

54,260.—Grinding Mill.—Thomas J. Sloan, New York City, assignor to John G. Sloan, Paris, France :

I claim the combination of the series of drunken saws for grinding, the two series being mounted on two shafts geared to rotate with equal velocity, and the series of clearing saws being of greater diameter than, and extending into the space between the grinding saws, substantially as and for the purpose specified.

The combination of the series of grinding saws with the feed roller and the interposed rest bar, and pressure plates as the equivalent thereof, substantially as and for the purpose specified.

In combination with a series of drunken or inclined saws for grinding as described, the means or the equivalent thereof for giving to the feeding mechanism a lateral reciprocating motion for the purpose of presenting the material equally to all the saws as set forth.

54,261.—Grinding Mill.—Thomas J. Sloan, New York City, assignor to John G. Sloan, Paris, France :

I claim the combination of the series of clearing disks with the series of grinding or reducing saws when the periphery of the disks is made to travel faster than the periphery of the saws, substantially as and for the purpose described.

And I also claim giving to the feeder box a reciprocating motion, substantially as described in combination with the series of circular saws set with their planes at right angles with their axis of rotation, and having spaces between them, substantially as and for the purpose specified.

54,262.—Grinding Mill.—Thomas J. Sloan, New York City, assignor to John G. Sloan, Paris, France :

I claim the combination of the series of saws with the series of disks formed with recesses or buckets in their peripheries for carrying and holding the grain to and while it is subjected to the action of the saws, the saws rotating at a higher velocity than the disks, substantially as and for the purposes described.

I also claim the hopper for supplying the grain to the bucket in the series of disks in combination with the series of disks and the series of saws, substantially as and for the purpose described.

And, finally, I claim, in combination with the series of saws and with the series of disks constructing the lower part of the hopper with an overflow and inclined surface leading thereto, substantially as and for the purpose described.

54,263.—Grain Separator.—Charles G. and William Stoll (assignor to Charles G. Stoll), East New York, N. Y. :

I claim the combination of the sieve, B, with the closed box, A, and fan blower, I, or other equivalent devices, substantially as described, so that the air forced into the said box has no way of escape except through the apertures in the sieve, and it is compelled to act on the material placed on said sieve with its full force.

The yielding spring valve, F, in combination with the long, narrow discharge opening in the bottom of the hopper, and with the sieve, E, constructed and operating substantially as and for the purpose set forth.

The closed box, J, to which the air has access from below in combination with the fan, I, box, A, and sieve, E, constructed and operating substantially as and for the purpose described.

The adjustable valve or partitions, R, in the compartments, Q, of the box, A, in combination with the sieve, E, constructed and operating, substantially as and for the purpose set forth.

The air valve, V, in the bottom of the box, A, in combination with the blower and sieve, constructed and operating substantially as and for the purpose described.

54,264.—Banjo.—William B. Tilton (assignor to W. Nash), New York City :

I claim securing the parchment head to and within the cylinder or rim of a banjo or other similar musical instrument, by means of two annular rings, B and C, when arranged together and with regard to the parchment head and the banjo rim so as to operate substantially in the manner described and for the purpose specified.

I also claim so arranging and securing the ring, C, to which the parchment head is fastened within the banjo rim that it can be adjusted in position, substantially as and for the purpose described.

54,265.—Tweezer.—James M. White (assignor to himself and David King), Springfield, Ohio :

I claim the peculiar arrangement of tweezer for blacksmith forges consisting of two parts, A and B, united by the bolts, E, and having the hemispherical cup, F, resting upon legs, D, permanently attached to it which rests upon the work, F, which has also a slide, C, in the bottom, the several parts being constructed and arranged substantially as and for the purpose set forth.

54,266.—Method for Preparing Magnesium for Burning.—Charles H. Wing, Newton Mass., assignor to the American Magnesium Co., Boston, Mass. :

I claim the forming of magnesium wire or ribbon into the spiral coils herein described.

54,267.—Method of Purifying Hydrocarbon Oils.—John Fordred, Blackheath, England :

I claim the employment of a solution of caustic soda or potash as a preliminary treatment or process of purification of the crude or of the distilled oils or hydrocarbons resulting from the distillation of coal, shale, or peat at a low temperature.

54,268.—Method of Ventilating Mill Stones.—A. D. Lagogney, Paris, France :

I claim the combination of the two cones, M N, air-conducting box, P, spouts, P' P', pipes, T S, and stuffing boxes, Q R, the whole arranged in relation with each other and applied to a pair of millstones, substantially as and for the purpose herein specified.

54,269.—Roller Temple for Looms.—J. Mathis, Dornbirn, Austria, assignor to H. Kayser, New York City :

First, I claim a temple composed of a series of wheels, a, set in an oblique position, substantially as and for the purpose herein shown and described.

Second, The eccentric shoulders, E, and the disks, d, which separate the oblique wheels, a, substantially as and for the purpose set forth.

54,270.—Cards for Carding Machine.—William Turner, Samuel Shore, and William Halliwell, Rochester, England :

We claim in tooth and stapler cards used in carding machines, the system of making the prongs or legs of each staple or tooth of different lengths.

54,271.—Method of Preparing Threads for Parti-colored Printing and for Properly Weaving the Same.—Stanislaus Vigoureux, Paris, France :

I claim the method herein described, of preparing threads for parti-colored printing, and of retaining them in their proper relative position for weaving for the purpose of preventing the marring or disfiguring of designs or patterns.

REISSUES.

2,233.—Bank and Safe Door Knob.—Lewis Lillie, Troy, N. Y. Patented July 5, 1859.

First, I claim the employment of the switch or bar, D, and the nut, C, or any equivalent thereof, arranged upon and combined with the knob bolt or spindle, B, in the manner substantially as and for the purposes herein described and set forth.

Second, The tapering or conical spindle, B, in combination with a door of iron or metallic safe vault or other structure so as to prevent the lock or lock bolt switch, by which the door thereof is fastened therein, from being driven from such door, from the outside of the same, by any bit-screw, in the manner substantially as herein described and set forth.

Third, The employment of said tapering or conical spindle, B, in combination with the lock case, C, of the lock, F, or any equivalent thereof, in the manner and for the purposes substantially as herein described and set forth.

Fourth, The employment of the tapering or conical spindle, B, or any equivalent thereof, when used in the manner and for the purposes substantially as herein described and set forth.

DESIGNS.

2,294.—Ornament for the Head.—Sarah E. Cook, Philadelphia, Penn. :

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 our reception of their funds.

PATENT-OFFICE DECISIONS.

Application for a patent for Improvement in Drilling Wells.

E. Foote, Examiner-in-chief.—The continuous rotary motion of a shaft is made to give the reciprocating movement of the drill in a manner that is ingenious, simple, and effective. To the shaft is attached a ratchet wheel, and by it, turning loosely on the shaft, is what is termed a crank, to which the rope from the drill is attached. On the crank is a pawl with its spring, against which the ratchet teeth act and carry forward the crank. The drill is thus raised to its full height and the crank passes the center, when the weight falling, carries the crank and pawl faster than the wheel, and imparts the blow. The wheel and pawl then reconnect, and the weight is again raised.

In the principle of this invention the applicant has been anticipated by a part of the drop press of Milo Peck, patented in May, 1857. The effect of this is to limit the applicant's claims to the particular arrangement and combination he has made to effect a specific object. The claims presented in the specification seem to us to be so limited as to present sufficient invention and utility to entitle the applicant to the patent asked for.

When a real improvement has been produced we are disposed to regard an applicant's case with liberality. The device that has been supposed to interfere with this is adapted to another purpose, and is not suited to operate a drill. In making the particular application and adaptation, the applicant has displayed invention and rendered an important service.

The decision of the Examiner is reversed. Washington, D. C., Feb. 7, 1866.

Application for a patent for Improvement in Feeding Devices in machines for planing lumber.

E. Foote, Examiner-in-chief.—Both the upper and lower rolls that feed the boards into a planing machine are, in the applicant's device, operated by bevel gears, and the two are connected by a sliding rod that admits of their adjustment to different thicknesses of lumber. The positive motion to both rolls and the provision for their necessary adjustment without effecting the gearing is the improvement claimed, and it is said to be of much practical importance. The invention was found to be anticipated by the feeding device in the planing machine of Lorenzo Vance, patented in March, 1864, and the applicant requested that an interference might be declared to give him an opportunity to show that his invention was first made. This the Examiner declined to do on the ground that the applicant's claim and specification did not sufficiently distinguish his device from a still older one, patented to Samuel Whiting in 1839. And this is the question appealed to us.

In Whiting's machine is found the sliding rod by which the adjustment is made, but the upper roller only is propelled by the bevel gears. The board, instead of being carried forward by two positive rolls pressing upon opposite surfaces, is moved by one only, which has also to overcome the friction of the lower roll. The arrangement of his rolls and their attachments is also less advantageous and practical than that of the applicant's. The first claim in the applicant's specification is for the combination with the feed rolls of the two sets of bevel gearing, F V H U, and the sliding shaft, G, substantially as and for the purposes described. It seems to us that this claim is appropriate, that it clearly points out the applicant's invention, and distinguishes it from Whiting's, and the Examiner's decision in regard to it must be overruled.

The second claim is for "the combination with the feed rolls for planing lumber of gearing so arranged and combined therewith as that the entire roll or either end can rise and fall without changing the pitch line of the gears by which it is driven, substantially as and for the purposes stated."

This claim is for the combination with the rolls of any kind of machinery or gearing that shall give them a certain property, that of rising or lowering without changing the pitch line of the gears. In an invention which consists solely of a specific form or arrangement of machinery, but little distinguishable from other forms of doing the same thing, this claim of functions or properties is improper, as we recently decided in the case of the interference between Tittman and Slepoy. Besides, this function embraced Whiting's device, for in his machine the roll rises and falls without changing the pitch line of the gear by which it is driven. The Examiner was therefore entirely right in holding that Whiting's device anticipated this claim. The same remarks may be made in reference to the third claim.

The fourth claim, which is for the combination with the feed rolls, of mechanism for operating said rolls upon their axis and for elevating and lowering the top feed roll, substantially as herein described, may be regarded substantially the same as the first, expressed in different language—which to prevent misconception is sometimes allowable. Perhaps it is sometimes ambiguous. An amendment which should make it say "mechanism for operating both rolls," would remove all difficulty.

The fifth and sixth claims do not appear to conflict with Whiting's device.

The Examiner's decision in reference to the second and third claims is affirmed. His decision in reference to the third, fourth, fifth, and sixth claims is reversed. Washington, D. C., Jan. 1866.

Application for a patent for Improvement in Paper Ruling Machines.

H. Foot, Examiner-in-chief.—The applicant has made the penholder in these machines adjustable in every direction by screws and jam nuts. In the means used there is nothing new. They are all found in other instruments, and to some extent, in other ruling machines. They evince the skill of the accomplished mechanic rather than the creations of the inventor. The forms are new and skillful, but this does not authorize a patent for an invention. The decision of the Examiner must be affirmed. Washington, D. C., Feb. 1866.



N. C. G., of Mo.—Some years ago an offer was made through our paper for a machine to feed paper to a printing press, and several patents were granted for different modifications. It was found difficult to meet all the conditions required. The Philadelphia *Inquirer* is now printed on a self-feeding press Bullock's patent.

B. T. D., Mass., and M. S. M., La.—Straw hats are bleached by putting them in a tight box, at the bottom of which a quantity of sulphur is burning.

E. S. C., Ohio.—A worm wheel 8 inches in diameter, that runs 250 turns per minute, cannot help grinding in driving a spur wheel 24 inches diameter, because the velocity of the two surfaces is so unequal. Moreover, a worm wheel is not adapted to running at a high speed. Some other arrangement should be employed.

N. B. W., Ind.—All instruments that can be used in schools are exceedingly remunerative. You must be the judge as to the probability of yours becoming popular.

W. H. H. H., of Pa.—The size of the outside of a steam boiler has nothing to do with its power. The efficiency of them depends on their heating surface and the circulation of the water. Your boiler is 5 feet high and 4 feet diameter, and you ask us if you can get 16 horse-power out of it. If you have 250 square feet heating surface, and 8 square feet grate surface you can. Such a boiler is not large enough to drive two engines 8 in. piston, 14 in. stroke with 250 feet piston speed per minute, and 125 pounds pressure.

J. H. T., of N. Y.—Freezing food for preservation is practicable by the use of chemicals, but the cost of them is an insuperable objection.

S. H. W., of Col. Ter.—We are much obliged for your letter, but the subject has been fully discussed.

TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine to accompany the claim, at a reasonable additional cost. Address J. MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

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19 2 FOWLER & WELLS, No. 389 Broadway, New York.

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\$60,000.—WANTED, ONE OR TWO in the Machinery business. The advertiser has a large establishment with a most favorable location on tide water and railroad.

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Auf der Office wird deutsch gesprochen. Die Patent-Gesellschaft der Vereinigten Staaten, nebst den Regeln und der Geschäftsordnung der Patent-Office und Anleitungen für den Erfinder, umfängt Patente zu liefern, in den Vereinigten Staaten sowohl als in Europa.

Munn & Co., No. 37 Park Row, New York.

**Improved Self-Rocking Cradle.**

Rocking the cradle to soothe the nerves of some perturbed infant is a task that every woman is desirous of avoiding, if possible, as it is a tedious and fatiguing piece of work.

In this engraving we have shown a new way of rocking the cradle, that is, by clock work. When the child is to be put to sleep, the mother winds the wheel work, A, at the end, just as a clock is wound. When this is done the wheels give motion to a vibrat-arm, B, which is driven by a small crank in the works aforesaid. This vibrating arm has two rods, C, at-

to the collar, B, so that the violent lashing to and fro which sometimes happens, is received on the elastic medium, and much reduced. The straps being connected to the spring by the sliding coupling, or collar, B, allow them to conform freely to all positions of the tongue, so that no cramping will take place. The straps passing over rollers in one of the snap hooks, C, also favors the proper disposition of the parts.

This arrangement is well adapted for all kinds of cultivators, mowers and reapers, as well as wheeled vehicles, inasmuch as it prevents the cultivators, etc., from jumping into the corn when driven close to

our own lines; it seems to present some advantages over the street boxes.—*Exchange.*

[What is the particular advantage in this? It is easy enough to drop letters in the street boxes now, but not so easy to get them delivered. If the Department would authorize men to deliver the letters promptly, it would be a great advantage to the business community.]

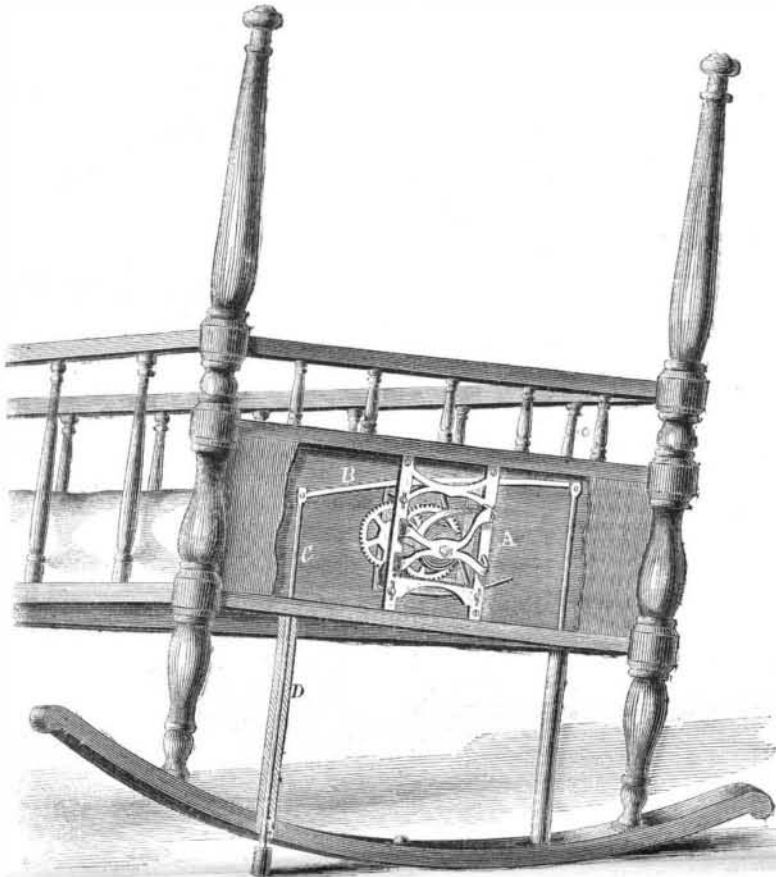
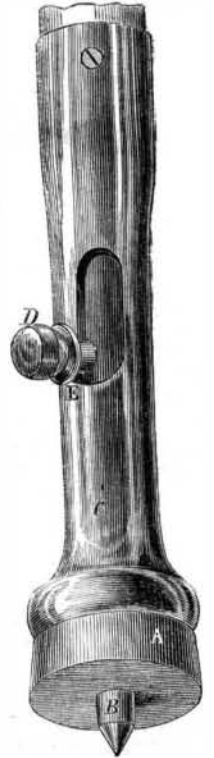
**BUGBEE'S CRUTCH.**

Common crutches are very insecure. In slippery weather it is next to impossible to use them safely without great care. They are also noisy on floors, and cause mortification to sensitive persons by heralding their approach in public assemblies.

The crutch here shown, or the principal part of it, is a great improvement on the ordinary ones. It is not only noiseless, but perfectly secure in all kinds of weather and all conditions of surface. In detail, it consists of an elastic cushion of rubber, A, affixed to the end of the crutch a shaft and a steel center, B.

This center is capable of sliding up in the socket, C, when not in use, or held extended by moving the pin, D, on one side, so that it falls into a slot, E. In this condition it is a complete security against accidental slipping.

It was patented through the Scientific American Patent Agency, on April 18th, 1865. Address J. G. Bugbee, Bangor, Me., for further information.



**HELMKAMP'S SELF-ROCKING CRADLE.**

tached to it, which work through tubular cases, D, against the floor, and thus impart the rocking motion. The wheel work will run a long time, and after starting requires no attention.

It was patented on Feb. 9th, 1864, by C. H. Helmkamp, of Reading, Ohio, to whom address for further information. Rights for sale.

**Improved Shock Arrester.**

Every observing person must have noticed how severely horses are struck by the pole of the wagon when traveling on uneven ground. In cities especial-

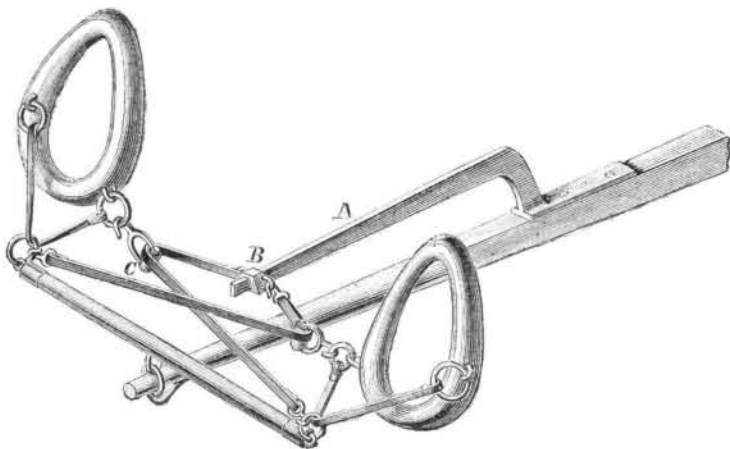
the hills, thus avoiding the waste which would occur from tearing it up.

Various parties who have tried it pronounce this arrangement to be very satisfactory. State, county or town rights will be sold by the inventor.

It was patented through the Scientific American Patent Agency Nov. 21, 1865, by F. D. Ladenberger. For further information, address him at Glenbeulah, Wis.

**Letter Boxes on Horse Cars.**

The Post Office Department has authorized the at-



**LADENBERGER'S SHOCK ARRESTER.**

y, draft horses attached to heavy loads labor along as much inconvenienced and worried by the jerking of the pole, as by the work they are doing.

In this engraving our readers will see a preventive for the evil alluded to. It consists in attaching a spring, A, to the pole and connecting it by two straps

tachment to each car of the Philadelphia Union Passenger Railway Company of an iron letter box, with a wide mouth, in the exterior panel of the car. Persons on the line of the road can thus drop letters into the box as the car moves along. Perhaps this plan might be introduced with good results on some of

**ESSENCE OF COFFEE.**—The Cincinnati *Gazette* announces that "pure essence of coffee" is now made in that city out of the "cheapest, dirtiest molasses." This molasses is boiled, cooled, and when hard, is broken and pulverized. Ground rye is then mixed with it, and a small box of the mixture, labelled "pure essence of coffee," is sold for eighty cents.



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