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 volocity, 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 hinded saws for grinding as described, the means or the equivalent thereoffor giving to the feeding mechanism a literal reciprocating motion for the purpose of presenting the material equally to all the saws as set forth.

ing 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 serie 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 axisofrotation, and having spaces between them, substantially as and for the purpose specified.

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
olding the grain to and while it is subjected to the action of the saws,
the saws rotating at a higher volocity 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 dasks 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.

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, E., with the closed box, A., and fan blower, I, or other equivalent devices, substantially as described, so that the airforced into the said box has no way of escape except through procedure and serve with its full force compelled to act on the material procedure and serve with its full force compelled to act on the material procedure and serve with its full force compelled to act on the material procedure and serve with its full force compelled to act on the material procedure and operating substantially as and for the purpose set forth.

The closed box, I, to which the air has access from below in combination with the fun, 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 s and for the purpose described.

The air valve, v v, in the bottom of the box, A, in combination with the purpose described.

54,264.—Ban lo.—William B. Tilton (sesioner to W. Nach).

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. If 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 ring. C, to which the parchment head is fastened within the banjo rim that it can be adjusted in
position, substantially as and forthe purpose described.

54.965—Twocey.—James M. White (assignor to himself

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

I claim the peculiar arrangement of tweer 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, I, rotten piece, B, 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.

51,267.—Method of Purifying Hydrocarbon Oils.—John Fordred, Blackheath, England:

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

or peat at a low temperature.

54,268.—Method of Ventilating Mill Stones.—A. D. Lagogney, Paris, France:
I claim the embination of the two coues, 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.

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 tor 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 u ed in carding machines, the swater of the start of the sta

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

161,271.—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 particolored 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.

REISSUES.

2,233.—Bank and Safe Door Knob.—Lewis Lilie, 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 bott 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 an 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 burgiar, in the manner substantially as
berein described and set forth

Third, The employment of said tapering or conical swindle. The

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 thereot, 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 sub scriptions, a receipt for it will always be given; but when subscribers result their money by mail, they may consider the arrival of the first paper a tong-Ade acknowledgment of our reception of their

PATENT-OFFICE DECISIONS.

Application for a patent for Improvement in Drilling Wells.

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 hight 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.

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

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

E. Fool; 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 opportu ity 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

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 misconstruction is sometimes allowable. Perhaps it is sometimes ambiguous. An amendment which which should make it say "mechanism for operating both rolls," would remove all d fliculty.

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 a firmed. 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

Application for a patent for Improvement in Paper Ruling Machines.

HI. 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 pre

B. T. D., Mass., and M. S. M., La.-Straw hats are 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, thatruns 250 turns per minute, cannot help grinding in driving a spurwheel 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

N. B. W.. Ind .- All instruments that can be used in ols are exceed ngly remunerative. You must be the judge as to the probability of yours becoming popular.

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

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

TO OUR READERS.

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inst., A notice with the above heading, with a very one-ided statement of a trial of my Water Wheel with Leffel & Co.'s, which was in
every way unfair. The wheel that Leffel & Co.'s, which was in
every way unfair. The wheel that Leffel & Co.'s, which was in
every way unfair. The wheel that Leffel & Co.'s, which was in
every way unfair. The wheel that Leffel & Co.'s table, twenty inches of
water in the first one was bear, using twenty inches more water
than my wheel. A coording to Leffel & Co.'s table, twenty inches of
water under fitteen feet head ought to grind six and one-half
bushes of wheat per hour, or thirty-six barrels in 24 hours
ove. I am you head per hour, or thirty-six barrels in 24 hours
ove. I am told by a party who knows all the particulars of the trial
that the stones which my wheel run were not in good order, and
that it was an unfair trial. I bad no notice, nor any onethere to see
to my interest in the matter. I co mot know wheel drove the most
machinery in the mill except two smute milks. My wheel was all
cast iron, rouch as it came from the foundery, not polished bucket a,
the first ried from that pattern, using twenty inches less water under fifteen feet head, grinds twenty-four barrels flour kess in twenty
four hours than the Leffel wheel. If I had been in Leffel & Co.'s
place I should have kept quiet about that will. I Intend to build a
wheel venting the same annount of water as the Leffel wheel, when
I will let the public know the result. With regard to the challenge,
my offer is still open for Leffel & Co.'s acceptance; the Five Toousand Bollars is still ready as I proposed, with a far trial atgrinding.
Below I give Mr. Burbank's certificate, as aring my wheel as ad les
water than the Leffel wheel. The new Leffel wheel wheel were
of water wheels. We see reflicate, as aring my wheel as ad les
amount of water used was of no importance in a trial of the power
of water wheels. We see without

ROCHESTER, Sept. 20, 1865.

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nehlt ben Regeln und ber Geschäftsorbnung ber Patent-Office und Anseitungen für den Ersuber, umiged Varente zu fidern, in der Ber-Staaten sowohl als in Euroba. Gertter Auslugg aus ben Patent-Gesen frember Lander und darauf bezügliche Anabschlägez ebenfalls nügliche Winte für Ersthater und solche, welche patentiren wobset Breis 20 Cits., wer 80% 25 Ets

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 vibratarm, 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, They 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.



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.



INVENTORS, MANUFACTURERS.

The SCIENTIFIC AMERICAN is the largest and most widelycirculated journal of its class in this country. Each number contains sixteen pages, with numerous illustrations. The numbers for a year make two volumes of 416 pages each. It also cont ins a full account of all the principal inventions and discoveries of the day.

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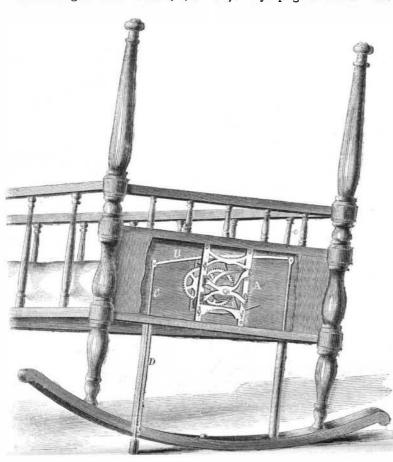
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FROM THE STEAM PRESS OF JOHN A. GRAY AND GREEN.



HELMKAMP'S SELF-ROCKING CRADLE.

tached to it, which work through tubular cases, D, the hills, thus avoiding the waste which would occur 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-

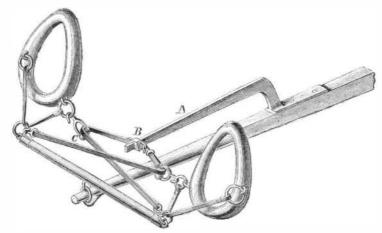
from tearing it up.

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,

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 | tachment to each car of the Philadelphia Union Pasas much inconvenienced and worried by the jerking of senger Railway Company of an iron letter box, with 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 the box as the car moves along. Perhaps this plan pring, A, to the pole and connecting it by two straps | might be introduced with good results on some of

a wide mouth, in the exterior panel of the car. Persons on the line of the road can thus drop letters into