coloring, and the process by which they are fused, have been known so long that, to change them, requires only the taste and skill of one engaged in the business. The appellants, of course, do not mean to claim any exclusive title to what is so well known. But their specification certainly seems to suggest that the change of color "resembling granite" imparts great value to their invention. They say "the mottled appearance which constitutes the chief merit of our design, and it is on this we place the most importance." The specimen of enameled iron ware exhibited by counsel on the argument was of a color resembling granite, and was marked by spots of different shades darker than granite. The enamel and coloring substances are manifestly liquefied by intense heat, such as enamelers use, until they are completely fused, and they are laid upon the iron ware while in this condition. The spots are then formed at random, in larger and smaller patches, without regard to regularity or design of any kind. No two of the articles are alike, except in color and general appearance. It is undoubted y ornamental to the article, and has a pleasing effect on the eye. This is equally true of the hundreds of objects upon which this art is employed. Ornamental work is great variety, and paintings that never lose their freshness, are executed in enamel. Indeed, the primary object of this art is to impart greater luster and beauty to every article of luxury or utility to which it is applied. A beautiful appearance is not in itself patentable. The design must be new and original, and the work of invention and genius. The ingenuity and taste of workers in enamel are quite wonderful to all but those employed in it; but no one would imagine that these exhibitions of skill, in giving beautiful forms or colors to their productions, was the kind of invention to be protected by the law. They are the common efforts of persons ordinarily skilled in the art. The appellants contend in their brief that "it matters not if the design has been previously used, if now combined with an 'object' with which it has not been hitherto combined; and if, as a result of such association, a new and distinctive aspect is given to such object, the law is complied with," and refers to former decisions by the Commissioner of Patents as cases in point. We cannot concur in this view The thing provided for in the law is, in express language, "any new and original design for a manufacture;" "any new and original design for printing;" "any new and original impression;" "any new, useful, and original shape;" "the same not having been known or used by others before his invention or production thereof." The use of an old design upon an old object is clearly excluded by the statute, and mere changes or "double use" cannotrece'ive its protection.

Besides, it is now well understood that the same degree of originality is required in both design and functional patents. That is, the claim must not be for a copy or imitation of what is already in existence. If, for instance, the applicants should manufacture theiriron ware with a figure of the statue of the Three Graces, it might improve the appearance of the article, but would scarcely entitle them to the benefits of a patent. To manufacture it with enamel is a change of the same kind, for the same thing has been performed on metals from time immemorial. To give the enamel any particular color is a matter of ordinary skill and taste. The coloring substances have always been fused with the enamel in the heat of the furnace. We can, therefore, observe nothing in the present specification to which the term invention can be applied.

I am aware that the Supreme Court of the United States, in Gorham Company *vs.* White, 14 Wall., 524, have said, in regard to design patents, that "they contemplate not so much utility as appearance, and that not an abstract impression, but an aspect given to those objects mentioned in the arts."

That was an action brought for the infringement of a design patent for the handles of tablespoons and forks. The design consisted in the configuration of the spoon and the ornamentation of the handle. The outline and all the details of the design were new, and invariable in each spoon alike. No question was discussed as to the originality of the patent, for it had never been known before, and the court decided that the article manufactured and sold by the defendant did not differ substantially from plaintiff's, and that it was therefore an infringement. But the whole tenor of the decision is to the effect that the appearance or aspect of the object must be of a design that is new and original. Indeed, no other view is admissible, for such is the express requirement of the law.

The decision of the Commissioner is affirmed.

[*Charles M. Moody*, for appellant.
Wm. H. Doolittle, for the Commissioner.]

United States Circuit Court--- District of Massachusetts.

PATENT BOTTLE FASTENER.—HENRY W. PUTNAM *vs.* E. D. WEATHERBEE *et al.*

[In equity.—Before Shepley, J.—May, 1875.]

Where a patent has been a long time in existence, has been renewed by the Patent Office after the expiration of the original term and in the face of opposition, and has been sustained by the adjudications of several of the federal courts, the patentee is entitled to protection by a preliminary injunction, at least until the adjudication of some tribunal shall decide the patent invalid.

Where a motion for an injunction was heard outside the district where the suit was pending, the order withheld until the court should be sitting within the district.

The bottle stopper fastening covered by the Putnam reissue of January 19, 1864, which consists of a piece of wire of U-form with the ends returned and connected to the bottle (in order that the pressure on the cork or stopper may cause the fastener to hold more securely), is not anticipated by the sheet metal U-shaped yoke of the Allender fastening of 1855.

The wire embeds in the cork, under pressure from within, and thus prevents the fastener from tripping; it also presents a change of form which permits the fastener to be pressed off without injury to the thumbs of the operator or to the cork.

Consideration given to the fact that the Commissioner of Patents, in both granting and extending the patent, was aware of the nature of the Allender device, but held that the Putnam fastener contained something more than the mere substitution of a wire U-shaped yoke for a sheet metal U-shaped yoke.

[This was a suit in equity brought for an alleged infringement of reissued letters patent granted to Henry W. Putnam, January 19, 1864, for an "Improvement in Bottle Stopper Fastenings." The invention will be found illustrated in the reported case of Putnam *vs.* Hickey (5 Fisher, 334).

[*W. H. Clifford* and *Thomas H. Dodge*, for complainants.
Benj. J. Thurston, for defendants.]

NEW BOOKS AND PUBLICATIONS.

THE SHOE AND LEATHER REPORTER, devoted to the Trade in Leather, Boots and Shoes, Findings, Hides, Skins, Wool, Furs, Tanning Materials, etc. Edited and Published by Isaac H. Bailey. New York city: 17 Spruce street.

This paper, which is devoted to the shoe and leather interests of not only this city but of the whole country, has changed proprietorship. Isaac H. Bailey, Esq., a gentleman well known to the leather trade in this city, has become its owner. Mr. Bailey was for many years a merchant, and has an extensive acquaintance among our business men, both in the "Swamp" and out of it; and if there is any writer that can make the subjects of leather and boots and shoes interesting to the public, that man is the present editor and proprietor of the *Shoe and Leather Reporter*. Published weekly. Price, neluding, postage, $3.50 a year.

THE MECHANIC'S FRIEND, a Collection of Receipts and Practical Suggestions. By William E. A. Axon, M. R. S. L. With 300 Illustrations. 12mo, cloth. Price $1.50. Copies sent free by mail on receipt of price. New York: D. Van Nostrand, 23 Murray and 27 Warren streets.

This work consists of extracts from the pages of *The English Mechanic*, he nature and scope of which periodical are well known to our readers. The ideas and suggestions are practical and, in many cases, original; and artisans of every class will find much that is useful in its pages.

NATIONAL HYMN AND TUNE BOOK, FOR CONGREGATIONS, SCHOOLS, AND THE HOME. Price 40 cents. Boston, Mass.: Ditson & Co.

The music in this work is that with which every young person should become familiar, since it includes the tunes, old and new, that will be used during the next life-time in public assemblies. The arrangement into four simple parts has an educational value, and either one, two, three, or four parts may be practised and sung. There are more than 200 tunes, with 340 accompanying hymns.

Inventions Patented in England by Americans.

[Compiled from the Commissioners of Patents' Journal.]
From July 7 to August 23, 1875, inclusive.

BREECH-LOADING FIRE ARM.—N. King, Hartford, Conn.
CASTING METALS.—C. Grasser, Somerville, Mass.
CHAIN CABLE.—C. A. Chamberlin, Camden, N. J.
COMPRESSING FLUIDS.—T. S. Disston, Philadelphia, Pa.
DENTAL PLATES.—V. Smith, Schenectady, N. Y.
DISCHARGING GRAIN, ETC.—C. W. Mills, Montclair, N. J.
ELECTRO-MAGNET.—W. L. Powleson, San Francisco, Cal.
FULLING MILL.—W. B. Lodge, Danbury, Conn.
LIQUID METER.—E. Marsland, Sing Sing, N. Y.
LOCM.—J. Fish, New York city.
MAKING BUTTON HOLES.—A. H. Cramp (of New York city), London, Eng.
MOTOR.—J. G. Lane, Millbrook, N. Y.
OVER-SEWING MACHINE.—J. L. Boone *et al.*, San Francisco, Cal.
PLAYING CARDS.—I. Levy (of New York city), London, England.
PRINTING PRESS FEED.—F. Deming, Waterbury, Conn.
REVOLVING PISTOL.—E. Remington & Sons, Ilion, N. Y.
SPINNING RING, ETC.—H. A. Chapin, Springfield, Mass.
STEAM ENGINE.—G. B. Dixwell, Mass.
UMBRELLA FRAME.—J. Horton *et al.*, New York city.
WINDING UP LIFTS, ETC.—V. W. Mason, Providence R. I.

Recent American and Foreign Patents.

Improved Dust Brush.

Henry B. Conant, Geneva Lake, Wis.—The brush portion of the duster, which may be made of feathers, hair, silk, or any suitable material, is attached to springs in bunches, and the springs are connected together so as to form a mutual support for each other, and keep the brush in place.

Improved Claw Bar.

Andrew Shaw, Petroleum, W. Va.—This is a bar for drawing spikes from railroad ties, and for drawing spikes or nails in other places, so made as to allow the clutch jaw to be raised and the leverage obtained, diminished after the spike has been partly extracted, so as to draw the spike clear out.

Improved Car Brake.

Alfred T. Riley, Halleck, Mo.—A lateral band spring of suitable power is seated in side supports near the central bottom part of the car frame, and connected by a rod to the brake-operating lever that is connected to the front drawhead, and to the brake wheel on the tender or locomotive. The drawhead or spring controls jointly the operations of the brakes of all the wheels. When the car is in a state of rest, so that no strain is exerted on the spring and front drawhead, the brakes are all, by the action of the spring on the lever and brake rods, tightly applied to the wheels; but when the cars are coupled and drawn forward, the front drawhead slides forward and releases the brakes by the strain on the spring.

Improved Ironing Board.

Orlando S. Pride, Yonkers, N. Y., assignor to himself and John E. Woodruff, same place.—In using the device, the board is passed into the shirt, and the neck band is turned down into a notch. Portion of a frame is then placed in the said notch to confine the said neck band, and the rear part of the board is raised, and its rear edge is placed against the inner edge of a rear cross bar. The shirt bosom is then drawn straight and smooth, and the frame and the rear part of the board are pressed down. In this way the shirt bosom will be held straight, smooth, and firmly, so that it can be quickly ironed.

Improved Grain Separator.

William E. Torley, Milwaukee, Wis.—The cockle and small wheat pass off from a fine screen to the indented concave sides of a drum for the cockle to fall into the indentations, which will not hold the wheat, because of the elongated form of the grains, so that the wheat will pass off first when the sides turn down with the drum. At the point where the wheat will naturally slide off the plates is a chute, to receive and conduct it into the hopper. A brush in front of the drum brushes back any of the cockle on the front edge of the indented sides liable to slide off with the wheat and throw it back into the pockets.

Improved Corn Sheller.

Solomon Williams, Tehuacana, Tex.—This is an attachment for corn shellers, consisting of a block having a conical cavity with ribs or teeth on the inside, and arranged upon the extended end of a cylinder journal. Its object is to remove the small kernels from the end of the ear, or nub it, before it is put into the sheller.

Improved Horseshoe.

Arthur C. Snowden, South Norwalk, Conn.—This horse overshoe consists of two plates of metal, which are hinged together near the toe, so that the shoe will open and close. The interior plates cover the under part of the foot, but not the frog, for which they are shaped to leave space, and are lapped or shut past each other. Hook flanges on each plate fasten the overshoe to the shoe on the horse. The hinged parts are spread by means of a screw, so that the hooks on the plates will tightly embrace and hold the overshoe to the shoe on the horse.

Improved Welding Compound.

John Scott, Jr., and Amos S. Scott, Coatesville, Pa.—This is an improved welding compound, to be used in the manufacture of iron and steel, and it consists of a mixture of kaolin and sand.

Improved Hat and Coat Hook.

Charles Schoenbein, Brooklyn, N. Y.—This invention consist of a horizontal supporting arm with forked levers pivoted thereto, of which the upper one is weighted at the rear end to bear on the lower lever and open the front ends, which close like jaws on the coat or other article suspended from the lower lever. When the coat is removed, the jaws open instantly by the action of the weighted lever, and are ready for repeated use.

Improved Sharpening Machine.

Andrus S. Weaver, Joy, N. Y.—A reaper knife is fastened to the adjustable table by a cam lever. The table is adjusted by the two eccentric levers and by a spring. The grinding stone is moved back and forth on the knife by a bar and rack and pinion to grind the teeth to the proper level after the knife table has been properly adjusted. A crane is hinged to the plate on which the bar rests, so as to readily move forward and back. The forearm is hinged to the top of the crane. The grinding stone, as well as the reaper knife, may be adjusted to almost any position.

Improved Wind Wheel.

Horace J. Brimhall, Jr., of Millington, Ill., assignor to himself and Samuel E. Foster, same place.—This invention consists of fans shaped like the arc of a circle, and pivoted at the middle of the top and bottom to horizontal arms projecting from the shaft, so that they may swing into radial, or nearly radial, positions to take the wind, and into a circle to close, so that the wheel will not be turned by the wind. The buckets are connected to a slider on the shaft, which is moved by a lever to open and close them for starting and stopping the machine.

Improved Safety Center Pinion for Watches.

Charles R. Bacon and Leuthold C. Brown, San Francisco, Cal., assignors to Cornell Watch Company, same place.—This consists of a center wheel with detachable pinion, having projecting teeth that inclose a spring secured by a spring at one end to a perforation of the center wheel, while the opposite free end of the spring binds pinion and center wheel to revolve in the usual manner, while it turns freely without the center wheel in opposite direction.

Improved Ice Breaker.

Joseph T. Martin, Newark, N. J.—This ice breaker consists of a shaft carrying radial arms. Said arms are rigidly secured to said shaft, and are provided at their outer ends with ax or wedge shaped heads. The whole is mounted in a suitable frame, adapted to be secured to a vessel, and operated so as to cut a passage before the vessel through ice.

Improved Hose Nozzle.

Charles Oyston, Little Falls, N. Y.—This is a hose nozzle for extinguishing fires, so constructed as to divide up the stream of water into a fine spray. A plate, in which are formed a number of annular openings, is connected with three arms, the outer ends of which are connected with the flaring middle part of the shell of the nozzle. A series of concentric ring wedges also are connected together by three arms, and in the outer surface of the outer ring is cut a screw thread to screw into the shell. The ring wedges and arms are cast in one piece, and the said ring wedges are so arranged that their edges may be directly opposite the annular openings in the plate, so as to divide up the ring sheets of water.

Improved Glazier's Diamond.

Philip Sinsz, Baltimore, Md.—The object of this invention is to obviate the difficulty experienced by unskilled persons in securing the right inclination of a glazier's diamond to produce the best cutting effect. It consists in a broad-faced instrument, having at one end a diamond and at the other a guide roller, which latter forms with the diamond the supports of the instrument upon the glass, and keeps the sharp angle of the diamond in proper position for cutting. In between the guide roller and the diamond are different sized notches, which are cut into the face of the metal for the purpose of breaking off the cut portion of the glass.

Improved Steam Boiler.

John E. Jerrold, Meadville, Pa.—The ends of the boiler tubes are flared or spread outward into grooves, and the inwardly projecting edge of the metal around the opening (in the tube sheet) is bent or turned down over the end of said tube, thereby clamping or confining it in place and forming a tight joint, and preventing rapid injury from heat.

Improved Boot and Shoe Calk.

Rufus D. Guilford, St. Charles, Mich.—This calk is formed from a rectangular piece of sheet steel, struck up in suitable dies, whereby its corners are bent or turned down to form spurs.

Improved Indicator for Steam Engines.

Joseph W. Thompson, Salem, Ohio.—The indicator is designed to register the relative amounts of steam pressure exerted on the piston at each portion of its stroke. It is in part an improvement upon the automatic recording indicator for which letters patent of the United States were granted to C. B. Richards, March 24, 1863. The object of the invention is chiefly to reduce the number and weight of the parts composing the recording mechanism proper, and thus correspondingly reduce their momentum when in action, to the end of securing a more perfect record of the several steam pressures existing in the engine cylinder during a given stroke or strokes of the piston.

Improved Injector.

Samuel Fowden, Philadelphia, Pa.—The steam is admitted through an annular opening formed by a water tube and a mixing tube, while the water is admitted through a central tube, the opening through which is regulated by an adjustable spindle. The apparatus for lifting the water consists of valves with hollow stem, steam pipe, and jet.

Improved Middlings Purifier.

Richard W. Gunter, Carrollton, Mo.—The invention comprises a series of flat inclined laterally and longitudinally shaking sieves, placed one above another, with a fan blowing into and through the space under each, to carry off the light matters. Valves are provided to regulate the blasts, and a conveyer is placed under the bottom sieve. There are inclined close bottoms to the sieves, descending toward the fans to carry the middlings back. These have openings at certain intervals for discharging to the fans below. In front are wind breakers to prevent the wind from blowing the middlings back up the bottoms.

Improved Sugar Cooling and Draining Apparatus.

Joseph H. Hynson, Alexandria, La.—This consists of an oblong cooling vessel, with bottom inclined from both sides toward the center, where a longitudinal slot connects with a slotted revolving draining tube, fitting tightly to the under side of the central bottom part of the vessel. When, after the striking is finished, the sugar in the cooler has sufficiently granulated, the process of drainage is commenced by turning the crank until the slotted part of the tube opens gradually toward the bottom slot of the cooler. If the sugar is still warm, the molasses drains rapidly through the narrow crevice without allowing any of the grains of sugar to pass; but if the sugar has cooled and become firmer, the opening between tube and bottom slot may be opened wider for the readier draining of the molasses which has collected by granulation at the central bottom part of the cooler. The molasses may in this manner be drained off more or less rapidly, according to the degree of heat in the sugar.

Improved Car Starter.

Anthony A. Jones, Utica, N. Y.—A ratchet wheel is fixed on the front axle of the car, and a long pawl lever is arranged to operate it. When it is desired to start the car, the front (free) end of the lever is depressed by the driver applying his weight thereto (through the medium of a rod projecting up through the platform) which causes the ratchet wheel to revolve the front axle and thereby the car wheels.

Improved Cotton Sweep.

Manfred Call, Richmond, Va.—The invention consists in a cotton sweep with sharp cutting wings on both sides of a nose or point, inclined with their lower edges in advance, and attached by bolts to the standard as well as the nose flange.

Improved Vehicle Spring.

Henry Jeffrey, Seymour, Ind.—V-shaped bearing springs are interposed between the ends of the flat top and bottom tension springs. Both the flat tension and V-shaped bearing springs are made of semi-elliptic shape, and joined at the outer ends by being bent around the bolts of the clips, to which they are connected. The clips are set into casings of the carriage body and frame. The bearing springs are seated against a solid central shoe part, and retained by crosspins connected by outer links passing sideways.

Improved Shingle Machine.

John J. Kendall, Greensborough, N. C.—The reciprocating driving heads carry two knives and work alongside of stationary heads, against each side of which a bolt is to be held on the table by an attendant. Spring clamps behind the cutters receive the blanks cut off from the bolts between them and the side of the head, to hold them ready for the feeders, which consist of the swinging dogs placed on vertical oscillating shafts. The feeders catch in the sides of the blanks by thin notched and pointed ends, and push them along stationary guides, between shaving cutters, so that when they pass off from the riving heads they drop in front of their ends, to be pushed by them through the shaving cutters. These cutters are open when the blanks are pushed in by the feeders; one closes on the blank just before it begins to be pushed along, and continues to move it toward the other cutter. An eccentric opens the cutters again just before the feeder works, ready for receiving another blank; and immediately after the feeder works, the riving head comes against the blank fed into the cutters, and pushes it forward. The throw of the eccentric may be changed to open and close the shaving cutters more or less, according to the required thickness of the shingles.

Improved Shot Charger for Shot Pouches.

John S. Long, Elkville, Ill.—This is a steel cutting valve with a cleaning ring at the lower end, working through a chamber, which is enlarged on one side of the valve, so as to give clearance to the shot as they are divided without pinching on the blade. Also a series of slots in the upper portion of the barrel, for gaging different charges, are arranged radially to the pivot hole of the lever, to which the valve is connected.

Improved Butt Hinge.

A. H. Isham, Avon, N. Y.—This invention consists in providing each wing with an inclined notch near the upper end and the rising spindle with a doubly inclined lug, so that the spindle will always be drawn down by the action of the wing.