

FOREIGN NEWS AND MARKETS.

The Sheffield steel trade continues very active; this is owing to the adaptation of steel to several new branches of manufacture. The casting of steel bells has become quite an extensive business. One firm in Sheffield has made 1,300 during the past six months, and some of very large dimensions are about to be cast. Steel is cheaper than regular bell-metal; and as it is much stronger, less metal is required in a bell. Kettle drums, for the British army, are now also made of steel, and they have attained considerable success.

Statistics have been collected of the destruction caused on the coasts of England by the hurricane which took place on the 24th of October last; and the disasters appear to have been the most numerous on record. There were 325 shipwrecks, and 748 lives lost.

Batteries of the Armstrong breech-loading rifled cannon are being manufactured with great rapidity. No less than 30 of these guns, some of which are of large caliber, are being sent with great despatch by the overland route to China.

It is proposed to build a monster hotel near the old London Bridge, having 250 sleeping apartments. The returns of the different railways which have their termini at London Bridge, show that not less than 18,000,000 of persons travel annually upon those lines. This hotel, however, will not equal, in size, some of the largest ones in New York.

A farmer—Mr I. Cutts—in the county of Essex, England, lately opened up, for public inspection, a large building like a factory, for doing the inside work of the farm. There is a steam engine in it of 12-horse power, which cuts the hay and straw, grinds the meal, mixes the food for the cattle, and conveys it to the stables. It also threshes the grain and drives a circular saw. At the end of the building, there is a piggery and apparatus for steaming all the pig and cattle feed. The food for the animals is conveyed on iron trucks, which run on tram rails, and traverse the building. The cost of the structure and machinery amounted to £3,000 (nearly \$15,000). This affords some evidence of the perfection to which indoor farming operations has attained in England.

The French government has just opened a free school in Paris to teach the youth of both sexes the art of drawing and engraving on wood. One of the most eminent painters in Paris has been chosen its drawing-master.

At the Gobelins' factory, in Paris, there are finishing a series of portraits of eminent sculptors, painters and artists of the sixteenth century. They are to adorn the gallery of Apollo, at the Louvre.

At all hours of the day and night there are persons in the thoroughfares of Paris who keep a record of the number and class of vehicles which pass. As the streets are macadamized, instead of being paved, the object of keeping a record of the vehicles is to ascertain the amount of wear they exert upon the streets.

There has been no change in the British metal market since our last issue, excepting that pig iron was somewhat more active, at former ruling prices. Cotton, in Liverpool, had been rather flat.

NEW YORK MARKETS.

CANDLES.—Sperm, city, 38c. a 40c. per lb.; sperm, patent, 50c.; wax, paraffine, 50c.; adamantine, city, 18c. a 21c.; stearic, 27 a 28c.
 COAL.—Anthracite, \$4.50 a \$5; Liverpool orrel, \$11; cannel, \$12.
 COPPER.—Refined ingots, 28c. per lb.; sheathing, 26c.; yellow metal, 20c.
 CORNAGE.—Manilla, American made, 8½c. per lb.; Rope, Russia hemp, 12c.
 CORN.—Ordinary, 8½c. a 8¾c.; good ordinary, 9½c. a 10c.; middling, 11½c. a 11¾c.; good middling, 11½c. a 12¾c.; middling fair, 11½c. a 12¾c.
 DOMESTIC GOODS.—Shirtings, brown, 30-inch, per yard, 6c. a 7½c.; shirtings, bleached, 26 a 32-inch, per yard, 6c. a 8c.; shirtings, bleached, 30 a 34-inch, per yard, 7c. a 8½c.; sheetings, brown, 36 a 37-inch, per yard, 5½c. a 8½c.; sheetings, bleached, 36-inch, per yard, 7½c. a 15c.; calicoes, 6c. a 11c.; drillings, bleached, 30-inch, per yard, 8½c. a 10c.; cloths, all wool, \$1.50 a \$2.50; cloths, cotton warp, 85c. a \$1.57; cassimeres, 85c. a \$1.37½; satinetts, 30c. a 60c.; flannels, 15c. a 30c.; Canton flannels, brown, 8½c. a 13c.
 DREWOODS.—Barwood, per ton, \$18 a \$20; Camwood, \$130; Fustic, Cuba, \$35 a \$30; Fustic, Tampico, \$22; Fustic, Savanilla, \$19 a \$20; Fustic, Mara albo, \$18.50 a \$19; Logwood, Laguna, \$23 a 23; Logwood, Tabasco, \$21; Logwood, St. Domingo, \$13 a \$13.50; Logwood, Honduras, \$16 a \$17; Logwood, Jamaica, \$12.50 a \$12; Lima wood, \$65 a \$75; Sapan wood, \$45.
 FLOUR.—State, superfine brands, \$5.15 a \$5.20; Ohio, common brands, \$5.30 a \$5.35; Michigan, Indiana, Wisconsin, &c., \$5.15 a \$5.30; Genesee, extra brands, \$5.75 a \$7.50; Missouri, \$5.50 a \$7.50; Canada, \$5.40 a \$6.50; Richmond City, \$6.25 a \$7.25; Rye flour, fine, \$3.60 a \$3.90; corn meal, \$3.75.

HEMP.—American undressed, \$120 a \$150; dressed, from \$150 a \$200. Jute, \$87 a \$90. Italian, \$375. Russian clean, \$190 a \$200 per tun. Manilla, 6½c. per lb. Sisal, 5½c.
 INDIA-RUBBER.—Para, fine, 55c. per lb.; East India, 50c.
 INDIGO.—Bengal, \$1 a \$1.55 per lb.; Madras, 70c. a 95c.; Manilla 60c. a \$1.15; Guatemala, \$1 a \$1.25.
 IRON.—Pig, Scotch, per ton, \$24 a \$35; Bar, Swedes, ordinary sizes, \$25 a \$30; Bar, English, common, \$42.50 a \$43; Refined, \$52 a \$54; Sheet, Russia, best quality, per lb., 11½c. a 11¾c.; Sheet, English, single, double and treble, 3½c. a 3¾c.; Anthracite pig, \$34 per tun.
 IVORY.—Per lb., \$1.25 a \$1.80.
 LATHS.—Eastern, per M., \$2.25.
 LEAD.—Galena, \$5.50 per 100 lbs.; German and English refined, \$5.65 a \$5.70; bar, sheet and pipe, 5½c. a 6c. per lb.
 LEATHER.—Oak slaughter, light, 29c. a 30c. per lb.; Oak, medium, 30c. a 32c.; Oak, heavy, 28c. a 31c.; Oak, Ohio 29c. a 30c.; Hemlock, heavy, California, 19c. a 20c.; Hemlock, buff, 15c. a 18c.; Cordovan, 50c. a 60c.; Morocco, per dozen, \$18 to \$20; Patent enamelled, 16c. a 17c. per foot, light Sheep, morocco finish, \$7.50 a \$8.50 per dozen; Calf-skins, oak, 57c. a 60c.; Hemlock, 56c. a 60c.; Belting, oak, 32c. a 34c.; Hemlock, 28c. a 31c.
 LIME.—Rockland, 80c. per bbl.
 LUMBER.—Timber, white pine, per M feet, \$17.50; yellow pine, \$35 a \$36; oak, \$18 a \$23; eastern pine and spruce, \$14 a \$15.50; White Pine, clear, \$35 a \$40; White Pine, select, \$25 a \$30; White Pine, box, \$14 a \$18; White Pine, flooring, 1½ inch dressed, tongued and grooved, \$24.50 a \$25; Yellow Pine, flooring, 1½ inch, dressed, tongued and grooved, \$20 a \$22; White Pine, Albany boards, dressed, tongued and grooved, \$30 a \$31; Black Walnut, good, \$45; Black Walnut, 2d quality, \$30; Cherry, good, \$45; White Wood, chair plank, \$42; White Wood, 1 inch, \$23 a \$25; Spruce flooring, 1½ inch, dressed, tongued and grooved, each, 23c. a 24c.; Spruce Boards, 16c. a 17c.; Hemlock Boards, 12½c. a 14c.; Hemlock wall strips, 10c. a 11c.; Shingles, cedar, per M, \$28 a \$35; Shingles, cypress, \$12 a \$25; Staves, W. O. pipe, light, \$55 a \$5; Staves, white oak, pipe, heavy, \$75 a \$80; Staves, white oak, pipe, culls, \$30 a \$35; Staves, do. lhd., heavy, \$70; Staves, do. bbl. light, \$30 a \$35; Staves, do. bbl. culls, \$20; Mahogany—St. Domingo, fine crotches, per foot, 35c. a 45c.; St. Domingo, ordinary do., 20c. a 25c.; Honduras, fine, 12½c. a 15c.; Mexican, 13c. a 15c.
 NAILS.—Cut, 3½c. a 3¾c. per lb.; American clinch, 5c. a 5½c.; American horse-shoe, 14½c.
 OLIVE.—Olive, Marseilles, baskets and boxes, \$3.55 a \$3.40; Olive, in casks, per gallon, \$1.10 a \$1.15; Palm, per pound, 9c. a 9½c.; Linseed, city made, 57c. a 58c. per gallon; linseed, English, 57c. a 58c.; whale, fair to prime, 49c. a 52c.; whale, bleached 59c. a 60c.; sperm, crude, \$1.35 a \$1.40; sperm, unbleached winter, \$1.45; lard oil, No. 1, winter, 87½c. a 92½c.; red oil, city distilled, 55c.; Wadsworth's refined rosin, 30c. a 40c.; Wadsworth's boiled oil for painting, 35c. a 40c.; Wadsworth's tanner's improved and extra, 30c. a 40c.; Wadsworth's machinery, 50c. a \$1; camphene, 45c. a 47c.; fluid, 54c. a 56c.
 PAPER.—Litharge, American, 7c. per lb.; lead, red, American, 7c.; lead, white, American, pure, in oil, 8c.; lead, white, American, pure, dry, 7½c.; zinc, white, American, dry, No. 1, 5c.; zinc, white, French, dry, 7½c.; zinc, white, French, in oil, 9½c.; ochre, ground in oil, 4c. a 6c.; Spanish brown, ground in oil, 4c.; Paris white, American, 7c. a 9c. per 100 lbs.; vermilion, Chinese, \$1.12½ a \$1.22; Venetian red, N. C., \$1.75 a \$2.25 per cwt.; chalk, \$3 per tun.
 PLASTER-OF-PARIS.—Blue Nova Scotia, \$2.75 per tun; white, \$3.50; calcined, \$1.20 per bbl.
 RESIN.—Common, \$1.60 per 310 lbs.; strained, No. 2, &c., \$1.60 a \$1.70; No. 1, per 280 lbs. \$1.75 a \$2.50; white, \$2.50 a \$3; pale, \$3 a \$5.50.
 SOAP.—Brown, per pound, 5c. a 6c.; Castile, 8½c. a 9c.; Chemical olive, 7c. a 7½c.
 SVELTER plates, 5½c. a 5¾c. per lb.
 STEEL.—English cast, 14c. a 16c. per lb.; German, 7c. a 10c.; American spring, 6c. a 5½c.; American blister, 4½c. a 5½c.
 SUMAC.—Sicily, \$60 a \$80 per tun.
 TALLOW.—American prime, 10½c. per lb.
 TIN.—Banca, 32c.; Straits, 30c.; plates, \$6.25 a \$9.30, per box.
 WOOL.—American, Saxony fleece, per lb., 55c. a 60c.; American full blood merino, 48c. a 62c.; extra, pulled, 45c. a 50c.; superfine, pulled, 39c. a 43c.; California, fine, unwashed, 24c. a 32c.; California, common, unwashed, 10c. a 18c.; Mexican, unwashed, 11c. a 14c.
 ZINC.—Sheets, 7c. a 7½c. per lb.
 The foregoing rates indicate the state of the New York markets up to December 29th.

There has been very little change in the markets during the past week; all kinds of manufacture and merchandize are in a state of inactivity, but this is usually the case during the last month of the year. There is a good demand for furs of all descriptions. Capes are enlarged in their dimensions this winter, and full robes of fur, such as are worn by the ladies of Russia, are becoming more common. Otter skins are selling at from \$3.50 to \$5.50 each; those of the black and the silver fox, from \$10 to \$50; the dark marten, \$5 to \$6; the dark mink, \$2.50 to \$3; the beaver, \$1.20; and the skin of the black bear, for sleigh robes, from \$6 to \$8. There has been a steady demand for hemlock sole, and a further advance has been obtained on all descriptions of leather. Oak sole continues in fair inquiry, without variation in prices. No less than \$39,975,750 arrived from California last year, being an increase of \$3,796,406 over the year previous. The latest mining news from California is highly favorable, and promises well for the gold crop and recently-discovered silver crop. So, also, the gold news from Oregon represents everything in that quarter in a flourishing condition. The cotton exports this season have been 902,000 bales, against 729,000 bales of last season. The best qualities of cotton are rather scarce in the market.

RAND'S FLOUR MILL.—Some months ago, we solicited a patent for Christopher Rand, of Peoria, Ill., on a flour mill constructed on an ingenious and novel plan; and, if the statements are true, it has proved one of the most valuable improvements ever made in flour and grain mills. The stones are made in the form of rings so that the whole of the grinding surface has a much more nearly uniform speed than in the usual plan. A radial fan is placed within the rings, which blows the flour out from between the stones as it becomes sufficiently fine; thus relieving it from the continual action of the stones, which tends to heat it and consumes power uselessly. The upper stationary stone is hung upon universal joints, which secures a perfect adjustment of the faces and keeps them in "tram."



ISSUED FROM THE UNITED STATES PATENT OFFICE FOR THE WEEK ENDING DECEMBER 27, 1859. [Reported Officially for the SCIENTIFIC AMERICAN.]

** Pamphlets giving full particulars of the mode of applying for patents, size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

26,553.—Norman Allen, of Unionville, Conn., for an Improved Vise and Saw-set: I claim the vise formed of the bar, A, with jaws, b, h, attached, the movable bar being actuated by the treadle, B, rod, C, and toggle, D, or their equivalents, in combination with the saw-set formed of the bar or bed, G, attached to the vise by the rod, F, and provided with the beveled plate, i, gage, j, and adjustable center, H, substantially as and for the purpose set forth.

26,554.—Wm. H. Baker, Daniel Dean, and B. L. Fetherolf, of Tamaqua, Pa., for an Improvement in Straw-cutters: We claim, first, The double-edged reciprocating knife, G, in connection with the bed, P, arranged to operate substantially as and for the purpose set forth. Second, The arrangement of the eccentric, H, yoke, I, slide, J, lever frame, M, and bars, O, substantially as shown and described for operating conjointly the feed bar, L, and pressure bed, P. Third, The eccentric plate, G, placed on the shaft, I, when used in connection with the slide, J, to control its longitudinal movement for the purpose set forth. [The object of this invention is to obtain a machine that will cut hay, straw and stacks for fodder with great rapidity, perform the work well, and be capable of having certain parts graduated so as to regulate, as may be desired, the length of the pieces into which the stuff is to be cut.]

26,555.—Wm. Banham, of San Francisco, Cal., for an Improvement in Machines for Pulverizing Quartz: I claim the circular troughs T T', constructed as described, in combination with the drags, D D', at the extremities of the radial arms, a, the whole constructed and operated substantially in the manner and for the purpose set forth.

26,556.—R. D. Bartlett, of Bangor, Me., for an Improvement in Veneering Machines: I claim the application of the throat gage to the main and secondary cutters, so that both the gage and secondary cutters can be turned upward away from the log, under circumstances and for the purpose or objects substantially as set forth.

26,557.—G. W. Beardslee, of Flushing, N. Y., for an Improved Magneto-electric Machine: I claim the mode of operation of the pole-changer, by which the current is made to travel in the same direction, substantially as described.

26,558.—G. W. Beardslee, of Flushing, N. Y., for an Improved Magneto-electric Machine: I claim the compound magnet described, consisting of radial poles, arranged about a common center, and connected together at their inner ends, substantially as and for the purpose described. I also claim forming such a compound magnet, with radial poles, connected at their inner ends, by cutting out the radial poles and connecting rings from a single plate, substantially as and for the purpose specified. I also claim, in combination with rotating magnets, the insulated rings to which the terminal wires of the helices are connected, substantially as described.

26,559.—James Bouton, of Macon City, Mo., for an Improvement in Seeding Machines: I claim the arrangement of the wheels, b, b', pipes, C and D, covers, E, springs, F, and u, and the yielding beam, c, in the manner described, and also the arrangement of the valve, t, in the hopper, P, in the manner described, for the purpose specified.

26,560.—Samuel Boyd, of Brooklyn, N. Y., for an Improvement in the Manufacture of Hoes: I claim the combination with the drop, G, and anvils, B, of the drop opening, f, and mandrel, C, so that after the drop has given its blow it will hold the hoe in place, and allow the mandrel, C, to be passed through it into the hoe, to form and finish the eye thereof, all as shown and described. [The object of this invention is to reduce the manual labor attending the manufacture of hoes, and at the same time ensure a better finish and more desirable article than could be produced by the devices hitherto employed.]

26,561.—O. G. Brady, of New York City, for an Improvement in Guides for Sewing Machines: I claim the combination of the presser, having its sole formed with a curve, c, a grooved top, f, and a recess, g, as described, and the curved guide tube, g, arranged relatively to the curved edge and toe of the presser, as described, and operating as and for the purpose specified. [This invention consists in a certain construction and arrangement relatively to each other, of a guiding tube and a grooved presser,