

NEW INVENTIONS.

The following are some of the most prominent of the patents issued this week, with the names of the patentees:—

CARBURETING APPARATUS.—JAMES MCGEARY, Salem, Mass.—This invention relates to an apparatus or attachment for pipes used for conducting gas, more particularly the object of which is to increase the illuminating power and quality of the gas, as it passes through to be burned or consumed.

GATE HINGE.—L. E. WOODWARD, Cohocton, N. Y.—This invention consists in elongating the eye or pintle hole of a gate, hung in such a manner that it will allow the eye a longitudinal play upon the pintle, whereby the forward end of the gate may be raised and lowered for opening and closing it, thus dispensing with the use of latches and the like—a rigid catch being used, as well as preventing all sagging of the gate upon its hinges when it is closed.

GARDEN CULTIVATOR.—JOEL A. HALL, Columbus, Ohio.—This invention consists in so constructing a machine that any kind of grain may be sown in drills in any desired quantity. The machine is also provided with cultivator teeth or shovels of any desired form for covering the grain or eradicating the weeds and loosening up the ground.

GANG AND SUB-SOIL FLOW.—R. L. DODGE and E. M. WALKER, Gallatin, Mo.—This invention consists in constructing a gang of plows and arranging them in beams, and attaching them to a frame in such a manner that they may be either used for surface plows or for sub-soiling.

WOOL TYER.—O. C. McCUNE, Darby Creek, Ohio.—The object of this invention is to provide in a cheap and simple manner, a device by which the fleeces of wool after it is shorn may be closely pressed and tied in a small space, and consists in the employment of levers in combination with a strap and covered teeth, in such a manner that the fleece of wool is acted upon by a rolling pressure and brought into a very small compass and held until tied by cords, when it can be instantly released from the pressure and removed from the machine.

PLOW.—CARLISLE ST. JOHN, Keosauqua, Iowa.—The invention consists in constructing the land side and colter of a plow both of the same piece in such a form that a good cutter is made and also the land side of a plow.

APPARATUS FOR DISTILLING.—C. H. HALL and JOHN ELLIS, New York City.—This apparatus is designed particularly for distilling or refining petroleum oil, but may be employed in the distillation of turpentine and volatile oils of any other description, and it is so arranged that a continuous distillation can be effected with little trouble and expense.

STOP COCK.—B. E. LEHMAN, Bethlehem, Pa.—This invention relates to a stop cock, the plug of which is open at the bottom and fitted into a case which is closed at the bottom and provided with a stuffing box on top, so as to hold the plug down in its seat and prevent the escape of steam or liquid. The liquid or condensed water accumulating in the case and plug, is drawn off through suitable waste valves, one in the bottom of the case and the other in the top end of the plug, in such a manner that in cold weather the stop cock sustains no damage by the freezing of said water or other liquid.

REMOVING THE FASTENING ON CORKS OF BOTTLES.—JAMES S. HAZARD, Newport, R. I.—This implement consists of a fork-shaped arm by which it is placed upon the neck of a bottle, in combination with a hook lever so hung to said arm that when the latter is over and upon the neck of the bottle it can be engaged with the loop fastener for the cork, which, by then properly operating it can be swung away from the top of the cork, leaving it free to be removed.

EGG BEATER.—CHAS. PINDER, Lowell, Mass.—This invention consists in providing a cover which fits tightly into a metallic can, which latter is the receptacle for the unbeaten eggs, with a number of hoops or arms extending downward into the can, and crossed or united so as to retain their proper position. By shaking to and fro this device the eggs will be dashed against the hoops or arms and thoroughly reduced to a froth in a very short time.

MACHINE FOR PEELING WILLOW.—GEORGE S. ANDERSON, Jeffersonville, Ind.—By this machine willow can be peeled in a most expeditious and practical manner, and without injuring it in the least.

TURNING IRREGULAR FORMS.—J. E. F. LELAND, New York City.—In this machine the material to be turned is suspended upon centers of a carriage arranged to slide in a suitable way or groove of the bed piece of the machine, in combination with which carriage one or more cutters are so arranged and operated that, as the material is carried along to the said cutters they will be made to so act upon the material as to produce the form desired.

REVOLVING HAND HAY RAKE.—RALPH G. LAMSON, Brownsville, Vt.—This invention has for its object to furnish an improved revolving hand hay rake by means of which hay may be raked by hand easily, quickly, and cleanly.

HYDROMETER.—G. TAGLIABUE, New York City.—This invention consists in a hydrometer which has a lump of metal or other suitable material secured in its main bulb in such a manner that said lump will firmly adhere to the inner surface of the glass, and the secondary bulb used in ordinary hydrometers for the purpose of holding shot or mercury can be dispensed with. The length of the bulb is thereby materially diminished, and an additional space is obtained for the scale without increasing the aggregate length of the instrument.

DROP PRESS.—JOSEPH P. NOYES, Binghamton, N. Y.—This invention relates to a drop press the hammer of which is guided between two uprights and suspended by a belt from a crank mounted on the end of a shaft on which revolves loosely a hollow drum. This drum is rendered rigid with said shaft by the action of a lever catch and shoe which are arranged in the interior of the same, the shoe being connected by a link with an arm extending from the shaft and the lever catch with the shoe by a pivot in such

a manner that when the drum turns in one direction the lever catch and shoe will bind on its inner surface and render the same rigid with the shaft, causing the hammer to rise by the action of the crank until it passes its upper center. At that point the outer end of the lever catch comes in contact with a spring stop, and the drum is released, allowing it to revolve independent of the shaft, and by pulling the spring stop the shaft is freed and the hammer drops. As the hammer rebounds, the lever catch and shoe immediately bind in the drum and the hammer begins to rise, and a drop press is obtained which can be operated with great convenience.

SHAKING TABLE.—WM. B. FRUE, Houghton, Mich.—This invention relates to a shaking table, the top of which is made undulating, or so that it forms a series of concave troughs in which the ore lodges and which are provided with projecting points or teeth, and with discharge channels in such a manner that by the motion imparted to the table and by the action of the projecting teeth the ore is thoroughly agitated and the heavy parts are made to pass through the discharge channels, while the waste is thrown off over the lowest end of each of the concave troughs. The motion imparted to the top of this shaking table is triple, and thereby the separation of the ore is materially facilitated.

SAFETY VALVE FOR STEAM BOILERS.—H. ANDERSON, Chicago, Ill.—This invention relates to a safety valve which is held in position by a volute or other spring placed in the interior of the boiler, said valve being provided with a stem which extends through a socket in a bridge on the inner surface of the dome cover, in such a manner that the valve operates free and easy, and the spring which holds the same in position is out of reach of the engineer or person in attendance, and can not be tampered with.

INK-WELL COVER.—GEORGE MUNGER, New York City.—This invention relates particularly to the manner in which the hinge joints of ink-well covers are constructed, rendering the same cheap in their construction, and easily put on or taken off.

MACHINE FOR BENDING WOOD.—CHARLES MOYER, Coopersburg, Pa.—This invention is particularly intended for bending sleigh runners, but which can also be used for bending strips of wood for other purposes. The strip to be bent is secured to a former by means of a flexible metal strap, and said strap is provided with a link through which the end of the strip of wood is passed, so that the same can be conveniently bent to the required form, without over-straining the strap and with comparatively little power.

PISTON PACKING.—JAMES BROUGHTON, Lambertville, N. J.—This invention relates to a piston which is provided with two sets of packing rings separated from each other by a partition plate, and each provided with a separate steam channel and with a separate set of springs. The steam channels are formed in the outer portions of T-shaped keys inserted behind the joints of the packing rings, and through those channels steam is admitted behind the rings, the division plate preventing said steam from passing around to the exhaust side of the piston.

SASH SUPPORTER.—WILLIAM S. VAN HOLZEN, Saugerties, N. Y.—This neat little invention consists of a simple arrangement of a rubber roller moving freely in an inclined recess. The sash being raised to any height, the pressure of the roller prevents it from falling till its motion is confined by a loose bolt, then the window can be lowered. As a sash supporter and lock, it is one of the simplest of its class. Patented September 25, 1866.

DEVICE FOR LOWERING BOATS.—H. GOULDING, Worcester, Mass.—This invention relates to an apparatus which, when attached to the fore and aft ends of a boat, will enable it to be hoisted up and lowered down to the side of a ship, and to be let into the water, with both its ends at the same time.

STOVE FOR DENTISTS.—S. P. HILDRETH, Mount Vernon, Ohio.—This invention has for its object the furnishing a stove for the use of dentists, for packing rubber, vulcanizing, etc., and it consists in combining a jacket for holding the vulcanizing flask with a stove.

PLANT TRANSPLANTER.—W. C. S. ELLERBE, Camden, S. C.—This invention is designed to furnish an instrument by means of which all kinds of plants, such as corn, cotton, etc., can be transplanted without injury to the plant or checking its growth, the position of the fibrous roots in the soil not being disturbed.

CARPENTER'S BENCH.—ROBERT MCCONNELL, Lawrenceville, Pa.—This invention is designed to furnish an improved carpenter's bench, the vise of which is so constructed and arranged that the jaw can be adjusted, and the article to be held secured between the jaw and the bench instantaneously.

SAW HANDLE.—N. HOMES, Laona, N. Y.—This invention is a neat, convenient and substantial handle for cross-cut saws, which may be readily attached to and removed from the saw, and which may be used as a saw set or a wrench, as occasion may require.

ANIMAL TRAP.—JOHN W. HOLLINGSWORTH, Seymour, Ind.—This invention has for its object to furnish an improved animal trap, simple in construction, efficient in operation, and not liable to get out of order.

HINGE AND PIN FOR IRON MOLDER'S FLASKS.—E. C. LITTLE, St. Louis, Mo.—This invention relates to an improved mode of making and fastening hinges and pins for the cope and drage of iron molder's flasks, the object and advantages of which are that they secure and strengthen the corners of the flask better than the old style of hinges and pins and ordinary methods of attachment, and are not so liable to become deranged and thrown out of match by the shrinkage and springing of the wood of the flasks.

CORN PLANTER.—CARLISLE C. MYERS, Sterling, Ill.—This invention relates to a corn planter of that class commonly termed self-dropping, and it consists in a novel seed-dropping mechanism whereby the corn may be planted in check rows without the necessity of previously furrowing the ground in one direction.

HANGING GATES AND DOORS.—GEORGE W. HOLLY, Low Moor, Iowa.—This invention consists in hanging a gate or door by means of pivoted bars and guides in connection with braces, all being arranged in such a manner that the gate or door may slide, and open and close freely.

MORTISING MACHINE.—WALTER NAUGEL, Philadelphia, Pa.—This invention consists in an improved means for operating the rotary reciprocating cutter, and also for operating and adjusting

the bed to which the stuff to be mortised is attached, whereby several advantages are obtained over the original machine.

APPLICATION OF PETROLEUM AS A FUEL.—E. MCKINNEY, Clarksville, Tenn.—This invention relates to an improved means of feeding petroleum to stoves, furnaces, etc., to serve as a fuel. It consists in the employment of water or other fluid having a greater specific gravity than the petroleum, and placing the former in an elevated tank or reservoir communicating with the lower part of the petroleum chamber by means of a pipe, so that the petroleum will be fed to the fire pan or chamber by static pressure.

VENTILATING VAULT-LIGHT COVER.—MICHAEL J. MCCORMICK, New York City.—This invention relates to an improvement in vault-light covers, whereby ventilation is obtained without removing the cover from its plate or bed.

BEEHIVE.—W. H. PIERSON, West Jersey, Ill.—This invention relates to the breeding and spare-honey boxes, whereby the labor of the bees is materially reduced; also relates to an improved means for transferring the bees from one honey box to the other in order to admit of old combs being taken out when necessary, and to an improved robber trap, whereby the honey in the hive is fully guarded and protected from robber bees.

LOCK.—WILLIAM SELLERS, New York City.—This invention relates to an improved lock of that class which are designed for articles having hinged or rising and falling lids, covers or tops, such, for instance, as piano-fortes, sewing-machine cases, etc.

COMBINATION SEAT AND DESK.—DAVID I. STAGG, New York City.—This invention is a combination of a seat and desk, whereby the device may be adjusted to serve as a seat only, or adjusted to serve as a seat and desk for either adults or children. The invention is more especially designed for public schools where the rooms provided with desks and seats are frequently used for lectures, addresses, etc., and where seats for adults are required; the invention admitting of rows of desks and seats being converted into seats by a very simple adjustment.

HAY-LOADING MACHINE.—G. W. FOREST, Evansburgh, Pa.—This invention consists in a means for rendering the hay carrier operative and inoperative when desired, and also in a means for elevating the carrier to any desired degree of inclination within the scope of its movement, to conform to the load as the same increases in height.

WATER ELEVATOR.—A. O. REMINGTON and R. STEWART, Weedsport, N. Y.—This device is for elevating water for domestic purposes, and is composed of a bucket and windlass, the latter being provided with a bucket-releasing mechanism to admit of the empty bucket descending without the necessity of reversing the motion of the windlass.

RADIATING STOVE.—GEORGE D. GREENLEAF, Depauville, N. Y.—This invention relates to an improvement in flues and valves, or dampers, whereby the direction of the products of combustion may be controlled in such a manner as to cause a large volume of heat to be radiated from the stove, and at the same time a direct or a partially direct draft allowed, as may be required.

COAL-OIL LANTERN.—JOHN O. HARRIS, Reading, Pa.—This invention has for its object the construction of a lantern so that coal oil may be burned in it without emitting smoke and an unpleasant odor, and which will admit of being carried and swung around, and also raised and lowered suddenly, without extinguishing the light.

GRINDING MILL.—J. G. LANE, Washington, N. Y.—This invention relates to an improvement on the conical grinding mill, more generally employed for grinding coffee, spice, etc., and it consists in a simple modification of the grinding surface or plates, whereby the discharge of the substance being ground may be regulated as desired, and the substance ground to the required degree of fineness.

WOOD-SAWING MACHINE.—ISAAC ALLARD, Belfast, Maine.—In the machine embraced in this invention, simplicity in both the construction and arrangement of the parts and efficiency in its operation are obtained.

STOVE.—E. N. CUMMINGS, Colebrook, N. H.—The object of this invention is to improve heating stoves, and increase their radiating surfaces without enlarging their size or increasing their cost. It is adapted for wood or other fuel.

COMBINED CARPET STRETCHER AND TACK HOLDER.—FREDERICK ASHLEY, New York City.—This invention relates to a useful implement for the laying and tacking down of carpets, etc. It consists of a combined carpet stretcher and tack holder, by means of which the stretching and the tacking down of carpets, etc., can be accomplished with ease and dispatch, and with the utmost convenience.

MACHINE FOR WASHING DISHES.—JAMES J. SAWYER, Woodstock, Conn.—This machine consists of a receptacle for the water used, so formed as to receive and hold the dishes about its sides, leaving the central portion clear, where, by any suitable means, a dasher or beater is so manipulated as to throw and dash the water about and over the dishes for washing them.

TOOL FOR REMOVING BOILER TUBE.—F. RAMSEY and JAS. MILLER, New York City.—This implement is so constructed and arranged, that by placing it upon the inside of the boiler tube to be removed it can be brought to bear against and made to cut or sever the tube at any point of its length between the head plates of the boiler.

SHINGLE MACHINE.—A. M. CONNETT, Madison, Ind.—This invention was illustrated in SCIENTIFIC AMERICAN, No. 6, present volume.

SPECIAL NOTICES.

Pinckney Frost, of Springfield, Vermont, having petitioned for the extension of a patent granted to him the 11th day of January, 1853, and reissued the 9th day of February, 1858, for an improvement in the fastenings, for seven years from the expiration of said patent, which takes place on the 11th day of January, 1867, it is ordered that the said petition be heard at the Patent Office on Monday, the 24th day of December next.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a *bona-fide* acknowledgment of the receipt of their funds.

Improved Cane Stripper.

This apparatus is designed to remove the leaves from sorghum cane preparatory to crushing it for the juice. The inventors say that two men can do twice as much work with it as they can in the ordinary way. It will strip cane after it has been cut three or four days, and works equally well on green or withered stalks. The caps are taken off without bruising the stalks, which is very desirable to sirup makers. When early frosts come on, the whole crop must be cut and laid in windrows; this machine can then be used to advantage, either where the crop is lying, or in the barn, as it is light and easily transported. All the tops and blades are left in one place, which is better than having them scattered over the field. The several parts are as follows:

Four elastic arms, A, secured to the frame, B, are provided with cutters, C, and a gate, D. When the gate is allowed to hang down, the arms are extended as shown, and the stalk is entered from the front. As it is drawn through, the gate is pushed out of the way and the arms close upon the stalk, when the leaves are immediately stripped off — The heads of the cane are struck off on the knife, E, attached to the frame.

This invention was patented through the Scientific American Patent Agency Oct. 10, 1865, by Bishop & Gladden of Chrome Hill, Md. For further information address patentees or John M. Griffith, 49 North Paca street, Baltimore, Md. County and State rights for sale.

Writing Ink.

The boasted power that has been proverbially ascribed to the pen, should, in fairness, be shared with its unpretending associate, whose presence constitutes its sole claim for notice, and deprived of which, its power vanishes. We may look in vain through the whole field of chemistry for any preparation that has so far benefited the civilized world, or whose use is so universal, as this same writing ink.

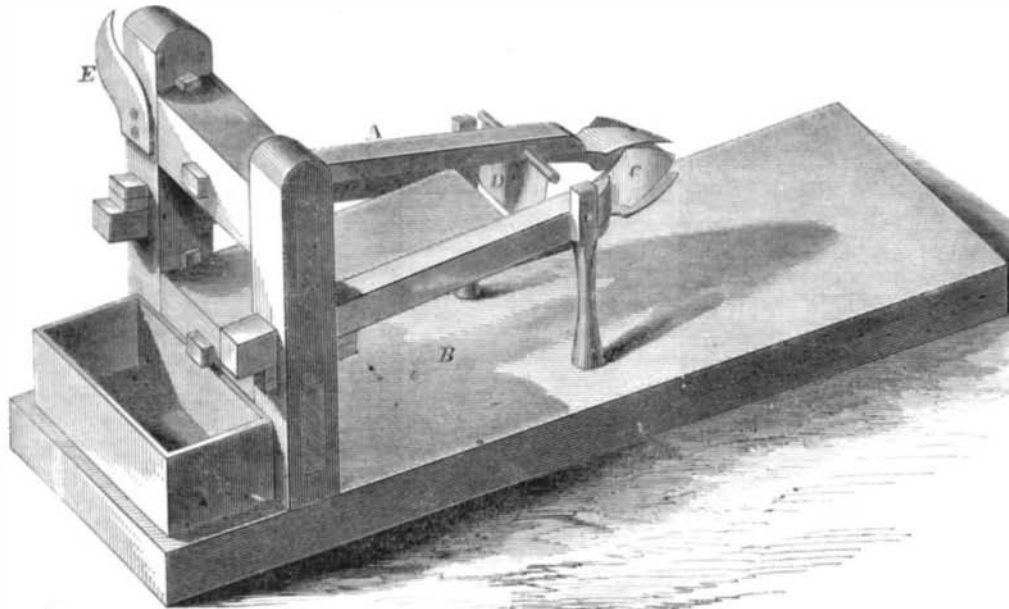
To fix a date for the introduction of ink would be impossible; its antiquity is only inferior to writing itself. We have early receipts for its manufacture, though the article seems to have been similar in composition to india ink, having a consistency much thicker than our writing fluids, from which cause the letters appear in relief, as if embossed.

During the middle ages fluid ink was used, and it is a fact not a little singular in this progressive age, that essentially the same constituents were then employed that are now made use of in some of our best inks. The truth of this assertion was proved, incidentally, a few years ago, while an examination was being made to ascertain the explanation for a fact often noticed by antiquarians, that while manuscripts of the fifth and sixth centuries now remain apparently as bright as when first written, those of comparatively recent date have often become almost illegible, and sometimes even obliterated. This superiority of the old over the new was then proved to be due entirely to the better preparation of the material upon which the writing was made, namely, parchment or vellum.

This question of durability is the one of greatest value in the selection of an ink. Although for many purposes the only requirement is that it will remain without fading for a few years, yet there is hardly a bottle sold some of which may not be used in the execution of documents, that may be required to be legible fifty or a hundred years hence.

In addition to innumerable methods invented from time to time for counteracting the effects of time, plans have also been proposed for guarding against

removal for fraudulent purposes. Some time since an eminent chemist suggested a curious mode for not only preventing the actual removal by chemical means, but also for detecting any unsuccessful trials that may have been made. He proposed first dipping the paper on which the writing was to be made into a solution of gallic acid. Any attempt to efface a word written on paper thus prepared, by any of the usual chemical methods, would result in forming a black ring around the character, which it would be impossible to erase without destroying the paper.

**BISHOP & GLADDEN'S CANE STRIPPER.**

The use of red ink is common in old manuscripts for the initial letters, also the titles of books, and headings of chapters. At Orleans, a charter of Philip I., of France, is preserved, dated 1090, which is written with green ink. Red, yellow, purple, and, indeed, any variety of colored inks may be easily produced, and have been used. In all these the coloring matter desired is held in suspension by thickening the liquid with gum-arabic.

OLMSTED'S SPRING-TOP OILER.

It is frequently necessary to eject oil from an oiler



when the implement cannot reach the part to be lubricated. This is done by a sudden compressor of the air in the can acting on the oil, which com-

pression is produced by diminishing the oil space by springing the top or bottom of the oiler inward. Such is the oiler represented in the engraving.

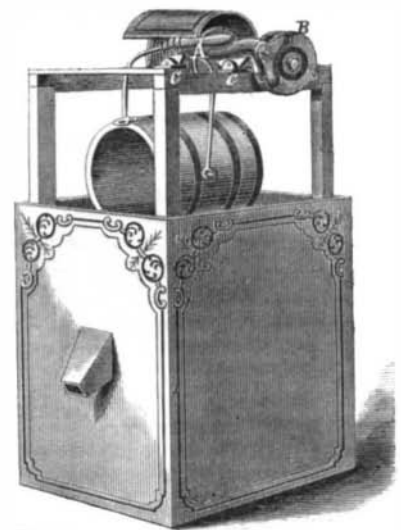
A is the body of the can, "struck up" from heavy sheet tin; B is the top, crowning at the center to allow free passage to the oil, and being a disk spring, which is operated by the collar, E, on the tube, D, that screws into the top, at C. To prevent the flexible top from being set, which is the main object of the improvement, a pipe, F, fits snugly into the discharge tube, having longitudinal slots in its sides to allow the oil to pass freely, and its other end engages the stud of the weight, H. The pipe, F, is soldered to the inside of the screw, G, making this, usually the weakest part of an oiler, the strongest, as after the pipe reaches the top of the weight, H, no further pressure on the cover can depress it.

This device was patented through the Scientific American Patent Agency, May 1, 1866, by L. H. Olmsted, Stamford, Conn., to whom apply for additional particulars.

WATER ELEVATOR.

Notwithstanding the conveniences of pumps, by which water can be brought directly into the house from a well situ-

ated at a distance, the popular idea on this subject is well expressed in the song of "The Old Oaken Bucket."



The engraving shows a well curb and water elevator, which is easily operated, and having no springs or other attachments liable to get out of order, is durable and convenient. The crank, A, has a cam at the end opposite the handle, which bears against the periphery of a wheel inclosed in the box, B, so that when rotated to raise the bucket, it grips the wheel, which is a portion of the shaft carrying the rope wheel, and becomes a part of the shaft. To lower the bucket in the well, the arm of the crank is rested on one of the lugs, C, when the eccentric of the crank is released, and the drum allowed to revolve, sending the bucket down. The pressure on the crank can be regulated to permit the bucket to descend with greater or less velocity. A catch on the bucket rim engages a projection on the curb, tilting it for the delivery of the water when at the proper height.

Patented through the Scientific American Patent Agency Sept. 4, 1866, by Alfred Woodworth.

For further particulars address Alfred Woodworth, Cambridge or North White Creek N Y