

ness, and to give them some of the results of our experience, we shall briefly review some of the provisions of that bill.

It establishes a Patent Bureau with a Commissioner at its head, and provides for a Patent Board to be composed of the President of the Council, the Commissioner of Patents, and the Attorneys-general and Solicitors-general of Upper and Lower Canada—six members in all. This board is to grant all patents, and is to exercise an appellate jurisdiction over all the decisions of the Commissioner.

We think this Patent Board will be found cumbersome and inconvenient. We have once had a similar system, which proved unsatisfactory. By the law of 1836, the Secretary of State, the Attorney-general and the Commissioner of Patents constituted a board for certain purposes, but the arrangement has long since proved unsatisfactory. A single executive or administrative officer is preferable to a board, and the business of an office will be more promptly and satisfactorily performed when its incumbent is confined strictly and solely to the duties of that particular office.

A "Register of Patents" and a "Register of Proprietors" are provided for, which are but different names for corresponding features in our system. Certified copies from either of these registers are to be receivable as *prima facie* evidence of the patent or of the license or assignment. So far as it respects the "Register of Proprietors" (or as we term it, the record of assignments), the rule is different with us. The record of an assignment proves nothing, by our law, but the mere fact that there is such a record. It is not even *prima facie* evidence of the genuineness of the assignment. Unless such assignments are required to be acknowledged before some public officer, it may be doubtful whether it will be safe to make such a copy proof of the validity of a transfer. It is true that penalties are provided against false entries and forgeries, but this is rather a slow and uncertain remedy for such evils.

Patents are granted to any person irrespective of his condition or country, and without any discrimination as to the amount of the fee required. This is a great advance over the illiberality and want of wisdom of our own law, and one which, for the credit of our country, we hope the Canadians will not be beforehand with us in making.

The only distinction made between natives and foreigners is that aliens and non-residents are required to commence the manufacture of the thing patented within one year after the date of the patent, and to supply the patented article in sufficient quantities to meet the demand therefor; whereas, the resident citizen has five years within which to do the same. A failure, in either case, to comply with this requirement renders the patent invalid.

We have always been opposed to any such distinction in our own law, but shall not attempt to dictate to our Canadian friends. We should have been better pleased with the law if this feature were omitted; but even while this remains, it will be so much less objectionable than the present law of either that country or of this, that we cannot find it in our hearts to complain. We will, however, suggest that such a regulation will prevent the taking out of many patents in Canada which would otherwise be patented there. A very large proportion of those who make inventions have not the means of manufacturing what they have invented, and the law would thus, to some extent, tend to discourage the very class it is designed to protect.

The proposed law enables parties in patent cases to obtain the testimony of witnesses in the same way as in ordinary civil suits, thus supplying a defect in our own law which is wholly inexcusable.

It provides for a provisional protection of six months, which is better than our caveat system, and intended for a like purpose. It also allows of a temporary protection of three years, at a reduced patent fee, thus enabling the patentee to fully test the value of his patent before incurring the expense of a full patent. This is also a good regulation, and will prevent the accumulation of a vast number of useless patents, which with us serve no purpose but to stand in the way of some subsequent invention.

In relation to re-issues, additional improvements, disclaimers, and assignments, the bill is substantially the same as our law.

The date of the patent is to be stamped or engraved on each patented article vended or offered for sale, under a pretty severe penalty. This is like our law but needs some modification, as sometimes the patented article is so small as not to admit of being so marked.

Provision is made for repealing patents when fraudulently or surreptitiously obtained, or when issued improvidently. This is a very important regulation, not found in our law.

The 53d section contains some provisions which might be advantageously modified. A patent is rendered invalid if the subject-matter is found described in any printed publication prior to its discovery by the patentee. This is our law, but it is too broadly expressed, both here and there. It has sometimes happened that a valuable patent to a *bona fide* inventor has been rendered invalid in consequence of finding a description thereof in some obscure and forgotten work published a quarter of a century previous. In such cases the new inventor has conferred the same benefit upon the world as though he were the *first* inventor of that which, but for him, would have been still unknown to the world. It is like the restoration of a lost art, except that, in this case, the real utility of the invention was perhaps never before known.

Again, the public use of the invention prior to the application for a patent renders such patent invalid. This was our former law, but we now allow it to be used for a term of time not exceeding two years, without prejudice to the inventor. This was a salutary change.

Finally, it is made a misdemeanor, punishable by fine and imprisonment, if it be proved, on the trial, that the patentee was not the original discoverer, but that the invention had been previously in use. Comment is unnecessary to show the undue severity of such a regulation which has doubtless found its way into the bill through inadvertence.

Provision is made in the bill for the registration of designs, the general nature of which is greatly superior to our law, and will supply a want which has long been felt in this country.

The bill is very copious, containing one hundred sections. Our space only permits us to glance at it now. We feel highly gratified to witness its appearance; and with some changes which a more careful consideration will doubtless suggest, it may be rendered a model law, worthy of the imitation of every nation in Christendom.

FIRE-BRICKS.

The bricks which are employed to line the interior of stoves, the sides of furnaces and steam boilers, are made from a peculiar earthy substance known as fire-clay. It is found in deposits in various parts of the world, and very often in the coal regions where it appears in regular beds. The name is derived from its refractory character, as it withstands a very high degree of heat with impunity. Its constituents are silica, 70.6; alumina, 25.9; oxyd of iron, 2; carbonate of lime, 1.5. Sometimes there are also traces of magnesia in it, and the proportions of the foregoing are also modified according to locality. In some deposits there is a little more silica and a little less alumina than in others, but these two substances are the leading ones of this clay, and silica the principal one.

In making fire-bricks, the clay, after being dug out, is exposed to the atmosphere for some days, and sometimes weeks, before it is removed to the mill, where it is ground into a coarse powder with a mixture of about one-sixth of old burnt clay. The common mill used for grinding it is simply two large stones or cast iron wheels set on an edge and revolved by a shaft in suitable bearings in a trough into which the clay is fed. This is the old Chilian mill which has not yet found a superior for some purposes. The trough or bed plate in which the clay is ground is of cast iron, and as the clay is reduced to a proper fineness it falls into a receptacle, from which it is carried away by a conveyor similar to that in a grist mill, and is then deposited in a common pug mill where it is mixed with water and thoroughly kneaded into a proper condition to render it fit for molding. These bricks are molded like building bricks, and are afterwards exposed to heat in a warm apartment, where they are thoroughly dried preparatory to being burned. For this purpose they are placed in kilns similar in form and construction to those employed for baking pottery-ware. Here they are subjected to a very high heat, and it generally takes constant firing for five days before 15,000

bricks can be burned in a kiln 14 feet in diameter and 10 feet high. The firing of such bricks must be conducted with great care. They are so laid on their edges, one above another and in rows, that spaces of about half an inch are left between the lines. These spaces answer the purpose of minute flues; the flame and hot gases from the fire pass through them up to the chimney which is situated at the back end of the kiln. The firing is commenced slowly, and the temperature gradually increased towards the end of the operation.

It is the infusible character of fire-clay which renders it so valuable and serviceable to the arts. Without it, we could not carry on our iron manufactures, as no other substance is equal to it in every respect for lining the walls of the smelting furnaces, and without iron a thousand useful arts could not be practiced. Iron, lime and magnesia—in short any metallic alkaline substance in fire-clay, is an impurity and injures its refractory character. For many years all the fire-bricks used in America were imported from England, and many still come from that country, but in Baltimore, Md., the manufacture of them is now conducted on a very extensive scale from clay found in the vicinity of that city.

WELDING AT A SINGLE BLOW.

In our notice of Wendt & Seymour's scissors, on page 290, Vol. I. (new series), of the SCIENTIFIC AMERICAN, we mentioned the fact that they were welded by a drop which completed the operation at a single blow. From the London *Engineer*, of Dec. 30, 1859, we learn that at one large establishment in England, railroad wheels are welded by a similar process. The several parts of the wheel, having been previously forged, are placed in a mold, in proper position, and heated to a welding heat. They are then placed under a powerful steam hammer, furnished with dies for giving the requisite form to the wheel, when one crushing blow not only welds the several parts together, but almost finishes the wheel. The *Engineer* says that the economy is enormous.

Is not this one of the most important improvements which have been made for a long time in the working of iron? Why cannot knives, chisels, and nearly all articles of cutlery be welded and "finished" (in the technical sense) by this wonderfully short process? As the article does not have time to cool, when thus welded, could it not be plunged at the proper temperature into the cold bath, and thus the hardening, as well as the welding and finishing, be done at one heat?

WEEKLY SUMMARY OF INVENTIONS.

The following inventions are among the most useful improvements patented this week. For the claims to these inventions the reader is referred to the official list on another page:—

FIRE-ARMS.

This invention consists in the construction of a fire-arm with several chambers arranged in a circle concentric to a common barrel with whose bore they are severally connected by means of converging passages, or by being themselves made to converge towards it. It further consists in the employment, in combination with the said chambers, of a plate containing holes whose arrangement corresponds with that of the said chambers, for the purpose of withdrawing the empty cases of metallic cartridges from the said chambers after their discharge. W. H. Morris and C. L. Brown, of this city, are the inventors.

VALVE GEAR OF STEAM ENGINES.

This invention consists principally in the combination with two movable toes on the valve rockshaft of a steam engine, of two eccentrics arranged at right angles to each other, or thereabouts, on the crankshaft or other rotating shaft of the engine, and connected by a movable yoke with the rockshaft, for the purpose of enabling the steam to be cut off from the cylinder by the main valves at any point of the stroke that may be at any time desirable. The inventor of this improvement is Julius King, of Hoboken, N. J.

AUTOMATIC LAMP-LIGHTING DEVICE.

This invention consists in applying to a lamp a match-holder and friction-plate, the latter having a spring connected to it, and so arranged that, when liberated and actuated by the spring, the friction plate will ignite the match, and thereby cause the lamp to be lighted. The invention is more especially designed to be applied to alarm clocks to be operated by the same simultaneously

with the sounding of the alarm. It may, however, be used separately and operated by a cord in cases where it may be necessary. The credit of this contrivance is due to George K. Proctor, of Beverly, Mass.

COILED SPRINGS.

This invention consists in crimping or corrugating the steel wire previous to forming it into a coiled or helical spring; and in conjunction with this crimping it consists in giving to the wire at each bend a half twist which will give resilient action to the wire when formed into a coil. This improvement was designed by James W. Peck, Jr., of Brooklyn, N. Y.

MACHINE FOR PICKING MILLSTONES.

This invention relates to an improvement in those machines for picking millstones which have the pick shaft fitted in a sliding frame attached at one end only to the bed-piece or stock of the machine. The object of the invention is to obtain a more delicate and perfect adjustment of the pick so that the stones may be "cracked" or picked between the large or master furrows in a more perfect manner than hitherto. The invention also consists in giving the framing of the pick shaft an independent adjustable movement, whereby the desired result is attained. The patentee of this invention is E. W. Daniels, of Springfield, Mass.

WAGON BRAKE.

This invention relates to an improvement in that class of wagon brakes in which the brakes are connected with the draft pole, and are generally termed "self-acting." The object of the invention is to obviate the difficulty hitherto caused by the binding of the draft pole in its guides and the consequent imperfect action of the device. The invention consists in having the back part of the draft pole attached to a shaft which has a pinion at each end, the pinions gearing into racks attached to the vehicle; the whole being so arranged as to insure a positive movement of the draft pole or to insure the parallelism of the front axle of the vehicle and the shaft which is attached to the draft pole, and thereby obviate the difficulty alluded to. This device has been patented to Jacob Dutcher, of Gibson, Pa.

FOREIGN NEWS AND MARKETS.

The cold has been very severe in many parts of Europe, and especially so in France, when several persons were frozen to death in localities where frost is seldom seen. In the city of Lyons, a sentinel was frozen to death in his sentry-box. The Parisians have been rendered almost demented by the cold, which was about 10 degrees below the freezing point. The suburbs of Paris, outside of the gates, contained, last year, a population of about 300,000; now these are taken within the imperial domain, the circumference of which has been increased by a radius of one mile. By this change in the dimensions of the city, it will be 30 miles in circumference, and have a population of 1,500,000.

There has been a vast increase in the number of British steamships during the past few years, and they are fast superseding sailing vessels of all classes. In 1850 there were 1,181 steam vessels in Great Britain; the net tonnage of which was 167,398. In 1851, there were 1,916 steam vessels, with a net tonnage of 451,047, and a gross tonnage of 682,433. There has been a decided increase in the size of new steamers built, of late; and by great improvements in economizing fuel, they have become much more profitable than formerly. The saving of coal in British steamships, during the past three years, amounts to at least 30 per cent on an average. At the present moment there are some very large contracts in the course of fulfillment at Newcastle, among the number of which are two for large iron steamers for the Atlantic trade, the speed of which is to be from 16 to 20 miles per hour. At Glasgow quite a number of new iron steamers—amounting in value to about \$5,000,000—are also on the stocks.

Old as Mother England is, she appears to have considerable vitality in her system. No country in the world raises such a revenue, and as this is an indication of her productive powers, she certainly stands pretty high in this respect and carries very capacious pockets. The following is the amount of British government revenue for the years 1859 and 1858, the total for each year (\$496,070,469 sterling) being the equivalent of about

\$333,000,000, a sum five-fold greater than the taxation, direct and indirect, required for the support of the federal government in this country, per annum, and at least three-fold greater than the sum total required for the annual support of our federal and 33 State governments combined.

As Scotch pig iron is about as well-known in America as in the country where it is made, owing to its soft, smooth character which renders it well adapted for various kinds of castings, a short sketch of its progress will not be out of place. It is just about 100 years since the first iron furnace was erected in Scotland. To-day there are 125 furnaces in blast, and the product of 1859 amounted to 950,000 tons. The increase has been very great of late years, and what is remarkable, all this is a source of income. This iron is mostly exported. The exports during April, May and June of last year amounted to 60,000 tons per month. The price per ton in December last was £2 18s. 9d. (about \$14), and the demand good at this price. Thirty years ago, £6 and sometimes £11 were obtained for a ton of Scotch pig iron. So many and so great have been the improvements made that good profits are now obtained for present low prices—less than one-fourth the old rates; and what is more wonderful still, there has been an increase of wages to the iron operatives. The coal, ironstone and limestone in Scotland are found in the same mines, one lying above the other—a combination of natural resources and advantages not existing, in the same perfection for smelting iron, anywhere else.

NEW YORK MARKETS.

CANDLES.—Sperm, city, 35c. a 40c. per lb.; sperm, patent, 50c.; wax, paraffine, 50c.; adamantine, city, 13c. a 21c.; stearic, 27 a 28c.
 COAL.—Anthracite, \$4.50 a \$5; Liverpool orrel, per chaldron, \$12; cannel, \$13.
 COPPER.—Refined ingots, 24c. a 24½c. per lb.; sheathing, 22c.; yellow metal, 20c.
 CORDAGE.—Manilla, American made, 8½c. per lb.; Rope, Russia hemp, 12c.
 COTTON.—Ordinary, 9c. a 9½c.; good ordinary, 9½c. a 10½c.; middling, 11½c. a 11¾c.; good middling, 12c. a 12¾c.; middling fair, 12½c. a 13½c.
 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, 25c. a \$1.37½; satinets, 30c. a 60c.; flannels, 15c. a 20c.; Canton flannels, brown, 8½c. a 13c.
 DWYWOODS.—Barwood, per tun, \$18 a \$30; Camwood, \$130; Fustic, Cuba, \$35 a \$36; Fustic, Tampico, \$32; Fustic, Savanilla, \$19 a \$20; Fustic, Maracibo, \$18.50 a \$19; Logwood, Laguana, \$22 a \$23; Logwood, Tabasco, \$31; Logwood, St. Domingo, \$18 a \$18.50; Logwood, Honduras, \$16 a \$17; Logwood, Jamaica, \$12.50 a \$13; Lima wood, \$5 a \$7; Sapan wood, \$45.
 FLOUR.—State, superfine brands, \$4.95 a \$5.10; Ohio, common brands, \$5.20 a \$5.30; Ohio, good and choice extra brands, \$5.80 a \$6.75; Michigan, Indiana, Wisconsin, &c., \$5.20 a \$5.30; Genesee, extra brands, \$5.60 a \$7.25; Missouri, \$5.80 a \$7.50; Canada, \$5.50 a \$6.75; Virginia, \$6.25 a \$7.25; Rye flour, fine, \$3.75 a \$3.90; corn meal, \$3.30 a \$4.20.
 HEMP.—American undressed, \$120 a \$150; dressed, from \$160 a \$200. Jute, \$95 a \$97. Italian, \$275. Russian clean, \$190 a \$300 per tun. Manilla, 6½c. per lb. Sisal, 5½c.
 INDIA-RUBBER.—Para, fine, 55c. per lb.; East India, 47½c.
 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 tun, \$25 a \$26; Bar, Swedes, ordinary sizes, \$35 a \$36; Bar, English, common, \$42.50 a \$43; Refined, \$53 a \$54; Sheet, Russia, 1st quality, per lb., 11½c. a 11¾c.; Sheet, English, single, double and treble, 3½c. a 3¾c.; Anthracite pig, \$24 per tun.
 IVORY.—Per lb., \$1.25 a \$1.80.
 LATHS.—Eastern, per M., \$2.
 LEAD.—Galena, \$5.80 per 100 lbs; German and English refined, \$5.65 a \$5.70; bar, sheet and pipe, 6½c. a 7c. per lb.
 LEATHER.—Oak slaughter, light, 29c. a 31c. per lb.; Oak, medium, 30c. a 32c.; Oak, heavy, 28c. a 31c.; Oak, Ohio 29c. a 30c.; Hemlock, heavy, California, 20c. a 21½c.; Hemlock, buff, 15c. a 18c.; Cordovan, 50c. a 60c.; Morocco, per dozen, \$18 to \$26; Patent enamelled, 15c. a 17c. per foot, light Sheep, morocco finish, \$7.50 a \$8.50 per dozen; Calf-skins, oak, 55c. a 60c. per lb.; Hemlock, 56c. a 60c.; Belting, oak, 32c. a 34c.; Hemlock, 28c. a 31c.
 LIME.—Rockland, 75c. per bbl.
 LUMBER.—Timber, white pine, per M. feet, \$17.75; yellow pine, \$35 a \$36; oak, \$18 a \$23; eastern pine and spruce, \$14 a \$15; 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, \$29 a \$32; White Pine, Albany boards, dressed, tongued and grooved, \$20 a \$21; 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, 29c. a 34c.; Spruce Boards, 15c. 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 \$58; Staves, white oak, pipe, heavy, \$75 a \$80; Staves, white oak, pipe, culls, \$80 a \$85; Staves, do. hhd., 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, 18c. a 15c.
 NAILS.—Cut, 3½c. a 3¾c. per lb.; American clinch, 5c. a 5½c.; American horse-shoe, 14½c.
 OILS.—Olive, Marseilles, baskets and boxes, \$3.85 a \$3.50; Olive, in casks, per gallon, \$1.12 a \$1.25; Palm, per pound, 9c. a 9½c.; Linseed, city made, 57c. a 58c. per gallon; linseed, English, 57c. a 58c.; whale, fair to prime, 48c. a 52c.; whale, bleached 59c. a 60c.; sperm, crude, \$1.40 a \$1.45; sperm, unbleached winter, \$1.47; lard oil, No. 1, winter, 92½c. a 97½c.; red oil, city distilled, 60c.; Wadsworth's refined rosin, 30c. a 40c.; Wadsworth's boiled oil for painting, 25c. a 40c.; Wadsworth's tanner's improved and extra, 30c. a 40c.; camphene, 44c. a 45c.; fluid, 50c. a 53c.
 PASTES.—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.; vermillion, Chinese, \$1.12½ a \$1.22; Venetian red, N. C., \$1.75 a \$2.25 per cwt.; chalk, \$4 per tun.
 PLASTER-OF-PARIS.—Blue Nova Scotia, \$3.75 per tun; white, \$3.50; calcined, \$1.20 per bbl.
 RESIN.—Turpentine, soft, N. C., per 280 lbs., \$3.80 a \$3.56; Wilmington, &c., \$3.50 a \$3.55; common, per 310 lbs., \$1.60 a \$1.65; strained and No. 2, \$1.62 a \$1.95; No. 1, per 280 lbs. \$2 a \$2.75; white, \$3 a \$4; pale, \$4.50 a \$5.50.
 SOAP.—Brown, per pound, 8c. a 8½c.; Castile, 8½c. a 9c.; Olive, 7c. a 7½c.
 SPELTER plates, 5½c. a 5¾c. per lb.
 STEEL.—English cast, 14c. a 18c. per lb.; German, 7c. a 10c.; American spring, 5c. a 5½c.; American blister, 4½c. a 5½c.
 SUGAR.—New Orleans, 7c. a 8½c. per lb.; Porto Rico, 7c. a 8½c.; Havana, brown and yellow, 6½c. a 9½c.; Havana, white, 8½c. a 9½c.; Brazil, white, 8c. a 8½c.; Brazil, brown, 7½c. a 7¾c.
 SUMAC.—Sicily, \$70 a \$80 per tun.
 TALLOW.—American prime, 10½c. a 10¾c. per lb.
 TIN.—Banca, 32c.; Straits, 30c.; plates, \$6.50 a \$9.87½, per box.
 WOOL.—American, Saxony fleeces, per lb., 55c. a 60c.; American full blood merino, 42c. a 52c.; 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 January 26th.

The *Shipping and Commercial List*, says:—"To hear the lamentations which are periodically uttered by persons of a dismal turn of mind over the unhealthy condition of American trade, and to recall the disastrous reminiscences of the sweeping revulsion which overtook us, in common with the rest of the world, three years ago, one might be beguiled into the belief that this country had done growing, and was now standing still. An intelligent study of statistics will dispel that illusion, and show that, in all the elements of substantial wealth and power, our progress is onward."

The Crescent Iron Works, at Wheeling, Va., have contracted to manufacture 4,500 tons of tubular T-rails for the Memphis branch of the Louisville and Nashville Railroad.

Cleveland, Ohio, is becoming one of the largest wool markets in this country. Of 6,762,563 lbs. shipped from that city, the last year, much more than half seems to have passed East from Albany, over the Western Railroad, towards Boston; nearly 1,200,000 lbs., stopping, however, between Pittsfield and West Brookfield, as follows:—Springfield, \$42,004; Pittsfield, 292,209; Palmer, 267,852; Warren, 65,332; Ware, 35,081; Monson, 11,295; West Brookfield, 147,399. The shipment to Boston was 786,021, which was larger by some thousands than the amount sent to New York; thus indicating that Massachusetts is the chief seat of our woolen manufacturers.

Recently the weather has been very mild over the entire country, but the severe cold weather at the end of the old year made sufficient ice to afford a very large crop, which has been carefully housed. The Philadelphia *Ledger* states that 80,000 tons have been stored in that city.

It is not in cotton alone that frauds are committed; hay seems to be as favorable a product for unprincipled persons to operate upon, as the white fibrous product of the South. A petition has been introduced into the New York legislature asking for an inspector and proper regulations in the sale of hay in this city. It is stated in the petition that in three-hundred-pound bales of hay, 40 and 50 pounds of green wood, and sometimes a big stone, are found inside.

Our shipping merchants have petitioned for a space of ground in the Battery Park to erect an observatory, intended for nautical uses entirely. We hope they will succeed; the movement made last year among some of our prominent citizens, to get a great and grand observatory in the Central Park, has produced no fruit whatever; we trust that our shipping merchants will persevere in their efforts until success crowns them.