refineries are being built, one covering an area of seven acres and a river frontage of 700 feet. Two others will each have a capacity for refining 1,200 barrels of oil per week.—The American oil product during the past six years is estimated at about 11,640,670 barrels, for which there have been sunk 7,930 wells, not more than one tenth of which are now believed to be producing oil. In 1859 the product was 325 barrels.

MISCELLANEOUS.—Shoe strings are little things, but very numerous, and in union find strength, at South Carver, Mass., where seventy hands are employed in one shop, making shoe strings and lacings of cotton, silk and linen, to the value of \$175,000 annually.—The soapstone stoves appear to find increasing favor, as new buildings are now being erected by the manufacturers at Nashua, N. H., who have a capital of \$150,000 invested in the business, and a single order on hand for 7,000 stoves.—Jelly from unfermented apple juice was made at Livermore Falls, Me., to the amount of 16,000 lbs., last season.—A Meriden, Conn., Hat Company has been formed, to make hats by a machine which weaves them whole—capital \$400,000.—Boston and East Boston are to be connected by a suspension bridge that will cost half a million.—A bridge is to be built across the Ohio river at Louisville, Ky., 360 feet long and to cost \$1,500,000.

PRELLER'S PATENT TANNING PROCESS.

In sole leather tanned by Preller's patent the fibrous structure is entirely preserved, and in a condensed state, of great strength and solidity: comparing with oak-tanned leather by weight as 34 to 50, from 100 pounds of green hide, and showing much less thickness than the distended and weighted leather produced by ordinary processes. On tearing, the latter discloses a felted structure, whereas the former shows all its fibers in their original parallel juxtaposition, and by experiment, resists at one fourth of an inch thickness, in constant working, more strain than the best oak-tanned three eighths of an inch thick. The obvious practical advantages of the lessened bulk and greater flexibility need not be suggested. Butts, it may be remarked, become available, from improved flexibility, for purposes to which they were hitherto unsuited, and by paring them a very large even horsehide may be obtained for many useful purposes, especially carriage tops. Another comparative test which is very suggestive, is that of boiling. Ordinary leather attains in this way a woolly texture and becomes brittle, or else becomes converted into a kind of gelatinous mass. Preller's leather, on the contrary, seems to "boil down" to a tougher, denser, and still fibrous condition, resembling horn. Calf leather, it is evident, will realize similar advantages, of which the last that we shall mention is that it can be tanned in sixteen hours; sole leather requiring but 2½ days. Having these effects in view the tendencies of the process may be the better appreciated. It is as follows:

The hides are slightly washed, and then unhaired in the usual manner. Next they undergo a partial drying, and receive a uniform coating of a peculiar paste, which is the main feature of the invention, and is a compound of various vegetable, animal, and saline substances. The vegetable substances are such as contain a large proportion of starch and little gluten—such as barley flour, rice flour or starch itself. The animal substances are of a fatty nature; ox brains, butter, milk, animal oil, or grease. Salt and saltpeter are used merely as preservatives for the brains and the butter. Next the hides are put into the interior of large drums, around the inner peripheries of which a number of stout pegs are disposed radially, the intention of which is to beat up and mellow the hides and to effect an equal distribution of the moisture they still retain, and the complete and uniform absorption of the paste throughout their fibrous system. The drums are driven by a steam engine and to promote a drying action the waste steam from the engine is conducted into them. Having been kneaded forcibly together in this manner for some hours—more or less according to the nature and thickness of the hides—the drums are thrown out of gear, and the hides drawn out. It is now ascertained that the work of absorption and of partial drying has gone on vigorously, and with uniformity, and that the hides not having yet attained the point of saturation, are ready for another supply of the paste and a second turn in the drums. Previous to this, however, they are hung up in an airy part of the room, so as to insure uniformity of color and of substance, which when perfected proves that the conversion of the gelatinous mass has been equal and complete. They are now ready, after a little more drying, for the operations of the currier, who finds that his work is considerably lessened in amount by the effects of the above process. The *Shoe and Leather Reporter* is authority for the above statements.

The Nashawannuck Suspender Mills at Easthampton, Mass., are to close 18th inst.