



Issued from the United States Patent Office FOR THE WEEK ENDING NOVEMBER 10, 1887.

[Reported officially for the Scientific American.]

PROJECTILES—Henry Bates, of New London, Conn. I do not claim the attachment to a projectile of a tail...

FORMING ROUND TENONS ON WINDOW BLIND SLATS—Thomas C. Ball, of Keene, N. H. I do not claim the combination of machinery for pricking the staples holes...

SAWING MACHINE—Harvey Brown, of New York City. I do not claim a saw or hand running on pulleys, without reference to its construction and operation...

CORN HUSKER—Joseph Gawthra, of Rochester, N. Y. I claim the grooved rollers, l k, saw wheel, 4, and endless apron, p, in combination with the husker 2, grating 3...

DETERMINING APPROXIMATE LATITUDE AT SEA—Edward Cavendish, of New York City. I claim the described method of determining approximately the zenith of the observer, under the circumstances set forth...

EARTH-MOVING MACHINE—John Cowdon, of New Orleans, La. I claim the combined arrangement of the gear wheels, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16...

CULTIVATORS—David E. Hall, of Abington, Ill. I am aware that cultivators have been previously devised, in which shares have been arranged as to allow a certain degree of lateral movement...

DISTRIBUTING APPARATUS IN FLOURING MILL—James M. Clark, of Lancaster, Pa. I do not wish to be understood to claim a double series of spouts and valves, as that has been done before...

HOISTING APPARATUS FOR BRICKS, &c.—John Crawshaw, of Rochester, N. Y. I claim elevating articles with a vertical trunk by means of the mechanism shown, or any equivalent device, so that the articles will be raised with a continuous motion within said trunk...

PULLING BEANS—Justin Day, of Murray, N. Y. I claim the movable head, arranged and operated as described, for the purposes set forth...

RAILS FOR RAILWAYS—Timothy Dwight, of New Haven, Conn. I claim the rail with its flange or flanges, in combination with the sill adapted to fit the lower part of the rail, as described; and these I also claim in combination with the screw bolt and nut, as described...

ATTACHING STEAM GAGES TO LOCOMOTIVE BOILERS—J. L. Eastman, of Boston, Mass. I claim interposing between the gage and the boiler the elastic cushion or spring, so that the jar or vibrations of the engine shall not be transmitted to the gage, as set forth and described...

HOLDING MUSIC, &c.—André Adolphe Gaget, of Paris, France. I claim the construction and employment of the hooks, m, and holdfasts or braces f, in connection with the wack, a, for the purpose of binding together the music manuscripts, and other loose papers, substantially as described...

SEEDING MACHINES—Albert Franklin, of Genoa Cross Roads, Ohio. I claim the combination of the wedge-shaped or triangular-formed discharge openings, h i, of the hopper, C, with the similar shaped cells, m n, in the feed cylinder, B, arranged for operation in the reverse direction to each other, and the several cells in each circular row of said cylinder, forming through a continuous opening, by means of channels, Z, connecting the apex of the one cell with the base of the other, for the purposes set forth...

STOVES FOR BURNING TAR, SAW-DUST, &c.—Samuel Fisher, of Canton, Mass. I do not claim combining with a fire pot or place and air flue or chamber for air to pass through and over the fuel, when the fire pot or chamber has a grate, and a current of air passing up through the grate and the fuel on the same, for in my stove there is no grate, and an upward current running through the entire mass of fuel would consume the fuel too fast, and render the stove liable to explode...

FRUIT GATHERERS—Firman Goodwin, of Astoria, N. Y. I claim the frame, A, formed of the elliptical and annular rims, a b, and socket, B, the socket having an oblique position relatively with the frame of the outer rim, a, having the bag, D, attached, and the rim, b, provided with the projections, c c, and openings, d, d, as and for the purposes set forth...

WATER-PROOF SOLES AND HEELS FOR BOOTS AND SHOES—Benjamin D. Godfrey, of Milford, Mass. I do not claim making a heel separate from a sole, as this is common to leather shoes...

CORN HUSKER—Samuel A. Gould, of Seneca Falls, N. Y. I claim the trip lever, E, in combination with the lance-shaped knife, B, the guide, C, and the slotted lever, D, the whole being constructed and operating as described...

SPRINGS FOR MATTRESSES, CHAIRS, &c.—William Hersee, of Buffalo, N. Y. I claim supporting or maintaining the spring, A, in a proper vertical position upon the slat, C, by means of the guide pin, B, secured within the spring by means of the head, a, and block, b, the lower end of the pin being fitted, and working in or through the socket, D, in the slat, C, as and for the purpose specified...

COOKING STOVES—James R. Hyde, of Troy, N. Y. I wish it distinctly understood that I do not broadly claim so constructing a stove that heated atmospheric air can be admitted at the same, or at different times, into the fire chamber at different places above or beyond the fuel, from one or both of two separate air-heating chambers, by the use of the dampers by which the admission of cold air into such air-heating chambers is controlled, for the purpose of promoting the combustion in different parts of the fire chamber of the gases evolved by the burning fuel...

CULTIVATORS—David E. Hall, of Abington, Ill. I am aware that cultivators have been previously devised, in which shares have been arranged as to allow a certain degree of lateral movement; but I am not aware that shares have been arranged and applied as shown, to admit of the two movements described, and rendered capable of being adjusted with such facility, as to be so constructed that I do not claim broadly and separately the adjustable shares, irrespective of the arrangement shown and described...

TURNING SPIRAL FORMS—John C. Hintz, of Cincinnati, Ohio. I do not claim the oppositely-rotating cutters as new in themselves...

FEEDING PAPER TO PRINTING PRESSES—Richard M. Hoe, of New York City. I do not claim feeding sheets of paper to printing presses and analogous machines by means of a feeding cylinder, in connection with a series of endless belts or tapes, and a drop roller, for such device is well known, and in common use...

PRINTING PRESSES—Stephen Wilcox, Jr., of Westbury, N. Y. I claim, first, The adaptation of the eccentric segment, B, to the stationary bed, A, when said segment is held to the bed by radius bars, C, C, and operating substantially as set forth...

HUSKING PALM—D. E. Shaw, of Ross County, Mo. I do not claim a husking peg to be worn across the inside of the fingers...

INSTRUMENT FOR SURVEYING AND CALCULATING AREAS—J. M. Lilley, of Greenville, Va. I claim the combination of three scales, A, B, C, and quadrant, E, as used for the purposes already set forth...

GRINDING MILL—Charles Tripp, of Ann Arbor, Mich. I do not claim a burr formed of a series of saws for grinding, for such device has been previously used, and although perhaps preferable thus constructed is not absolutely necessary in my improvement, as burrs constructed in other ways, and of a different material, such as stone, may be used with success...

WINDOW SASH—Francis Thrasher and H. B. Horton, of Akron, Mo. I claim the locking friction strip, for the purpose of raising the window with ease, and sustaining it at any height, substantially as set forth...

LIFTING JACK—Lucius J. Knowles, of Warren, Mass. I claim the loose collar, C, having a series of teeth arranged upon its inner face, in combination with a screw head, D, carrying a drop clutch, when arranged and operating in the manner and for the purposes as described...

SPRING HINGE—John Maxson, of De Ruyter, N. Y. I claim one or more springs acting against an inclined plane curved or otherwise, with a recess at the end so arranged as to close and hold a door, substantially as described...

CHAIN DRILLS—Joseph Ingila, of Fayette County, Ind. I am aware that a feed slide has been operated from a zig-zag wheel, and caused to draw or force the grain to the exit; this I do not claim...

FIRE PUGS—Lucien Moss, of Philadelphia, Pa. I claim the arrangement of the fire pugs, so that a gas pipe may be introduced within the metallic or other non-combustible casing surrounding the water pipe, or plug proper, said gas pipe being so arranged with openings or burners that the flame and heat produced thereby, caused by the gas flowing from them, being ignited may be made to act upon the water pipe, and cause the water therein to be thaved, if it should, by accident, or from neglect, have become frozen, or to produce with the metallic or other non-combustible casing, a temperature that will prevent the water in the plug proper from becoming frozen during times of extreme cold...

CUTTING BREAD—James Naughton, of Cincinnati, Ohio. I claim the arrangement of the swinging plate, h, gage plate, g, and set screw, C, when arranged with the springs, f, and curved lever, J, K, for gauging the thickness of the slice of bread cut, and discharging it from the machine by the action of the lever, f, on the curved lever J K, all as and for the purposes specified...

BULLET MACHINE—Wm. H. Ward, of Auburn, N. Y. I claim, first, Arranging the feeding clamp and mechanism for operating it, in such a manner that the limit of the backward motion remains unchanged, while the forward motion is regulated by the amount of wire required to form the blank as set forth...

PROTECTING TREES FROM CANKER WORMS, &c.—A. T. Nute, of Roxbury, Mass. I claim my improved method of protecting a tree from the ascent of canker worms, the same consisting in applying finely pointed metallic wires or one or more strips of card teeth to the same, substantially as described...

PROTECTING TREES FROM CANKER WORMS, &c.—P. C. Rowe, of Boston, Mass. I am aware that for such purposes an encircling plate or roof has been applied around the trunk of a tree; also, that cotton batting or loose fibrous material has been wound around and fixed to the body of a tree, consequently I do not claim such means of preventing the ascent of canker worms...

HORSE SHOE NAIL MACHINE—John Woodton, of Boonton, N. J. I claim, first, The employment of the nail rod itself as a ratchet, constituting part of a ratchet motion, by which it is fed longitudinally to the machine, substantially as described, thereby insuring infallibly a proper length of feed, and dispensing with the necessity of gages to regulate the feed motion...

SEWING MACHINES—E. H. Smith, of New York City. I do not claim a shuttle from which the loop of needle thread is drawn, at every stitch, as shown in the patent of Joseph Brown, Jr., of May, 1865...

RE-ISSUES. PLOWS—George Watt, of Richmond, Va. Patented Dec. 9, 1859. I claim the curved standard, with its front or concave side rounded off, and its curved surface extended to intersect the mold board along its upper edge, x x x, substantially as and for the purposes set forth...

DIAPER PINS—Joshua Heilmann, (assignor to Ignatius Sturt) of New York City. Patented dated July 21, 1857. I claim the combination of the sliding curved pin, C, with the shield or case, A, substantially in the manner and for the purposes described...

SEED PLANTERS—G. W. Brown, of Galesburg, Ill. I claim the arrangement of the screw friction clutch with the cam wheel, in the manner described...

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GENERATING ANHYDROUS STEAM—Wm. M. Storm, of New York City. I claim the arrangement of means substantially such as set forth, for rendering steam anhydrous, without the exposure of the tubes or drying vessel to the direct action of the fire or hot products of combustion...

REVOLVING SNOW EXCAVATORS FOR RAILROADS—J. Army, of Wilmington, Del. I claim, first, The obliquely set side paddle wheels, CC, whose axis lies in a plane, vertical to, and at right angles with the track and diverges downward from a point over the center of the track, and whose arms, radiating in a plane at right angles with said axis, have upon their extremities edged or toothed paddles, e, e, so arranged as that each one shall, when at the lowest point of the plane in which it revolves, be in a horizontal plane and oblique to the rail of the track, substantially as and for the purposes set forth...

SUB-SOIL PLOWS—John Wood and Reuben North, of Rochester, Wis. We are aware that a sub-soil attachment to plows is very common; also, that a thin, fixed blade has been arranged under the bottom of the surface plow, therefore we do not claim such attachment as our invention...

MACHINERY FOR DRESSING WARPS—Saml. Campbell, of Whitestown, N. Y. I assign to John C. Whittier, of Northbridge, Mass. I claim the method of dressing warps by means of brushes above and below each section of yarn, said brushes being alternate in their movement, and constructed to come in contact with, and leave the yarn gradually by the mechanism described, or any other substantially the same...

LATERAL FEED MOTION FOR SAWING MILLS—K. R. Olmstead, of Chicago, Ill. I claim the combination of a lever and cam or eccentric with an inclined plane, set rod, wheels, and racks, constructed, arranged and operated substantially in the manner and for the purposes set forth...

DIGGING PLOWS—Ezra Peck, of Deer Park, N. Y. I wish it to be understood that I do not claim a rolling cylinder with either straight or curved teeth, as this has before been used, but I am not aware of any tooth having before been constructed and shaped in the manner shown so as to enter the earth with only a very small expenditure of power as the cylinder progresses...

HAIRNESS BUCKLES—John Prendergast, of Boston, Mass. I do not claim a buckle formed with a bridge for support of its tongue, when the front end of the tongue is arranged with respect to the body of the buckle as above specified...

SIGNAL LANTERNS—J. R. Pierce and Leavitt B. Austin, of Oswego, N. Y. We claim the combination of a traversing chimney and lamp, so arranged as to avoid the bad effect of the lamp's smoke in signal lanterns in the manner set forth...

SEWING MACHINES—Ephraim Russell, of Coatesville, Pa. I claim, first, The combination of the screw friction clutch with the cam wheel, in the manner described...

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HORSE SHOE NAIL MACHINE—John Woodton, of Boonton, N. J. I claim, first, The employment of the nail rod itself as a ratchet, constituting part of a ratchet motion, by which it is fed longitudinally to the machine, substantially as described, thereby insuring infallibly a proper length of feed, and dispensing with the necessity of gages to regulate the feed motion...

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SEED PLANTERS—G. W. Brown, of Galesburg, Ill. I claim the arrangement of the screw friction clutch with the cam wheel, in the manner described...

Patent dated May 8 1855: I claim, in combination with the hinged frames or hinge-joint, the locating of the conductor's or driver's seat in rear of the supporting axle, so that as he moves forward or back on his seat, the rear frame may act as a lever for lowering or raising the seating part of the machine, and thus throw it into or out of the ground as circumstances may require in turning around or passing over any obstruction substantially as set forth.

DESIGN.

BAROMETER CASES.—T. R. Timby, of Medina, N. Y.

**A Batch of Information.**

MESSEURS. EDITORS:—A Polish gentleman once told me that a liquid salt (perhaps fluid borate of soda) was sold in Poland, which could be used with a brush and was employed over the whole of the inside of rooms, and rendered them completely fire-proof, in place of alum water, or solution of iron or tin.

There appears to be, a want of some article to fasten manuscripts in place of vulcanized india-rubber, which I have found to perish soon. Could not a strap of Chamois leather be easily contrived, say half an inch wide, attached to one side, and passed through an eye, similar to the elastic or French gloves?

Your article, "Steam Power versus Wind," reminded me of a conversation I had with a person in Tarrytown, who remarked, he had a freighting vessel there which made its passage almost equal to steamboats. On enquiring about her construction, I found she was built somewhat of a scow shape, drawing little water, in fact like the ice boat, working upon the surface and not displacing much water, and kept to the wind by an ingenious center board, which the helmsman can raise or depress at pleasure.

I think you are mistaken about an artificial ultramarine being produced from cobalt. The cost of the cobalt blues is more than ten times that of the average of artificial ultramarine, so much so that great pains have been taken to rid the same of the purplish hue which it has, so as to make it resemble cobalt, which, when pure, is the only pure blue color known among artists, and is much more costly for glass and porcelain pigments than any other, as I know, selling them both to consumers.

If marble is simply a carbonate of lime, why cannot it be imitated somewhat like the plaster of Paris or sulphate of lime, and in place of tedious sculpturing, why cannot cuts be made, like those of bronze? S. N. DODGE.

[Our correspondent's letter is full of varied information; therefore, we have pleasure in adding to it a few remarks of our own. The liquid glass sold in Poland is soluble silicate of soda; it is much used on the continent of Europe, and might with advantage be employed here. There is a variety of ultramarine made from cobalt combined with alumina, but the best is manufactured from alumina, silica and soda, with a little sulphur, in fact it is the artificial production of the mineral lapis lazuli.

The reason why marble cannot be very successfully imitated, is that its beauty depends upon the slowness with which it has been deposited and the pressure to which it has been subjected; we must attain some mechanical equivalents for these forces, or we shall never be able to compete with the rocks of Mother Nature, and, as yet, we do not possess them.

**Effect of Saleratus on the Teeth.**

Dr. S. Baker, of Portsmouth, N. H., has sent us three human teeth, one of which is perfect, another has been steeped in a solution of cream of tartar and it is slightly corroded, while the third, that has been immersed in saleratus, is completely eaten into holes. We do not, however, think this is a fair test, as we perfectly well know that in baking, it would be decomposed, and the alkali which it contains would form some less virulent compound with one of the constituents of the bread, most likely an acetate of potash, in which case the teeth would not be much injured.

Carbonate of potash or saleratus cannot be in itself so very injurious; for in Britain, where teeth are proverbially good, there is a great quantity of baking powder used, one of whose chief constituents is this same salt.

The dentists are evidently on the wrong track in trying to discover the cause of decay

in American teeth, and we have an idea that were they to turn their attention to the climate and general habits of life among us, they would be nearer the mark. Let them try.

**Important Patent Case.**

UNITED STATES CIRCUIT COURT—SOUTHERN DISTRICT OF NEW YORK.

Before Hon. Charles A. Ingersoll, Justice.

Nov. 11.—*Alfred T. Serrell vs. Denmark P. Collins and Abijah Pell.*—This was a suit for the infringement of Letters Patent, granted by the United States to the plaintiff, Alfred T. Serrell, for a machine for making wood mouldings, in which he claims as his invention, the combination of moulding cutters with an adjustable feed ring or rings, in such relation to each other that the ring or rings shall travel in a line with the deepest cutting member of the moulding cutter and be capable of maintaining that relation under the varying circumstances of a change of form or size of moulding.

The original patent of Mr. Serrell was issued on the 16th day of May, 1848. His claim in the original patent was limited to a combination of three things: that is, the feeding device, rotating cutters, a stationary plane. He soon found that persons infringed by using only two of the three parts, that is, the feeding device and cutters, omitting the stationary plane, which was not essential to the use of the other two parts; he therefore brought suit against such alleged infringers and was defeated upon the ground that he had claimed only a combination of three things, while the alleged infringers had used only two of those things in combination, and therefore had not infringed the claim, although he was equally the first inventor of the two things alone in combination.

Mr. Serrell, in view of this defect in his patent, thereafter surrendered it and obtained a re-issue on an amended specification; and the present suit was brought upon the re-issue against the defendants for using the two parts in combination: that is, the feeding device and revolving cutters in combination.

The defendants set up in defence the Woodworth Patent and a machine stated to have been made by Horace V. Seigler and one Howe, in which a feeding roller with sharp spikes in it had been used as a feeding device in combination with cutters, before the invention of Serrell, and also, that Serrell's invention was not patentable; but the defendants failed in their attempt to maintain any of their defence, and after a severely litigated trial of six days, the jury rendered a verdict in favor of the plaintiff and his patent, and found \$2,000 damages against the defendants for what they had used the invention during the time between the re-issue of the patent and the commencement of the suit—leaving them still liable for what they have used it since the commencement of the suit, and also are to be restrained by injunction from further use of it. This verdict also establishes the validity of the patent.

For the plaintiff, George Gifford. For the defendants, Charles M. Keller and Peter Van Antwerp.

**MI or Cinnabar.**

The first of these is the ancient and the last the modern name for the same substance, which is a mineral of beautiful shining red color, and is an ore of mercury or quicksilver. Artificially prepared cinnabar is much preferred to the native, as a pigment, because of its freedom from earthy impurities, and it has long been an object of chemical manufacture, and is generally known as vermilion. It is a compound of sulphur, with mercury, each in equivalent proportions. To manufacture it, about five or six parts of mercury are added to one of melted sulphur, and when thoroughly combined and constantly stirred, heat and light are evolved, and a violent cracking and spitting indicate the termination of this part of the process. The result is a dirty, blackish red mass; this crude product, after being pounded, is mixed with a small quantity of sulphur, this is placed in a glass flask until it

is about half full, when it is closed with a charcoal stopper. The flask is then placed on a bed of hot sand (kept hot by a slow drawing furnace), and is left to remain thus red-hot for some hours, at the end of which time the cinnabar is found sublimed in the flask.

In Amsterdam, where it was first made, they still pursue a similar method to the one they have always done, but the one we have given is the essence of them all. Of all kinds of vermilion now made, the Chinese is the best, being sold for about six times the price of home made; it has a rich, almost inclining to carmine color, and no foreign substance can be detected in it, except a little glue.

At the present time we apply the term minium to red lead, which is made by roasting lead in a slow reverberatory furnace having a broad hearth so that a great surface can be exposed to the action of the heated air. It is kept continually worked up and down until the whole mass changes to the well-known color of red lead. Minium is often used to adulterate vermilion, and it is a fair supposition that the reason why our ancestors called them both by the same name was that they did not know which was which.

**Supposed Meteorite.**

On the 17th of June last, there fell, about ten miles southwest of Ottawa, Ill., a quantity of cinders. The weather had been showery, but there was no thunder or lightning. There appeared to be a small black cloud hanging over the spot where they fell; the larger ones were imbedded in the earth, while the smaller ones were only half buried. On the 17th of September, this year, a mass of lava "the size of a barrel," says the *Sunny South*, of Aberdeen, Miss., fell about ten miles from that place, and at the time it excited a great deal of attention for miles around. The former of these, we have every reason to believe, and we think that the appearance of the cinders point to a terrestrial rather than a celestial origin; but, we think, that the editor of the *Sunny South* has drawn upon his imagination a little and colored the facts of our first instance. We should much like to know how large the piece of lava was that fell at Aberdeen; for a piece the "size of a barrel" is very indefinite and unsatisfactory.

**Sewers.**

When from a little village, there arises in a few years, a large city, one of the first and most important considerations ought to be the sewerage of the place, as on this depends the well-being in mind and body of its inhabitants. No city ought to be built where there is not a sufficient fall for its sewerage, and it will be found in the plans of all ancient cities that the builders knew of this advantage, although often their waste ran through the open streets. Yet, in the history of the past, there is nothing the subject of so much praise and elegant description as a "city set on a hill," and one of its chief advantages was its facilities for getting rid of the sewerage material. In all places drains are an important consideration wherever any number of persons are congregated together, and as health is our dearest blessing, it should be first attended to. One of the most valuable means of doing so is to take care that near our dwellings, or in the places where we meet, there are no heaps of decaying animal or vegetable substances which can impair our health, or render us unfit for the discharge of our duties, as most assuredly they do.

**American Breech-loading Guns.**

Mr. Eastman's six breech-loading cannon, recently imported from America, were tried on the Arsenal Wharf, Woolwich, under the supervision of Lieutenant-colonel Wilmot, superintendent of government gun factories at Woolwich, and having been twice fired with a double charge of blank cartridge—namely, 20 lbs. of powder—they were examined, and found to have stood the test satisfactorily. From their enormous weight (17 tons) they did not evince the slightest recoil.—*London paper.*

**Nail Machine.**

This machine punches the nails from a rod, which has been previously rolled to a peculiar shape, to produce a number of partly-formed nail blanks, of which several are arranged side by side, with their length parallel to the width of the rod. The peculiar form to which it is rolled gives it in certain parts of its longitudinal section the appearance of a ratchet, and the invention consists in employing the nail rod itself as part of the ratchet motion which feeds the machine. The invention also consists in giving the punches a series of movements back and forth to the nail rod, and a similar intermitting motion along the rod, so that a greater number of nails than the number of the punches may be cut from the width of the rod. John Wootton, of Boonton, N. J., is the inventor of this machine.

**Bombs.**

An improvement in these projectiles was patented this week by Henry Bates, of New London, Conn., which consists in attaching to the butt end of a bomb, or other projectile of similar character, a spiral spring or coil of wire, which, when the projectile is placed in the gun from which it is to be discharged, is compressed together, and lays close to the projectile, but when it is discharged is caused, either by reason of its own elasticity, or by the resistance of the atmosphere, to extend itself, in the form of a tail, some distance in the rear, where, by the resistance it meets with, it serves to direct and steady the course of the bomb. He has also so improved the fuse tubes that they cannot be blown into the bomb on the discharge of the gun, and so set fire to the bomb before it has accomplished its flight.

**Elevator.**

This invention is intended to raise bricks, stone, mortar, and other materials, to an elevation, without the use of ladders, baskets and pulleys, and the like. It consists in a hollow vertical tube the height required, and in the bottom of this the articles to be raised are fed; one man or more may turn the handle of the crank, and by suitable and simple mechanism the contents will be raised. It is continuous in its action, and is the invention of J. Crawshaw, of Rochester, N. Y.

**Feeding Paper.**

Richard M. Hoe, of this city, the inventor of the celebrated printing press, has this week patented an improvement in the feeding device of cylinder presses, by giving the drop roller, or the one that pulls the paper to the type, a positive instead of an intermitting motion, depending on contact with the printing cylinder, such as it formerly had. He gives it a positive motion, independent of any other part.

**Grinding Mill.**

This invention employs a grinding burr or stone in combination with adjustable rests, whereby articles or substances may be ground very rapidly, and by very simple means. It is mainly applicable for grinding food for stock, although it can be applied to other useful purposes. It is the invention of Chas. Tripp, of Ann Arbor, Mich.

COMMISSIONER HOLT'S decision, as published in our last number, is attracting general attention already. We have received letters strongly in praise of its ability and liberality. It encourages inventors to set themselves to work under the conviction that their rights will be properly cared for at the Patent Office.

REMOVAL.—We regret to state that Capt. Herbert has been removed from the position of Chief Examiner in the Patent Office. He was a useful and much esteemed officer, and we sincerely hope that the causes which have led to his removal may be set aside, and he be restored again to his former position.

The highest speed ever made on the ocean was by the clipper ship *Flying-Scud*, 460 miles in twenty-four hours.