

Grindstones not Extinct.

Some persons may be impressed with the idea that the turning lathe and modern emery wheel have entirely superseded the grindstone; but it appears from a statement from J. O. Mitchell, an extensive grindstone dealer in Philadelphia, that such is not the fact. He says that, at the Baldwin works, no less than 6 grindstones, of 2 tons weight each, are kept constantly running on locomotive work; not only are all the rough castings ground, but 41 of the working parts of an engine are finished in this way. Grindstones are also used for finishing pulleys, which are caused to revolve against the stone, running rapidly in an opposite direction; this grinds down the face of the pulley very fast and perfectly true, and at less cost than turning in a lathe.

PROFESSOR AGASSIZ defends his rejection of the Darwinian theory of evolution on the ground that "his opponents are presenting views on scientific principles which are not even based on real observation; that they have not shown evolution, or the power of evolution, in the present day, and hence are not entitled to assume it in the past." He further characterizes the theory as a "mire of mere assertion."

PRESERVATION BY COLD.—Professor Boussingault states that a quantity of beef tea, having been submitted some eight years ago to a temperature of -20° for several hours, has remained in perfectly good condition up to the present time. Sugar cane juice was at the same time subjected to this treatment, and was found to be in excellent condition. Both substances had of course been kept in closed vessels.

PATENT OFFICE DECISIONS.

TRADE MARKS.—C. E. RICHARDSON ET AL.—APPEAL.

LEGGETT, Complainant. Applicant petitions for the registration of the words "A. Richardson's Patent Union Leather Splitting Machine." It appears that the leather splitting machine he proposes to manufacture and place this alleged trade mark upon has been patented, manufactured, and put upon the market under the above caption during the past twenty years, and that the patent has expired. The Examiner has therefore held that the word "Patent" cannot properly be sanctioned as part of this trade mark, because it would tend to deceive the public and perhaps induce a violation of section 39 of the Patent Act. Applicant then proposes to drop this word, and asks that the words "A. Richardson's Union Leather Splitting Machine" be registered. In the opinion of the Commissioner, the words as originally submitted must be rejected. This does not relieve the case of another objection. The words presented have become the generic name of these machines by which the public now know them. They have been before the country under this caption as patent devices. The right to make them has now fallen into the hands of the public, and why should not the public have the right to use the name by which they are known and which they have acquired by virtue of the patent? When a device becomes public property its name must also. If the word "Union" were now adopted for the first time, it would no doubt in this connection render the name registrable. But it has become a part of the name of the device to which it is proposed to be applied, and therefore registration must be refused.

TRADE MARK.—STERNBERGER VS. THALHEIMER & HIRSCH.—INTERFERENCE.—ADMISSIBILITY OF EVIDENCE.

Parties who employ a word in an experimental way in five or six instances, and take no further steps for three months, do not thereby gain title to it as a trade mark against one who has in the meanwhile adopted it and put it into general use. Neither will the latter lose his right to it because the others procure it to be registered. Upon an interference between an application for the registry of a trade mark and a trademark already registered, evidence was adduced tending to show that the applicant had used the mark in question that he had previously made use of the trade mark. Held, that it was competent for him to prove, although upon the rebuttal, that he had been in the use of it prior to the conversation.

TEACHER, Acting Commissioner. The decision of the Examiner of Trade Marks is affirmed, and the right to a certificate of registration awarded to Sternberger.

DECISIONS OF THE COURTS.

United States Circuit Court—District of Massachusetts.

TAN BARK EXTRACTS.—PINGREE'S PATENT OF OCTOBER 26TH, 1865.—ABEL E. BRIDGE ET AL. VS. EUFUS H. BROWN ET AL.—INFRINGEMENT.

[In Equity.—Before Shepley, Judge.—October Term, 1872.] A patent for an apparatus for making extracts from tan bark by means of exhaust steam, which exhausts in combination an exhaust steam pipe, a leach and intermediate boxes in which the steam is condensed, and also expands so as to avoid back pressure on the piston, is not infringed by a similar apparatus in which there is no exhaust pipe, nor provision for avoiding back pressure, but the steam is taken directly from the boiler.

SHEPLEY, J.: The patent is for an apparatus for making extracts from tan bark and other material not for the process of extracting the tannin, but for an apparatus consisting (first) of the boxes with perforated sides, applied in combination with (second) the exhaust pipe and (third) leach or its equivalent, (fourth) in the manner and (fifth) for the purpose substantially as set forth.

In the state of the art at the date of the invention of Pingree, there was nothing new in the form or structure of his leach, nor in the mode or purpose of its use, apart from the introduction into it of steam from the exhaust pipe of an engine instead of from a steam pipe taking its supply directly from a boiler. The boxes with perforated sides are not claimed except as combined with the exhaust pipe and leach, in the manner set forth in the patent, and for the purpose set forth. This purpose was the utilization of exhaust steam and the consequent saving of fuel in making extracts from tan bark and other materials. There is no evidence in this case that the defendant uses the complainant's combination. They do not use the boxes in combination with the exhaust pipe in the manner or for the purpose set out in the patent, that manner and purpose being in the patented apparatus that the exhaust pipe should conduct the exhaust steam to the leach in such manner that the steam is free to expand, and made to condense partially as it passes from the exhaust pipe into said box, and all back pressure on the piston is avoided, and at the same time the full benefit of the action of the steam on the bark is obtained. Respondents do not use their boxes to conduct exhaust steam to the leach, nor for the purpose of condensing the steam and avoiding back pressure on the piston. They do not use exhaust steam, but take their steam directly from the boiler. They do not use their boxes in combination with complainant's exhaust pipe, for they do not use any exhaust pipe or any equivalent for it. The pipe used by them is like the exhaust pipe of a steam engine, and is not capable of being used for that purpose. The dimensions of the pipe are such as would effectually prevent its use for any such purpose, in connection with the process for which it is used by the respondents. It is contended by complainants that, although the apparatus patented by Pingree is designed for exhaust steam, the patent would cover its use for any other purpose. It is a sufficient answer to this position that it has already been shown that respondents do not use all the elements of their combination as described and claimed in their patent. Respondents' steam pipe is not the exhaust pipe or the equivalent of the pipe described in Pingree's claim. No case of infringement is made out, and complainants' bill must be dismissed.

J. L. Wakefield, for complainants. Dea. & Lincoln and G. L. Roberts, for defendants.

STONE BREAKING MACHINES.—ELI W. BLAKE ET AL. VS. GEORGE W. RAWSON SHEPLEY, J.:

This bill in equity is brought for an alleged infringement of the reissued patent of January 3, 1866, to Eli W. Blake, for a new and useful machine for breaking stones for road and other purposes. The principal points relied upon in the present case, by the learned and able counsel for the respondents, are those which are also set up in the answer in relation to the alleged prior inventions of James Hamilton, as described in letters patent of the United States issued to him on the 3d of January, A. D. 1844, for "Improvements in machinery for crushing and grinding quartz and other hard substances," and also of one Samuel Forward (or Forwood) of Louisville, Kentucky, who constructed a machine for breaking stones for roads in Louisville, in the year 1847. The essential characteristics of Blake's stone crusher are two jaws between which the stones are to be broken, having their acting faces so nearly in an upright position that stones to be broken will descend by force of gravity between them, and convergent downward one toward the other in such manner that while the space between them at the top is such as to receive the stones to be broken, the space at the bottom is only sufficient to allow the fragments to pass when broken to the required size. Although he describes a crank, lever, and toggle joint as one mode, and the mode adopted by him, of communicating a definite motion to the movable jaw from the revolving shaft, no construction can properly be given to the patent, such as suggested by respondents, which would limit it to the toggle-joint mechanism, which is described by the patentee as the particular form in which one element of the patented combination is constructed and embodied in one form of his machine. The machine patented frequently has a broader scope than the particular form of the machine described as

the form used by the patentee. The question of novelty is to be settled by a comparison of prior machines with the machine patented rather than the form of the machine in use.

The Hamilton quartz crusher, relied upon as an invention antedating the complainant's, is a combination of certain elements which, separately considered, do not materially differ from the elements of the combination described in the Blake patent. All the elements of the combination are old in both machines. The novelty in both consisted in the peculiar mechanical combination of the members of the contrivance and the resultant mode of operation.

A careful examination of the evidence in the case, and close comparison of the working models of the two machines, has resulted in forcing upon my mind the same conclusion arrived at by Mr. Justice Nelson, in the case of Blake vs. Stafford, when he says: "Hamilton's quartz crusher neither embodies the arrangement nor mode of operation of the plaintiff's machine, but operates upon a different principle and embodying a different set of ideas."

The Forwood machine is not in existence, and no such machine is proved to have been in existence within twenty years. There is no evidence tending to show that more than one Forwood machine was ever made or used. Only two persons testify to having seen that machine. Only one witness testifies to anything which can possibly be claimed to have been any other than an experimental use. It is difficult to see how Blake could have aided in the development of the ideas embodied in his structure by any suggestions he could possibly have received from Forwood's machine, if that had been in existence and known to Blake when he was developing his invention.

The infringement by the Rawson machine is obvious. Degree for complainants. E. T. Blake, G. W. Baldwin, for complainants. Sherman & Drew, for defendant.

United States Circuit Court—District of Maine. COPYRIGHT IN TITLE.—TRADE MARK AND INVASION THEREOF.—JAMES R. OSGOOD ET AL. VS. EDWARD C. ALLEN.

[In Equity.—Before Shepley, Circuit Judge.—Decided December, 1872.] A title separate from the publication which it is used to designate is not protected by the copyright law. It is only as a part of the copyrighted book and as the title to that particular literary composition, that the title is within the provisions of the copyright act.

The office of a trade mark is to point distinctively to the origin or ownership of the article to which it is affixed. Generic names and those merely descriptive of an article or of its qualities or ingredients, and geographical names which point out only the place of production and not the producer, are not the subject of trade mark. In all cases of invasion of rights to the exclusive use of a trade mark, the essence of the wrong consists in the sale of the goods of one manufacturer or vendor as those of another.

A suit in equity brought by the complainants, proprietors and publishers, at Boston, Massachusetts, of an illustrated copyrighted monthly magazine, entitled "Our Young Folks," an illustrated Magazine for Boys and Girls, against the defendant, publisher at Augusta, Maine, of a semi-monthly paper, also copyrighted, entitled "Our Young Folks" Illustrated Paper. The two publications were in no respect similar, excepting in the use in the title of each of the words, "Our Young Folks."

Upon bill, founded upon alleged copyright and trade mark right in the words "Our Young Folks," filed to restrain the defendant from continuing the publication of his paper. Held, 1. That the complainants had no copyright in the words "Our Young Folks," separate from the copyrighted magazine. 2. That the cause should be referred to a master to ascertain whether the public had been deceived, or was in danger of being deceived, into the belief that the respondents' publication was, in fact, that of the complainants, and thereby led to purchase the same. R. H. Morse, Jr., and R. Stone, Jr., Butler & Fessenden, of Portland, for plaintiffs. Cassien Brown and J. S. Holmes, A. R. Strout, of Portland, for defendants.

NEW BOOKS AND PUBLICATIONS.

MYSTERIES OF THE VOICE AND THE EAR. By Professor O. N. Rood, of Columbia College, N. Y. C. C. Chatfield & Co., 460 Chapel Street, New Haven, Conn.

A neatly gotten up edition of Professor Rood's excellent lecture. The pamphlet forms No. 10 of the well known "University Series" which the above named publishers have been issuing for some time past.

THE PRACTICAL MAGAZINE; an Illustrated Cyclopædia of Industrial News, Inventions, etc. London. James R. Osgood & Co., Agents, Boston, Mass. Monthly. \$1 per copy; \$10 per annum.

We have before referred to this mammoth English monthly, and have given our readers a general idea of the abundant supply of useful, valuable, and interesting matter with which its pages are replete. The printing is far above the level of our ordinary industrial monthlies, and the illustrations, several of which are selected from our own columns, are of uniform excellence throughout. We welcome the new comer in the field of industrial journalism, and cordially wish for it every success.

We are in receipt of the February number of the PEOPLE'S MONTHLY of Pittsburgh, printed in new type, and on tinted paper. It has no less than eight engravings, some of them being very beautiful. The two famed poems, the "Wonderful One Horse Shay" (O. W. Holmes) and the "Barefoot Boy" (Whittier), are both illustrated in this attractive number. The "People's Monthly" is a pure, wholesome, and attractive home paper, and well deserves a generous western support. Charles McKnight, publisher, 84 F 5th Avenue, Pittsburgh, Pa. Price \$1.50 a year.

PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION at the Twentieth Annual Meeting, held in Cleveland, Ohio, September, 1872. Philadelphia: Sherman & Co.

This volume is of interest and importance to the pharmaceutical profession, and many of the papers contained therein are of permanent value, containing much information.

THE CHICAGO RAILWAY REVIEW makes its appearance in quarto form, with new and elegant typography. It is a valuable journal, ably edited and always interesting.

GEORGE P. ROWELL & Co.'s GAZETTEER, containing a Statement of the Industries, Characteristics, Population, and Location of All Towns in the United States and British America, in which Newspapers are published.

This well compiled work will be useful to all who want to advertise (and who does not?), and trustworthy information as to different localities will be found therein.

THE ADMINISTRATION OF JUSTICE UNDER MILITARY AND MARITAL LAW. By Charles M. Clode, of the Inner Temple, Barrister at Law. London: John Murray, Albemarle Street. New York: Scribner, Welford and Armstrong, 654 Broadway. Price \$6.

The author of this work has for many years been the legal adviser of the British War Department, and has published several works on cognate subjects. The book now before us is an exhaustive treatise on the relations between military and civil authority, and on the constitutional considerations involved in the arbitrary administration of affairs necessarily resorted to in time of war.

Inventions Patented in England by Americans.

(Compiled from the Commissioners of Patents' Journal.)

- From January 18 to February 8, 1873, inclusive. ANIMAL TRAP.—R. E. Dietz, New York city. BOOT SEWING MACHINE.—L. R. Blake, Fort Wayne, Ind. BREACH LOADING FIRE ARM.—J. Broughton, Brooklyn, N. Y. CARBONIC OXIDE, ETC.—L. Stevens, Washington, D. C. CLOTHES WRINGER, ETC.—S. G. Corlies, New York city. DRESSING MILLSTONES.—S. Dean, La Crosse, Wis. FIREPROOF SAFE.—J. W. Warren, Oneida, N. Y. FIRE ALARM, ETC.—A. F. Johnson, Parkville, N. Y. FIREPROOF VAULT.—J. W. Warner, Oneida, N. Y. HINGE, ETC.—F. W. Nichols, Lynn, Mass. FORCING LIQUIDS BY STEAM.—W. Burdon, Brooklyn, N. Y. LAMP.—R. Hitchcock, et al., Watertown, N. Y. LECTURER'S APPARATUS.—R. G. Wells (of New York city), London, Eng. LOCK WASHER.—J. Purdie, Buffalo, N. Y. MAKING STEEL.—T. H. Alexander, Washington, D. C. MOTIVE POWER, ETC.—O. J. Backus, A. F. Sawyer, San Francisco, Cal., A. M. Loryea, East Portland, Oregon. RAILWAY BRAKE, ETC.—J. Y. Smith, Pittsburgh, Pa. REFRIGERATOR.—S. B. Martin, J. M. Beath, San Francisco, Cal. RIFLING GUN BARRELS.—H. Berdan, New York city. SCOURING WIRE, ETC.—G. Broomhead, Paterson, N. J. SIFTING SHOVEL.—G. W. Dean, New York city. SPINNING MACHINERY.—H. T. Potter, J. G. Lamb, Norwich, Conn. TORPEDO LAUNCHES.—H. J. Smith, Boston, Mass. WHITE LEAD, ETC.—A. P. Meylert, New Britain, Conn.

Recent American and Foreign Patents.

Improved Cotton Press.

Peter K. Dederick, Albany, N. Y.—This invention consists of a press so contrived that the bale is sacked at the same time it is pressed, by having the prepared sack gathered on the open end of a short pressing case, or on a holder of any kind, in connection with the pressing devices, so that the pressing and filling are accomplished simultaneously. This invention also consists of a movable press head against which the pressing is accomplished and which recedes from the follower as the pressing progresses under the control of a friction brake which regulates the measure of the compression.

Improved Mechanical Movement.

Charles W. Carr, Paola, Kansas.—This invention consists of a cam with three or five leaves or tappets and a connecting rod with a toe on each of two opposite or nearly opposite points across the axis and fronting the face. It is arranged in such manner that while the tappets or leaves act upon one toe the other is clear of them, and vice versa. Each toe is alternately acted upon, one being driven one way and the other the other way, so that three or five double movements of the connecting rods are obtained to one revolution of the cam. The contrivance is designed more particularly for operating the cutter bars of mowing machines and harvesters, but is applicable to other machines.

Improved Cover for Pitcher.

Walter Bradley, Providence, R. I.—The object of this invention is to provide means for keeping pitchers or cups for containing milk, water, sirup, or other substance closed when not in actual use, and it consists in a cover which is automatic in its action.

Improved Door Check.

Alexander Hanna, Dover, Ky.—This invention consists of a double hooked plate pivoted to a bracket projecting from the base or mop board, both so arranged as to receive the edge of the door between them when it swings back, and to swing back a little with it and drop into a notch, by which the door will be prevented from striking against the wall and held from swinging shut. The invention also consists in having this bracket jointed together near the breast plate to swing up and be supported out of the way of sweeping the floor, etc., when required.

Feeding Screen for Bran Dusters.

George S. Cooper, Baraboo, Wis.—This invention is in the arrangement of the shoe of a bran duster, the same having a perforate and imperforate portion, or spring supports, to be actuated in a forward and backward direction by an eccentric on the duster shaft, the said spring supports and the actuating apparatus being arranged to allow the shoe to be adjusted vertically either at one or both ends.

Improved Railroad Rail Joint.

James M. Clem, Opelika, Ala.—This invention consists of a flat pin or bolt with a slot near through the point, which is used in place of the ordinary screw bolt to fasten the fish or joint plates, the bolt being fastened by a key and spring washer instead of the ordinary nuts and fastenings therefor, the key having a notch in the outer edge, so that a shoulder above and below the bolt becomes locked when the key is driven in, so that it cannot work loose.

Improved Spool Box.

Julius C. Bohn, Centralia, Ill.—This invention consists of a small box with several partition plates within and supports, for the ends of said partitions adapted for dividing the inner space into narrow spaces of different widths, suitable for containing several spooling end to end, so as to roll when the thread is pulled. One side of the box, parallel with the rows of spools, has a number of notches in the upper edge, through which the threads from the spools may be drawn as required for use, the ends being left hanging out sufficiently to afford a hold for pulling out when thread is wanted.

Improved Screw Propeller.

Newton A. Patterson, Athens, assignor to himself, McKendrie F. Miller and Landon N. Miller, Rheatown, Tenn.—The invention relates to screw or spiral propellers, and consists in making the blade concavo-convex, with pointed extensions on the inner sides, and adapted to be arranged some distance from shaft and in planes oblique or spiral thereto. By this construction and arrangement the centrifugal tendency of the water is claimed to be overcome, while it is packed and forced out at the kite tail toward the axis of motion.

Improved Music Portfolio.

Frank C. Schumann, New York city.—This invention has for its object to furnish an improved portfolio for sheet music, which shall be so constructed as to adapt it for use as a rack for supporting a piece of music while being used, and it consists in the combination of a bracket with the side plates of an ordinary portfolio.

Improved Street Car Coupling.

John Stephenson, New York city.—This invention relates to a new and useful improvement in cars for street railways, and consists in the construction and arrangement of the draw pin and extension thereof, the draw head, and the keeper and spring. The pin is at all times under the control of the driver, so that it can be drawn at pleasure, and much more readily than in the ordinary manner. The shoulder stop above and below the keeper, with the spring on the opposite side, retains the pin in its proper position whether it is up or down.

Improved Angling Reel.

Charles L. Noe, Bergen Point, N. J.—This invention consists of a fan regulator with gearing connecting it with the reel gear combined with the reel, to prevent it from overrunning the line by its momentum when the hook is cast.

Combined Horse Rake and Tedder.

Geo. L. Ives, Rome, N. Y.—This invention consists of a hay tedder attachment to the truck of a hay rake for which a patent was granted to the same inventor August 13, 1872, No. 130,481. Said attachment includes a shaft (with arms attached for stirring or turning the hay) journaled in bearings or boxes swiveled in the rear ends of arms, whose forward ends are jointed to the wheeled truck shaft, and also to an intermediate frame, which latter is adapted to be readily connected to and disconnected from the truck, so that it may be made to alternate, in practical use, with a common wire rake attachment, which the truck is otherwise constructed to carry and operate.

Machine for Sharpening Gin Saws.

Jasper M. Bailey, Meridian, Miss.—This invention has for its object to furnish an improved machine for sharpening gin saws while on their shaft. The invention consists in constructing a file holder having a turned up end, which is connected by a link with the crank of a drive wheel, so as to give a reciprocating motion in the smallest space and without friction.

Improved Hand Planter.

Sidney S. Stults, Cedar Bluffs, Neb.—The invention relates to improvement in the class of walking corn planters. A staffs arranged with a handle at the top for carrying in the hand of the operator walking along the ground. In the bottom of the grain box is a grooved piece, in which a curved dropping slide, with a pocket for receiving the seed, works to draw it out of the grain box under a brush into the tube through which it falls to the space between the jaws. The latter make the hole in the ground by the staff being forced down, and they are opened by swinging the upper end of the staff forward so that the foot strikes the ground to arrest the forward movement of a lever, which carries one jaw. A spring throws the lever and slide forward and closes the jaws when the planter is raised out of the ground after one operation to be swung forward for the next.

Improved Rocking Chair Fan.

Alois Nisles and Josef Schöberl, New York city.—This invention relates to a new manner of connecting a rocking chair with a fan, so that the latter may be rotated alternately in opposite directions by the oscillating motion imparted to the chair, and consists in the application of a weighted lever to one of the chair rockers, and in its connection with an endless cord which passes over a pulley on the spindle of the rotary fan. The lever rests with its weighted end upon the floor, and remains thereon; and, consequently, as the chair is rocked, the relative positions of the rocker and lever will be changed, and the cord, which passes over the friction roller hung on the rocker, will be drawn over the roller and pulley, so as to rotate the latter and revolve the fan.

**Improved Animal Trap.**

Frank Flora, Piercc, O.—This invention has for its object to furnish an improved animal trap, which shall be so constructed that the animal can not have his foot thrown from the trap in springing it, and so arranged that the animal can not draw his leg out of the jaws of the trap by eating off his foot. The invention consists in the jaws made with a rabbet or flange upon their inner sides, and in a toe formed upon the shank of the bait pan to catch upon the jaw in setting the trap.

**Improved Lumber Chute.**

William Van Name and James A. Wakefield, Chippewa Falls, Wis.—This invention consists in the construction and arrangement of a log chute with a double gate hinged together. It is arranged upon the bottom of the way between the side pieces with a water space under it, to which a passage is provided from the head of the chute to admit water under the hinged gate in order to regulate the height of the dam, which the hinged gate constitutes when raised by the water below it. There is a passage to let the water escape from under the hinged gate when the dam is to be lowered. The invention has already been in operation, a chute having been erected with a slide 130 feet long, with a timber apron 45 feet, and fingers, or bars, projecting on to the surface of the water 40 feet, making a total distance of 215 feet. The apron allows the water to escape at the sides, and thereby deadens the force with which the lumber descends; and the fingers deliver the sticks horizontally on to the water, preventing their submerision. These operations are regulated by the amount of water let into the slide by the gate, and the inventor claims that the control of the descending lumber is perfect.

**Improved Bedstead Fastening.**

Joseph F. Mancha, Kildgely, Md.—This invention has for its object to furnish an improved fastening for bedsteads which shall hold the parts of the bedstead securely and shall enable the bedstead to be easily put together and taken apart. The invention consists in a fastening, formed of the casting for the post having a slot formed in its closed lower end, and shoulders formed upon the upper ends of the sides of its open upper end. The top casting for the side rail has shoulders formed upon its side edges, and the bottom casting for the side rail has a downwardly projecting flange formed upon its forward edge, said parts being constructed so that the strain comes upon all the screws laterally, which greatly increases the strength of the fastening.

**Improved Spindle Bolster for Spinning Machines.**

Charles F. Wilson, Northbridge, Mass., assignor to himself and Jesse E. Folk, Brooklyn, N. Y.—This invention relates to lubricating bolsters for spindles of spinning frames, and consists in an arrangement of a sleeve or box having a reservoir on its upper end for receiving the oil, and central perforations and tangential plates or lips for co-operating with an inverted conical or tapered tube secured to the spindle to cause the lubricant to maintain a constant circulation, not only from the reservoir downward until the same is empty but subsequently in contact with a portion of the spindle.

**Improved Carriage.**

Thomas B. Patten, West Amesbury, Mass.—This invention relates to that class of buggies in which the top is supported upon fixed standards above the body; and it consists of standards with branches at each end secured by bolts passing through the branches and screwing into plates or nuts attached to the buggy body or top. The plates have two holes for both the bolts of a standard, and the bolts being of square or other shape at the head are adapted for being turned by a wrench. This mode of fastening the standards to the body not only facilitates the removal of the top when required, but it greatly strengthens the body.

**Improved Land Roller.**

John Woolridge, Dean's Corners, Ill.—This invention has for its object to furnish an improved land roller, which shall be so constructed that it will adjust itself to the surface of the land being rolled, which shall be of lighter draft and more readily turned than rollers constructed in the ordinary manner. And it consists in the cross bar with which the rollers are connected, made in two parts and connected with the tongue. It consists, secondly, in the mode of holding the rolls so that they will have a convenient lateral end movement, and in a mode of construction for locking and unlocking automatically the two sections of connecting bar.

**Improved Band Saw Gang.**

Henry Sillman, Brooklyn, N. Y.—This invention has particular reference to the mode of adjusting the saws of band saw gangs. The arrangement of the saws on separate pulleys, having separate and independent shafts, allows them to be strained and adjusted separately, to suit the various purposes to which they may be applied. These saws are constructed either with or without teeth, to adapt them for sawing either wood, marble or stone.

**Improved Packing Box.**

Ludolph A. Fullgraff, New York city.—This invention consists of a packing box formed, as to its sides or body, of wood, and as to its top and bottom, of paper, thus constituting a new article of manufacture, cheaper and lighter than other boxes of its class, and yet equally serviceable.

**Improved Weather Threshold.**

John W. Kramer, Bloomsburg, Pa.—The invention relates to improvements on the door strip for which United States Letters Patent numbered 106,835 were granted to the same inventor August 30, 1870. The present invention consists in a new manner of connecting each door strip with a spring lever in the side of the door case, by means of which the strip will be raised in a more perfect manner when the door is shut.

**Improved Horseshoe Nail Machine.**

James Mills, Keeseville, N. Y.—This invention relates to the horseshoe nail machine patented to H. E. and C. W. Woodford, October 30, 1866. In one machine the inventor unites the advantages of the revolving roller hammer and the intermittingly revolving anvil, by which, together with the striking hammers, he claims to make the device perform nearly double the usual amount of work.

**Apparatus to be used in connection with Coal Car Elevators.**

Phillip H. Lamey, Wisconsin, Pa.—The invention relates to car elevators but more particularly to such as are employed in transferring coal from the bottom of mines up a slope and to a landing, from whence it is discharged. The invention consists in a pivoted stop, which is operated simultaneously with a signal to the engineer, by a single topman who stands on the landing, in pushers arranged in the car to carry it forward to the beginning of the slope after the mules have been removed; in a truck arranged in a pit below the level of the car track to work the pusher; in making a longitudinal channel through the middle of the truck, to allow the rope to play vertically according to the positions of the car, and, laterally, according to the position of the rope on the drum; also on a novel catch pivoted over the rope channel, bifurcated and curved to allow the transfer of the truck to the discharge end of the landing at the same time with the car; in arranging a rising track up which the pusher is moved to take its proper position against the bumpers of cars; in pivoting the rising track which brings the pusher into proper position behind bumpers of car, to the end of the upper track, and allowing it to take its position on the lower track, so as to rise and fall automatically, and in placing a friction disk on each side of the pulley on which the rope rests, and friction slides on the bottom of the car to prevent the rapid wear which otherwise takes place on the wire ropes.

**Improved Lifting Jack.**

S. Spencer Eccleston, South New Berlin, N. Y.—This invention relates to an improvement in the class of wagon jacks whose lifting lever is provided with a pawl operated by a rod extending to the handle portion thereof; and the improvement consists in the arrangement of parts, whereby the hand of the operator is, in practice, applied simultaneously to both the main lifting lever and the lever for holding the pawl engaged with the toothed rack of the vertical standard. By this construction the pawl may be operated from the rear end of the lever, however long said lever may be, thus allowing the lever to be made of any required length to obtain any desired leverage.

**Improved Hat Stretching Machine.**

Samuel Goodman, Natick, Mass.—This invention has for its object to improve the hat stretching apparatus which is described in the patent of Rudolph Eickemeyer, issued February 28, 1865, numbered 46,853, and reissued December 1, 1868, numbered 3,217; and the invention consists in the use of a jaw for hat stretchers having a curved convexity on its working face, and on its rear face end a spring rod connecting it with an arm, so that the hat may be stretched from the tip downward.

**Improved Fire Kindlers.**

John Y. Marks, Rochester, Pa.—This invention relates to compositions used for igniting fires; and consists in pulverized cannel coal, melted resin, sawdust and alcohol. The resin is melted in any suitable vessel, and the powdered cannel coal, sawdust, and alcohol are added while the resin is hot, so that the ingredients may be thoroughly mixed together. When thus mixed the composition is spread out while it is in a semi-fluid state, and cut into pieces of suitable size for use. The fire kindler thus prepared emits no odor, and may be kept in any part of the house.

**Improved Railroad Track.**

Daniel S. Tutill, Newburgh, N. Y.—This invention consists of a short rail alongside of the main rails at the joints, either inside or outside of the two rails of the track, and wheels adapted to transfer the weight of the cars or the principal portion of it to these short rails while passing the joints of the main rails, to avoid the pounding and jarring due to the springing of the ends of the rails as the wheels pass over them.

**Improved Tug Fastening.**

Jonathan Turley, Mitchell, Ind.—The invention consists in a mode of connecting the traces and whiffletree by which horses draw a vehicle, plow, or cultivator, so that no outer projection can come in contact with another object and catch thereinto. Near the rear end of the trace is applied any suitable hook. The whiffletree is provided with an end sleeve and loop, having their front edges in the same vertical plane. The snap hooks being placed in the eyes, the trace presents a smooth outside, and its rear end projects backwardly a little beyond the end of swingle tree. By this arrangement it is impossible that the end of swingle tree or of the snap hook can catch on any object whatever.

**Improved Spindle Step for Spinning Machine.**

Charles F. Wilson, Northbridge, Mass., assignor to himself and Jesse E. Folk, Brooklyn, N. Y.—The invention is an improvement in lubricating devices for spindles of spinning frames, and has reference to the construction of the case or holder for the spindle step. The step is placed in an oil reservoir or shell. The step box is made from a solid piece of metal, bored out for the step of the spindle and for the passage of the oil. The oil is introduced into the reservoir through an orifice in which a lip is made in punching, against which the tube of the oil can will strike instead of striking the spindle. Holes are bored from the top of the step box to a point a little below the bottom of the spindle orifice connecting with a small hole bored to the center of the spindle orifice. The step of the spindle is beveled to an angle of about forty-five degrees, so that the oil which is forced up through the small hole readily spreads and perfectly lubricates the extreme end of the spindle. The oil reservoir may contain more or less oil; it may be filled to near the orifice, so that the step of the spindle will always run in oil. The top of the oil reservoir is turned in around the spindle so as to exclude lint and dust. The step box is confined in the bottom of the shell and the latter is confined in the rail, so as to correspond in position with the spindle bolster in the rail above.

**Improved Baking Pan.**

Among the recent patents is that of R. D. McDonald, Jersey City, N. J., for his Excelsior Roasting and Baking Pan, which we have given a practical trial. It consists of an ordinary oven pan for baking bread, roasting meats, and other articles of food, the principal novelty being in a convex cover which fits tightly over the pan, and by its convexity forms a vapor chamber above the food. The cover is provided with a suitable fastening by which it is locked upon the pan, and also with a small valve. When bread, poultry, meat or other food is placed in the pan and deposited in the oven, the vapors arising therefrom are confined, and the cooking is carried on at a low temperature, which is essential to good cooking. Our experience is that food placed in this device is well cooked and improved in flavor. It ought to have a place in every household, for it is a valuable addition to the utensils of the kitchen.

**Improvement in Feeding Sheets of Paper to Printing Presses.**

By S. Schofield, Providence, R. I., and Charles E. Baker, Mt. Clair, N. J.—These inventions consist in pressing upon the top sheet of a pile of paper with a non-penetrating point or instrument while the sheets are being moved, so as to cause the instrument to tear through the sheet and retain a slight chip under the point, the friction between the top and second sheets being thereafter insufficient to move the second sheet from under the pressing point, practically holding the second sheet, through the first, while it (the first sheet) is being removed. The removal of the top sheet, after this process of separating it from the second one, is accomplished in various ways, according to the nature of the pressing points, which are made differently for different machines on which the paper is to be used. These inventions, if practically successful, will materially simplify the business of printing and do away with much of the annoyance heretofore experienced from the carelessness and incompetency of the hands employed in press rooms.

**Improved Plane Agraffe.**

Charles F. Chickering, New York city.—The invention consists in dispensing with the bridge which is usually placed back of the agraffe, and furnishing the required double support by two points in the agraffe itself.

**Improved Track Lifter.**

Aug. H. Arnot, Morristown, Tenn.—The foot piece or base of this implement, which in its general form is somewhat similar to ordinary lifting jacks, is formed of two parts, and is long, narrow, and beveled at its front end to adapt it to be thrust beneath the rails of a track. The lever is pivoted between the two parts, and a pawl is pivoted to the vertical standard to adapt it to engage with ratchet teeth formed on the handle or power end of the lever. The implement is light, strong, and efficient, saving much and severe manual labor.

**Improved Ditching Machine.**

William T. Hoskins, Livia, Ky.—In this invention a wedge-shaped ram, operating to form a drain or ditch by compression, is mounted in a traveling frame, which receives a progressive movement at the end of each stroke by devices actuated through the same mechanism which elevates the ram for a repetition of the stroke.

**Improved Rotary Steam Engine.**

Dr. John F. Early, near Ruckersville, Va.—The invention consists in combining, with the piston wheel of a rotary steam engine, a series of rotary valves that are brought by pistons into such a position as to admit steam and act as an abutment thereto while actuated by cams on the piston wheel to cut off steam at any desired point.

**Improved Construction of Books.**

John C. Bonnell, Burlington, Iowa.—The invention consists in making a blank book with one full folio, while the rest are cut out, and in filling the vacant space with a block.

**Improvement in Butter Pails.**

Much difficulty has been heretofore experienced in the production of what are known as return pails, for farmers' use, for want of a simple but secure mode of fastening the cover. In the transport of so weighty an article as butter, everything about the package must be very strong; and it must be tightly closed, otherwise the butter will be exposed to damage; the fastenings must be simple and strong, or they will soon become disordered and useless. These difficulties are all overcome in the improved fastenings and butter pails made under Decker's and Westcott's patents, by the Orange County Pail Company, 179 Readstreet, New York, who are now supplying the market with a reliable and excellent article.

**Improved Packing for Piston Rods, etc.**

Leopold Katzenstein, New York city.—This invention relates to improvements of the packing described in letters patent No. 105,462, and dated July 19, 1870. The object of the present invention is to insure the proper adjustability of the rings and also to facilitate their insertion within and removal from the packing box. The invention consists in forming the cuttings with spaces between the ends of their several sections, and also in providing them with screw sockets to permit the application of screw rods for the insertion and removal of the rings.

**Improved Sheep Helder.**

Samuel Tucker, Wabash City, Ind.—The object of this invention is to provide convenient means for holding sheep while they are being sheared; and it consists in a frame or holder attached to the table or bench, so constructed that the legs of the sheep are secured by clamp bars confining the sheep on its side in a humane manner convenient for the shearer.

**Improved Lock for Sewing Machines.**

Edward L. Gaylord, Bridgeport, Conn.—This invention has for its object to furnish an improved sewing machine lock which shall be so constructed as to require no second hole in the striker plate to receive a steady pin to prevent the case from sliding upon the table; and it consists in the combination of a fixed projecting plate or steady pin with the locking hook of the lock.

**Improved Universal Joint Coupling.**

Henry B. Whithead, Holly Springs, Miss.—This invention consists in the use of hemispherical gears forming the contiguous ends of two shafts, which are hung in sleeves, and the combination therewith of slotted, pivoted side plates or links and adjusting screws, all suitably arranged to permit the shafts to be set at an angle to each other, and yet permit their rotary movement at said angle in like manner as when the same are in alignment.

**Improved Combined Blind Opener and Slat Regulator.**

Adin Ball, Milford, Mass., assignor to himself and Charles P. Nelson, of same place.—This invention has for its object to furnish improved fixtures for window blinds which shall be so constructed that the blind may be opened and closed to any desired extent without raising the sash, which will hold the blind securely in any position into which it may be adjusted, and which will close the slats automatically when the blind is closed.

**Improved Device for Feeding Stoves.**

Bernard Connelly, Williamsburgh, N. Y.—This invention has for its object to furnish an improved coal scuttle, so constructed that the coal may be introduced into the stove in such a way as to prevent the escape of gas. The upper part of the body of the scuttle is made in the form of an inverted frustum of a cone, and its lower part is made in the form of a cylinder and of such a size as to enter the hole in the top of the stove. The cylindrical part of the body is provided with an outwardly projecting flange, to rest upon the top of the stove and support the scuttle. The cover of the scuttle is made in two unequal parts. The smaller part is made fast to the upper edge of the body, and to its edge is hinged the edge of the larger part. The bottom of the scuttle is made in two parts, which may be equal in size. One part of the bottom is stationary, is placed in an inclined position, and its edges are secured to the body. To the lower edge of the stationary part of the bottom, is hinged the edge of the other part in such a way that the said hinged part may be swung above and below a horizontal position. To the hinged part of the bottom, near its outer or free edge, is secured the end of a chain which passes up through a hole in the stationary part of the cover, and has a cross bar or other stop attached to its free end to keep it from being accidentally drawn through. The hinged part of the bottom is supported in a horizontal position by passing a pin through a link in the chain above the stationary part of the cover. In feeding the stove, the covers removed from the hole in the top of the stove, and the cylindrical part of the scuttle is inserted in said hole. The locking pin is then withdrawn from the chain which allows the hinged part of the bottom to drop.

**Improved Coffee Pot.**

Edward Heinson Huch, Brunswick, Germany.—This invention consists in the arrangement of a pot which is set over a lamp, or over a gas flame, and closed air-tight by means of a cover, the rim or flange of which dips down into water contained in a deep trough that is formed around the pot. The lid of the pot is connected with the regulator of the lamp or gas flame. When steam is generated within the pot, the lid commences to rise, and, acting upon the regulator, it causes the flame to be decreased in size until the steam ceases to be generated with sufficient rapidity to raise the lid higher. This pot has an inner vessel fitting closely within it at the upper part, and this inner vessel has a perforated bottom, covered with felt, flannel, or similar material, on which the coffee rests. A pipe descends through the perforated bottom of the inner vessel, nearly to the bottom of the pot. When the water in the pot boils, the pressure of the steam drives the water up the pipe into the upper vessel, and over the coffee. The water then comes in contact with the lid. The lid is made to enter and descend some distance into the inner vessel. When the water rises up to the lid, the lid floats. Being thus lifted, by means of apparatus connected with it, it extinguishes the flame beneath. The steam in the lower part of the pot condenses as the pot becomes cooler, and the vacuum so formed causes the water to descend through the coffee, and the infusion is then ready to be drawn off for use.

**Improved Tube Welding Machine.**

James Sadler, New York city.—This invention consists in a machine for facilitating the operation of welding tubes, more especially designed for the tubes of steam boilers, which have failed at their ends and been reversed. With this apparatus it is claimed that one man only is required, and he alone can weld a tube in much less time and in a more perfect and workmanlike manner. The tube to be welded is heated in the forge, resting on a bracket of the forge and on a lower die. The end of the tube is expanded and the piece of tube being inserted previously, when a welding heat is obtained the tube and piece attached are slipped along the die so that a ball slipped on or formed on the rod will be directly under the joint. The hammer is now applied to the shank of the upper die with light quick blows while the tube is revolved by the other hand of the operator. Springs raise the upper die from the tube slightly, so that the tube may be readily revolved.

**Improved Refrigerator for Preserving Butter, etc.**

George B. Rohrer, Oxford, Ohio.—This invention consists of a refrigerator of double walls, with a space between packed with wool for the non-conducting substance. The interior is made in three compartments, in the middle one of which the ice is placed. The others are made of larger dimensions and contain metal pans on which are flanges which hold them in place, and cause them to fit snugly within the walls of the compartment. The sides and bottoms of the pans are provided with strengthening ribs. Three or more pans will be placed in a chamber, one above another, shallow pans being preferred. To divide the butter in small packages, in which it is preserved better than in large ones, the pans will not be filled quite full. They have a series of ventilating holes in the sides, a little below the top, for the cold air to enter, while the warm air escapes over the top.

**Improved Pavement.**

Milton E. Worrell, Monmouth, Ill.—This invention has for its object to furnish an improved pavement for sidewalks. Iron plates are formed of suitable size, and with cells in their upper sides to receive wooden blocks. The partitions between the cells should be made to make the cells tapering, so that the wooden blocks may be driven into them. The plates are made with downwardly projecting flanges upon their side edges, and with downwardly projecting cross flanges, and are also strengthened by brace or stay rods. The sections are secured to each other by bolts passing through the side flanges, rubber or other elastic packing being interposed between them, of sufficient thickness to enable the sections to expand and contract with changes of temperature without breaking them or loosening or weakening the pavement, and always keeping a water-tight joint. The pores of the blocks should be filled with asphalt or other substance that will prevent the water from soaking in.

**Improved Device for Making Cigarettes.**

Hugo Gerike, Berlin, Prussia, assignor to Bruno Harrass, Böhlen, Germany.—This invention relates to a new machine for filling cigarettes without touching the tobacco with the fingers, and which can be used by smokers to make their own cigarettes, and also by manufacturers. The invention consists chiefly in the use of a spiral tobacco feed, arranged to rotate within a tube and combined with a movable guide or needle stopper thereon, all arranged to operate automatically when the spiral blade is turned. The tobacco receptacle being filled with tobacco, ordinary cigarette wrappers are next prepared, large enough to pass easily over a small cylinder. The length of the wrappers must be the length of the cylinder inclusive of the stopper. The wrapper is pushed over the stopper and down over the cylinder, an easy operation, as the stopper is somewhat coniform. The pouch is next taken hold of near the bottom with the left hand and pressed slightly. A handle or crank is next turned with the right hand toward the right. This causes a spiral blade to be revolved and to screw tobacco into the tube against the stopper. The tobacco in fact is forced out of the tube and raises the stopper to which the paper wrapper adheres. Thus the wrapper is filled with tobacco. When the wrapper has been entirely filled it is automatically detached from the tube to make room for another. During the motion the wrapper is guided by a needle.