

NEW AND IMPORTANT ARRANGEMENTS.

The rapid growth of our Patent Agency Business during the past three years, has required a great addi tion to our ordinary facilities for its performance, and we are now able to announce the completion of a system which cannot fail to arrest the attention of all who have business of this kind to transact.

OUR PRINCIPAL OFFICE

will be, as usual, at No. 128 Fulton street, New York There is no other city in the Union so easy of access from every quarter as this, consequently there are greater advantages in regard to the transmission of models, funds, &c , through the various channels that center in New York. Two of the partners of our firm reside here, and during the hours of business are always at hand to counsel and advise with inventors. They are assisted by a corps of skillful Examiners, who have had many years of active experience in the preparation of cases for the Patent (ffice.

To render our Patent Agency Department complete in every respect, we have established a

BRANCH OFFICE IN THE CITY OF WASHINGTON

on the corner of F and Seventh streets, opposite the United States Patent Office. This office is under the general care of one of the firm, assisted by experienced Examiners. The Branch Office is in daily communication with the Principal Office in New York, and personal attention will be given at the Patent Office to all such cases as may require it. Inventors and others who may visit Washington having business at the Patent Office are cordially invited to call atour office.

A SPECIAL REQUEST.

Our facilities for the speedy preparation of cases pre-vious to the application for the patent being much more extensive in New York than at Washington, we especially require that all letters, models and remittance should be made to our address here.

EXAMINATION OF INVENTIONS.

We have been accustomed from the commencement of our business—twelve years since—to examine sketche and descriptions, and give advice in regard to the novelty of new inventions, without charge. We also furnish a printed circular of information to all who may wish it, giving instructions as to the proper method which should be adopted in making applications. This practice we shall still continue, and it is our purpose at all times to give such advice freely and candidly to all who apply to us. In no case will we advise an inventor to make application unless we have confidence in his success before the Patent Office.

Our extensive experience in mechanical and chemical improvements enables us to decide adversely to nearly one half of the cases presented to us for our opinion, be fore any expense has occurred in the preparation of the case for a patent.

When doubt exists in regard to the novelty of an in vention, we advise in such cases a

PRELIMINARY EXAMINATION

to be made at the Patent Office. We are prepared to conduct such examinations at the Patent Office through our "Branch Agency," upon being furnished with s sketch and discription of the improvement. Our fee for this service will be \$5.

After sufficient experience under this system, we con fidently recommend it as a safe precautionary step in all cases before application is made for a patent—not that there will be no rejections under the system. It is im possible to avoid such results in many cases, owing to the exceedingly wide range taken by the Examiners in the of cases; but, nevertheless, many applicants will be saved the expense of an application by adopting this course. Applicants who expect answers by mail must enclose stamps to pay return postage.

THE COSTS ATTENDING AN APPLICATION

for a Patent through our Agency are very moderate, an great care is exercised in their preparation. No cases are lost for want of care on our part in drawing up the papers, and if the claims are rejected, we enter upon a speedy examination of the reasons assigned by the Com missioner of Patents for the refusal, and make a report to our clients as to the prospects of success by further

A circular containing fuller information respecting the method of applying for Patents can be had gratis at eitherofour offices.

REJECTED APPLICATIONS.

We are prepared to undertake the investigation prosecution of rejected cases, on reasonable terms. The close proximity of our Washington Agency to the Patent ce affords us rare opportunities for the examinatio and comparison of references, models, drawings, docu ments, &c. Our success in the prosecution of rejecte cases has been very great. The principal portion of our

charge is generally left dependent upon the nal result. ed cases which they have prosecuted are invited to correspond with us on the subject, giving a brief history of their case, enclosing the official letters, &c.

FOREIGN PATENTS.

We are very extensively engaged in the preparation and securing of Patents in the various European coun tries. For the transaction of this business we have office at Nos.66 Chancery Lane, London; 29 Boulevard Sain Martin, Paris, and 3 Rue Therrsienne, Brussels. W think we may safely say that three-fourths of all the European Patents secured to American citizens are procured through our agency.

Inventors will do well to bear in mind that the English law does not limit the issue of Patents to inventors. Any one can take a Patent there.

Circulars of information sent free on application Remember the SCIENTIFIC AMERICAN PATENT AGENCY, No. 128 Fulton street.

MUNN & COMPANY, Proprietors,

[Reported officially for the Scientific American.] LIST OF PATENT CLAIMS Issued from the United States Patent Office

FOR THE WEEK ENDING MAY 19, 1857.

CORDAGE MACHINES—James P. Arnold, of Louisville, Ky: I do not claim giving motion of rotation to the flyers on their own axes by means of a friction band, or by pulleys covered with leather in connection with a circular track, these being old and well known devices, and referred to as such in this specification.

Neither do I claim the circle or ring composed of a series of segments described in the patent granted to Milton Wallwork. April 7th, 1857.

But I claim the combination of a series of two or more pulleys, each pulley arranged to rotate on its own axis, and to revolve around a center common to all, with a ring concentric to said circle of revolution, whose surface adjacent to the pulleys, is elastic, and forms a track for the pulleys to roll on, substantially in the manner and for the purpose set forth.

PORTRUCIOS—Robert Arthur, of Philadelphia, Pa. I.

PORTFOLIOS—Robert Arthur, of Philadelphia, Pa.: I am aware that a letter file is made of a broad band of india rubber, which is used to keep together, by means of its elasticity, a bundle of folded letters.

I am also aware that a file has been made by confining together two stiff boards by means of an elastic cord or band passing entirely around them, or fastened to one board, the papers being put in at one end by drawing the bords a Part

board, the papers being put in at one end by drawing the boards aparer that a file has been made by confining together two stiff boards, by means of an elastic cord or band Passing entirely around them, or fastened to one board, the papers being put in at one end by drawing the boards apart.

boards apart.

I am also aware that an elastic clasp for pocket books, and probably other articles, has been made: these I disclaim.

I claim, first, A portfolio made with an elastic back or hinge combined with an elastic fastening.

Second, I also claim making the hinge and fastening adjustable for the purpose specified.

PROJECTILES—Christopher C. Brand, Conn.: I do not claim the employment of metal or me. tallic pluss or the equivalents thereof made to closely encompass the fuse rope after it has been inserted in the fuse tube or plug.

encompass the fuse rope after it has been inserted.

I do not claim the application of wings to a projectile
whether said wings be stationary or movable.
But I claim the improved fuse tube or plug, C, as constructed with two plug chambers, kl. separated by a
breech or partition, N, the same being forthe purpose as
specified.
I also claim the improvement of making said tube, C,
with an encircling chamber or recess, o o, arranged substantially in the manner and for the purpose set forth.

DRESSINO PIECES OF LUMBER—Harvey Brown, of New York city: I do not claim the saws, planer or jointers separately considered, as they are not new and may be substituted in my invention by other forms of saws, planers and jointers.

I claim the movable, frame E, or its equivalent as supporting the planer, B, and the joint s, C, which by neans of the set screws. F F, connect it with the frame, D, by which arrangement pieces for barrel heading or other purposes can be sawed, planed and jointed simultaneously of any desired thickness or width within the compass of the machine, substantially in the manner and for the purposes set forth.

HAND TRUCK—ZeButt, of Lincolnton, N.C.: I claim the manner described of constructing, arranging, com-blining, and operating the dumping truck, or any other manner or method essentially the same.

Dogging Lumber in Planing Machines—David N. B. Coffin, Jr., of Newton, Mass., and Henry D. Stover, of Boston, Mass.; First, We claim the bar, b, constructed and arranged substantially as set forth, in combination with the rack, c, or its equivalent.

Also the device for the rear end of the platen, so constructed and arranged that the dogging bars are clamped firmly to the platen, at the same time that they adjust themselves to the form and position of the end of the lumber by the operation of a single screw substantially as described.

MACHINE FOR GATHERING AND DEPOSITING DIPPED MATCHES—Thomas Cook, of New York city. I claim in packing matches into boxes automatically, the method of leeding the "dipping board" in connection with the operation of the discharging pins specifically as specified. I also claim the receiving table, with its gathering and delivering blocks, in combination with the aforesaid means for conveying and discharging the matches from the "dipping board," the whole being constructed and operating specifically as set forth.

Gas Regulators—Robert Cornelius of Philadelphia, Pa. I claim the employment of the auxiliary spring box. 5 f. communicating directly with the main chamber G. in combination with the vaive, 10 11. communicating with the middle chamber for the purpose of preserving the uniform action of my regulator under considerable variation in the main pressure.

TREATING STEAM BRAID FOR HATS, &c.—George Cornwall, 2nd, of Milford, Conn., I am aware that it is common to smooth braid by passing it between plain rollers, I do not claim such rollers.

Nor do I claim broadly, the employment of conical rollers for curving materials of all descriptions, since they have been heretofore used. An example is seen in E. Caiver's patent, 1833, for making circular saws.

But I claim the method of simultaneously beveling, curving, stretching, and smoothing the braid as described.

[Straw braid, according to the common practice, is stretched by the fingers while being sewed together, to form hats. This involves the loss of considerable time and besides the necessary bevel is not thus given to the braid. The method embraced in the foregoing claim for treating straw braid, gives it the necessary bevel and cility and regularity, producing thereby handsomer straw

PIAMOFORTE ACTIONS—Spencer B. Driggs, of New York city: I do not confine myself to either of the modes of balancing or supporting the centers of motion of the keys represented, or to any other mode of doing it. But I claim balancing or placing the centers of motion of the keys at, above, or near the top thereof, instead of at the bottom or centre for the purpose specified.

IBy placing the centers of motion of the keys in the no ition stated, the jack acts more directly and more forci. bly on the key hammer, especially in the upper portion its movement. By this arrangement the hammer is also enabled to escape more rapidly, and can also be checked in a higher position, thereby admitting of quicker repeat

GUNPOWDER-Lammot Dupont, of Wilmington, Del. I do not desire to claim generally the glazing of gunpow der or the employment of nitrate of soda in the manu facture of gunpowder, except in combination with th

facture of gunpowder, except in combination with the glazing of the powder so made, as aforesaid.

But I claim the manufacture of gunpowder by the use of nitrate of soda, and the glazing of the powder so made, in the manner and for the purpose described.

BLANKET FOR CALICO PRINTING MACHINES-Fallow, of Lawrence. Mass.: I claim the combination of the short India rubber blanket with the multiple fold of "greys" passing once through the machine, and operating in the manner substantially as set forth.

VIOLINS—Bradley Fitts, of Charlton, Mass.: I claim the application of bells within the interior of or behin the sounding-board of a violin, or other stringed musica instrument, substantially as and for the purpose se The bells thus placed behind the sounding board of s stringed instrument vibrate in harmony with the strings

and thus produce a peculiar and pleasing combination JOINERS' PLANE—James Lashbrooks, of Owensbor ough, Ky.: I claim the curved plane iron, C, and cap, F, in combination with the curved back rest and slotted plate, D, operating as described, and for the purpose set forth.

Lowell, Mass.: I do not claim generally the employment of curved guides near the bottom of the picker staves, to direct the upper ends of the staves in straight lines parallel with the warps, as I am aware that plates with curved slots to receive and form guides to stude on the picker staves have been employed, which device is less simple and more expensive in its construction, and does not work with so little friction as mire.

Nor do I claim of itself, enclosing the retracting apring in a box carried by the rocker shaft.

But I claim the combina ion, substantially as described, of the reak, e. carried by the rock shaft, the curved sliding guide rod, b, connected with the picker staff, and the box, g, attached to the rock shaft, the later serving not only to guide the sliding guide rod, but to contain the spring by which the picker staff is thrown back after throwing the shuttle, the whole operating substantially as set forth.

[The top of the picker staff requires to move parallel

[The top of the picker staff requires to move parallel with the shuttle, in order to throw the latter in a straight line across the race-way. Many devices have been employed (and some of them very complicated) to effect this object. The above parallel motion is accomplished by very simple devices.]

CLEANING GRAIN—J. R. Gates, of Eckmansville, O.: I claim the box. H. divided into two compartments by the partition, d, the fan box, E, and scouring box, A, provided with the stones, B, and rotating beaters, a, when the parts are arranged relatively with each other, as shown.

shown.

It being understood that I do not claim separately either of the parts specified, but all the said parts, when arranged and combined so as to operate conjointly, as shown, for the purpose set forth.

[The blast spout, the screen, and the scouring box containing rubbing stones and rotating beaters, are so arranged in this machine as to clean grain in a most perfect manner, and fit it ready for milling]

RE-DRESSING MILLSTONES-W. Y. Gill, of Henderson, Ky.: I claim the combination of two or more picks, E E, with the guiding and operating screw shaft. B, and lifting cams. h h, when said parts are constructed and arranged and operated in manner and for the purpose set forth.

[With this machine any person capable of turning a crank can redress the lands and furrows of a millstone in a very accurate and expeditious manner. The novelty or invention consists of a number of picks guided and fed by means of a screw shaft, and as they traverse are caused to rise and fall successively, by means of a cam shaft.

The chisels, or blades of picks, are so confined that the liability of their being broken, owing to their high tem per and concussion with stone, is completely avoided.]

Pumps—Silas Hewit, of Seneca Falls, N.Y.: I claim the arrangement of tubes, E. E. piston head, R. and valves, F. and F. constructed and operated in the man-ner and for the purposes set forth.

Grain And Grass Harvesters—John H. Heyser & Edward M. Mobley, of Hagerstown, Md. . We do not claim operating the fork, B. by means of cams on the driving wheel.

But we claim operating the cutter bar, O, from the driving wheel, A. by means of fork, B, and arm, E, in combination with rocker, G, and slotted arm, H, when said parts are constructed and arranged to operate in relation to each other, as described.

WASHBOARDS—Edward and Britain Holmes, of Bu falo, N. Y. First, We claim increasing both stiles of the washboard at the same time, and also entering the zinc into the incision in both stiles at the same time when the same is done by means substantially as so forth.

forth.

Second. We claim raising and lowering the end of the sliding arm, a, at its connection with the vibrating lever, b, for the purpose of controlling the number of blows to given by the drivers, and the force thereof, when the same is accomplished by means and used for the purpose substantially as described.

same is accomplished by means and used for the purpose substantially as described.

Third, We claim the combination of the expanding iron frames, with the wedge and cutters, for the purpose as set forth.

Fourth, We claim the combination and arrangement of the series of levers, g h g h h j k h y and r n, with the pin, g m, and spiral spring, r n, s and hook, l m, or there equivalents, for the purposes substantially as set forth.

Figh, We claim the combination of the spiral spring K, or its equivalent, with the lever.l, and rod, m, for the purpose of continuing the movement of the lever, l, after the incision is made in the stiles and the cutters withdrawn, so that the stiles will be extried to the zinc, and the zinc entered in the incision made by the cutters, substantially as described.

Sixth, We claim the application of the eccentric, or equivalents, for the purpose of applying power to make the incision in both stiles at the same time, and also to facilitate the entrance of the zinc into both stiles at the same time, substantially asset forth.

Removernor Photographs from Glass to Papen.

Removing Photographs from Glass to Paper Edward Howell, of Ashtabula, O.: I claim the mode transferring a positive impression from glass plate to pper, or other desired substance, by means of a coating beeswax upon the glass plate, as described.

FASTENING SHEET METAL ON ROOFS, &c.—Ass
Johnson, of Cairo, N. Y., (assignor to himself, William
Higbie, and Henry Link, of Little Falls, N. Y.): I claim
the self-adjusting fastener, as described, for the purpose
of attaching metallic coverings to buildings, and accommodating liself to the contraction and expansion of the
metal, and for fastening metals in any and all other
places where the contraction and expansion demand accommodation, substantially as set forth, or any mechanical device equivalent thereto.

ROLLERS FOR JOURNALS OF SHAFTS, AXLES, &c.— Wm. H. Main, of Litchfield, O. I claim arranging the two acries of friction wheels at any suitable angle with the line of the journal, so that when they (the said wheels) are placed in a suitable box or wheel, the jour nal of said shaft may be supported and braced in all di-rections—the friction wheels having their journals sup-ported by a series of embracing rings, which thus form their rolling bearings, in the manner described

DRESSING SEWING THREAD, &C.—J. D. Minder, o Killingly, Conn.: I do not claim the employment of revolving brushes for dressing sewing thread or yarn. But I claim the employment for dressing sewing thread and yarns, of a series of straight brushes arranged in pairs, and having a crank motion towards and from each other, so that the several pairs engage and move to gether along the thread or yarn, substantially as described.

This manner of arranging and operating brushes fo dressing thread and yarn after it is sized, is designed to obviate the use of a blower for this purpose, and to nish the thread in a superior manner to that now done by revolvingbrushes.]

APPROACH OPENING GATE—Geo. W. McGill, of Buffalo, N. Y.: I claim the combination of levers, G H I K rack, B, and cog wheel, A, as set forth and described, for operating a gate.

REDUCING ZING ORES—Alfred Monnier, of Camden N. J.: I claim the combination of the gas generator an the reducing furnace, H, arranged and operating as described.

RAISING WATER—Andrew Nicol, of Carbondale, Pa. I claim the rods, F G, provided with the valves, qq, an operated as shown, in combination with the chambein or vessels, A A' B B', suction pipe, D, and branch pipe is and the tube, c a be f, provided with the valves, ed b, the whole being arranged as described, for the pur roce spacified in

[This ingenious method of raising water is specially in tended for mines. The water is elevated through several chambers having valves, and placed at certain distance above one another. Two sets of conducting pipes an chambers are employed, whereby a continuous stream of water is discharged at the top of the mine.]

GEAR OF CARRIAGES Richard Murdock, of Balti-tore, Md. : I disclaim the short axles and the manner

more, Md. I disclaim the short axies and the manner of turning them about their attachment.

I also disclaim supporting the extremities during their movement on stationary train ways.

I also disclaim the swivel bar, c. and boxes, b b, in combination with the short axies, a a, connected with the extremities of the cross bar, as described, this having been secured to me by Letters Patent of the United States, bearing date the 24th day of June, 1856.

I disclaim also all devices in which the iore wheels remain parallel to each other while the vehicle is turning.

Ing.

I disclaim projecting the brace levers backwards and inwards from the short axles, as that has been done before, and is inferior to my plan, inasmuch as it has a more limited range of motion, and gives less control over the wheels when turning, and greater irregularity in their motion, and increased strain upon the tongue.

But I claim giving to the brace levers, f f, a forward and outward projection from the short axles, substan-tially in the manner and for the purpose specified.

Basis Faucer—Erastus Stebbins, of Chicopee, Mass.: I claim combining and arranging the tubular bearer. K, with the spindle, the valve case, and adjusting screw, substantially in manner and for the purpose specified.

I claim the combination and arrangement of the elevating and depressing cams, or their equivalents, h ik l, and the plane or bearing surfaces, m n, the same being applied to the spindle and valve, and made to operate together, essentially in manner as explained.

ROTARY PLANING CUTTER—Henry D. Stover, of Boston, Mass.: I claim the described method, or its mechanical equivalent, for securing double or single cutting irons to cutter heads, to hold them secure when in use, essentially in the manner and for the purposes set forth.

LIFTING JAOK—Wm. Thomas, of Hingham, Mass: I claim the retaining pawl, F, provided with the weighted arm. F, attached to the standard, A, arranged relatively with the pawl, E, and catch, G, substantially as shown, for the purpose set forth

[In this lifting jack there is an extension bar to a lever in such a manner that the jack can be readily adjusted to raise bodies to varying hights without block-ing up the standard, as required in operating the common jacks. By an arrangement of a sector with the lifting bars and chains, a nearly equal power is applied to the lifting bars at all points of their movement_a good improvement.]

SHIRT STUD—W. Vogt and J. J. Klink, of Louisville, Ky.: We claim shirt stude or buttons, sleeve buttons, breat pins, or any other article of jewelry or ornament, made with the bar, H, and the hook, U, for the purpose, and in the manner substantially as described.

ALLOWING PLAY TO THE ARBORS OF CIRCULAR SAWS—Harvey R. Wolfe, of Louisville, Ky.: I am aware that springs have been applied to saw mandrels or arbors in various ways, for the purpose of allowing the saw to have a lateral movement or play, and I therefore do not claim such movement in the abstract, or irrespective of the peculiar arrangement of the parts shown and described.

scribed.

But I claim the bar or lever, F, having an elastic and a stiff or rigid portion, and pivoted to the bar, G, as shown, the elastic end, e, of the bar or lever, F, being connected with the saw arbor or shaft, C, and the stiff or rigid part with the sliding guide, h, through the medium of the rod, it, and lever. I, the above parts being arranged substantially as shown, whereby the bar or lever, P, performs the double function of spring and lever, the saw and guide being both moved laterally when necesary, by actuating the bar or lever, and when the outer end of the bar or lever is secured or made permanent the inner end or part serving as a spring to allow the saw an independent lateral play or movement.

[It is posit vely necessary for correct sawing that the saw arbor should have some end play. The devices embraced in this claim provide for the proper lateral play of the saw arbor, and for bringing it back to its proper relative position with the log at the commencement of each cut.]

CERTRIFUGAL BATTERY—Albert Potts, of Philadel-phia, Pa.: I claim the combination substantially as de-scribed and for the purposes specified.

STENCIL PLATE PRINTING—Samuel F. Sanford, of Fall River, Mass.: In the London Mechanics' Magazine, Vol. 67, page 593, 1852, may be found a description of a stencil press, which consists in the use or flat or curved stencil plates, in combination with color rollers, composed of flexible materials, for depositing colors on fabrics through the plates; I therefore disclaim the invention of said device.

But to the best of my knowledge and bellef it is new to have the stencil plate made in the form of an endless belt, as set forth.

I claim having the stencil plate made in the form of an

belt, as set forth.

I claim having the stencil plate made in the form of an endless belt, H, as and for the purposes set forth.

[This method of forming the stencil printing plates in one continuous apron, gives to them something of the character of rotary printing presses, thus rendering them more rapid in operating, and capable of being driven by steam power. Stencil printing is now all performed by hand labor.]

COMPRESSING THE ENDS OF BLIND SLATS—Luther T. Smart, of Manchester, N. H.: I claim the machine substantially as set forth, or its equivalent, for crimping shades to blinds, consisting essentially of the sliding dies, of f. in combination with the came, j i and m, the rods p, the slide, l', and the pressure studs, n n, with the rack, k k, connected together, and operating in the manner substantially as set forth.

SAFETY VALVES WITHIN STEAM BOILERS—George P. Clark, (assignor to himself and Wm. M. Little,) of Newark, N. J.: I claim the arrangement of the inverted valve, c. in globe, A. pressed to its seat by the spring, D, from below the clavis, K, and the escape pipe, I, extending through the boiler, all constructed and arranged within the boiler as described, and for the purpose set

INDICATING THE SPEED OF VESSELS AND DEPTH OF WATER—David Hinman and F. B. Fournier, of Beres, O., (assignor to themselves and R. I. Parker, of Ogdens, blurgh, R. Y.): We claim the arrangement of the movable wing, D. with its joint, d, the rod, E, and rack, F, combined with the dial or indicator, substantially as described for the purpose set forth.

Scribed for the purpose set forth.

PRINTING IN COLORS—Wm. Croome, of Brooklyn, N.
Y.. I claim the movable tablets for the separate colors, in combination with the guided roller, or equivalent surface, for taking up the inks, operating substantially as described.

I also claim, in combination with the printing surface and with the inking surface, the corresponding guides for insuring the uniform action of the inking surface upon the printing surface, as set forth.

MOWING MACHINES—Thomas Harding, (assignor to Warden, Brokaw & Child,) of Springfield, O. . I claim the combination with a mowing machine of the culiarly constructed truck, A.B. when both are arranged to operate in relation to each other, in the manner and for the purposes set forth.

LANTERN AND OIL CAN—Wm. G. Russell, (assignor to himself and Wm. Sewell,) of New York City: 'do not claim either a lamp or an oil can. But in view of the new and useful result obtained, and the security for life and limb by my illuminated oil can, claim, as a new article of manufacture, the attachment of a lamp or light to an oil can or feeder for illuminating the place to be oiled, substantially as and for the purposes specified.

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beyond the edge thereof, for steadying the sheet while being folded, as specified.
Fourth, I also claim reducing the speed of the succeeding sets of rollers, from first to last, so as to proportion the distance traversed by the sheet at each succeeding fold to the reduction of its size, so that the time the sheets are moving from point to point shall be equal, or nearly so.

nearly so.

Fifth, I also claim the adjustable stop for determining
the prop I position of the sheet to receive its second and
succeeding folds, as specified.

Sixth, I also claim the combination of the fly with the
folding apparatus, for laying off the folded sheets, as described.

folding apparatus, for laying off the folded sheets, as described.

Looms—N. B. Carney, (assignor to J. B. Livingston, C. H. Haswell and R. U. Root,) of New York City; I. Caim, first, the weaving of fabrics within and upon a circular frame, or looms, arranged about a common center, producing the fabric at the central part, the shuttle being carried in a circle round the frame or loom in a continuous movement, the war, shuttles and filling being placed at the top of the loom and the machinery for operating acting underneath, the weaving being effected by machinery as described.

Second, I claim the combination and arrangement of the machinery described, acted upon and driven by the sput wheel, C. and its eccentric grooves and their connections by which the sliding frames holding the warp wires or heddles are caused to reciprocate in opposite directions in equal times and regular succession, and the shuttles are made to rotate about the circumference of the loom in a plane perpendicular to the planes of motion of the sliding frames, and in equal times so as to pass between the upper and lower sets of warp threads when apart, thus producing a fabric at the central point.

Third, I claim the combination of the roller covers and barrels, operating together as described.

Fourth, I claim the combination and arrangement or mechanism of the flat wheels or disks with their grooves with secentrics, cams and connecting rods end slides, the rollers covers the levers, bolts and slides, the levers with ecentrics, cams and connecting rods end slides, the rollers covers the levers, bolts and slides, the levers carrying a motion from the rollers and covers to the warp wires, so as to hold them fast or set them free to move with the frames, the whole operating in conformity with Q and its connections, thereby regulating the pattern, shape or figure of the fabric to be woven.

Fifth, I claim the giving to the shuttle the same continuous line of motion, without any divergence, thus avoiding the danger of injuring the operator or t

Shuttle.
Sixth, I claim the form and construction of the shuttle
Q; r, as described, having its teeth on the underside or
outside of its arc, and also the shuttle, Q, s, constructed
so as to adapt itself to the increasing growth of the fabric,
and pressing up the filling as described.

Spring Hings—Dr. Jos. S Smith, of New York City. Anti-dated May 12, 1857: I claim the use of the center pin, screw pin and capped springs, constructed, secured and operated within the tubular knuckle, having a double lapped joint, in the manner and for the purpose practical.

double lapped joint, in the manner and for the purpose specified.

ELECTRO MAGNETIC FIRE ALARM TELEGRAPH FOR CITIES—Wm. F. Channing, of Boston, Mass., and M. G. Farmer, of Salem. Mass., assignors to Wm. F. Channing, aforesaid. We claim, first, the signal system described, consisting of a series of signal stations, scattered at intervals through a whole city or town, or any part thereof, and telegraphically connected with a common center or point, or with each other, by one or more signal circuits, by which means a constant communication may be established and maintained between all parts of a city or town, however extended and with the center or centers at which the signal circuit or circuits converge or meet, so that the moment a fire occurs, its existence and locality may at once be known at the center of the system, and efforts for subduing it properly directed.

Second, We claim the alarm system described, consisting of a series of alarm stations, suitably distributed throughout a whole city or town, or any part thereof, and nelegraphically connected with a central station, by one or more alarm circuits, by which means a public alarm of the existence and locality of a fire may be given at different points.

Third, We claim, in combination with the alarm system, for striking the number of the district upon the alarm be lis, the signal system, for communicating the number of the stations, as well as for communicating an alarm to the central station.

SHINGLE MACHINE—C. M. Young, of Sinclearville, N. Y. I do not claim the movement of the bolt, or the manner in which it (the bolt) is presented to the knife, irrespective of the means employed for effecting the pur-

irrespective of the means employed for the country and parpose.

But I claim operating or giving the necessary feed motion to the block H and bolt L, by means of the laterally reciprocating bar G, actuated by the eccentric grooves, n', in the wheels (f) the bar G, vibrating the block H, through the medium of the bar, I, the block H being provided with pawls (n') which catch into the racks (p) in the frame A, and the whole arranged as described.

I also claim the saws, N, N, placed in the frame of sash M, which is secured at the back of the gate B, and operated from the bar G, as described, for the purposs specified.

I introclaim the bar, G, when arranged as shown, so

specined.

I further claim the bar, G, when arranged as shown, so as to be driven or operated from the gate B, whereby the several parts of the machine are all made to work automatically as described.

[In this shingle machine saws are fitted in a frame attached to the gate of the riving knife, and they are operated automatically to cut a kerfin the but; of each shingle so as to prevent it from checking as it is riven from the bolt. The knife which rives the shingles is so connected with the bolt feed motion that the latter operates automatically by the reciprocating knife gate.]

RE.ISSUE.

DRYING AND PRESSING PAPER—John North, of Middletown, Ct. Patented April 14.1857: I claim, first, the encasing of the cylinders in part, and attaching of the cylinders in part, and attaching of trushes inside of said cases, and the application of save dust, or other proper substance for the purpose of cleaning the outer surface of the pressing cylinders as specified.

Second, I claim combining two or more hollow steam or heated chests at proper distances apart, so as to admit of the sheets of paper to pres between said chest free and unobstructed by means of endless belts, or their equivalents, for the purpose specified.

Third, I claim encasing the outer surface of the heated chest as combined by non-conducting substances for the purpose of retaining the heat as specified.

Fourth, I claim, in combination with the pressing cylinders as herein described, the drying apparatus consisting of heated chests, between which the sheets of paper are passed on tapes or their equivalents, without touching or dragging thereon as specified. RE-189UE.

COOKING STOVES—Jacob Beesley and E. J. Delaney, (assignors to Cresson, Stuart and Peterson,) of Philadelphia, Pa. DESIGNS STOVES-Russel Wheeler and Stephen A. Bailey, of Utica, N.Y.

CHURNS, EGG BEATERS, &c.-J. S. Gallaher, Jr., of

Pennsylvania Mechanics.

The mechanics of Lancaster, Pa., have lately given an entertainment to old Martin Shreiner, (ninety years of age,) of that place a much respected mechanic and fire engine builder. J. F. Reigart, Esq., made an eloquent speech on the occasion. Lancaster has produced quite a number of ingenious and skillful mechanics. In 1776 the first American auger was made in that place by William Henry; Abraham Witmer, of that place, built the first large stone bridge in the United States in 1790, and it yet stands a monument of good masonry.

Railroad Farms.

MESSES. EDITORS—Returning recently from Washington to Baltimore, I took my seat in the last car. It was a warm afternoon, and there were five cars between the one I was in and the tender. In a half hour after starting the dust began to fill the car, and it finally became so thick that it was with difficulty I could recognize passengers across it; it became so oppressive that I was obliged to leave, and go forward into the next car; in it the dust was not so thick, in the one before it there was still less, and in the car second from the tender there was not enough to make it unpleasant. But in getting rid of the dust I was obliged to increase the risk of damage. in case of accident, by getting nearer to the locomotive. This state of things led me to reflect over the matter for a remedy; and I wish to propose to the railroad companies through the country the following plan:-I believe the width of the roadway belong-

ing to railroad companies generally is sixty feet, consequently, every 726 feet in length of road gives an acre of ground, less the width of the rails, which is immaterial; or we will say that every mile of roadway contains, say seven acres of land; or, in other words, the 25,000 miles of railroad in the United States contain within their roadway 175,000 acres of land, making 3,571 farms of 49 acres each. Now suppose our railroad companies should put up houses at every 7 miles along the line of the road, and employ a farmer for each, whose duty it shall be to put this soil into proper order, and sow it down in timothy. The extremes of each farm would be but 3 1-2 miles from the dwelling, it being placed in the middle, so that it would not be too long a distance for him to walk to take care of it. When he was not employed in farming he could be employed in the duties of leveling, or repairing the roadway, or anything else the company might have for him to do. In many places railroads have a running stream along the roadway, and by managing this stream so as to afford irrigation to the whole roadway, a crop of at least 2 1-2 tuns of hay ought to be raised per acre. The sloping sides of embankments and cuts should be sown with orchard grass, which would not require mowing, and the tillable parts with timothy. Supposing that three-fourths of the roadway only should be tillable, and that it should yield two tuns of hay only per acre, we have as the product 262,500 tuns of hay, worth at least \$10 per tun, or the handsome sum of \$2,625,000 as the annual agricultural produce of the now useless, idle roadways. A competent person as a farmer could be employed at say, \$300 per year, and the hay crop raised by him would bring \$720; thus, besides the value of his services along the line of the road, the companies would receive a revenue of \$420 for each farm, less the cost of seed and manure. The facilities of taking manure to the sterile portions of the road, and of transporting the hay to market would not be felt in the daily transactions of road transportation, as advantage could be taken of light trains to carry it. The most important advantage, however, is yet to be mentioned. The roadway being covered with grass, all except the rails, there would be no dust to suffocate passengers, the rails would wear longer, and also the wheels and axles, and last, but not least, persons would not be obliged, whilst traveling, to go from a comparatively safe to an unsafe position, in order to breathe.

Having thus sketched the outlines which I wish to bring, through the medium of your and know from experience what I have stated wide-spread journal, up to the view of railroad companies generally, let us see which Board of Directors shall be the first to act, if not for their own, at least for the good of the traveling public. JAMES H. STIMPSON.

Baltimore, May, 1857.

[The views of our correspondent deserve attention, not so much as they relate to the profits pointed out as derivable from the hay that may be raised on the farms, as the specific means described for preventing dust on railroads. We have heard of some railroads having been laid with sods to prevent dust, but have not been informed with what results. Persons appointed to take care of the farms could also act the part of guards, and would statements from others respecting the super the largest Jersey pearl yet discovered.

be very useful in many ways for the protection of the track from the intrusion of animals, &c. The presence of grass on the sloping sides would also do much to preserve the earth from being washed down by the action of rains-an evil very severely felt, especially in such loose alluvial soils as that referred to between Baltimore and Washington.

Post Office Remittances.

MESSES. EDITORS—I have long felt the want common I presume to almost everybody, of some easy method of making remittances for newspapers in different parts of the country, and I think the want might very easily be supplied through the Post Office in this way: Let the Postmaster General issue to the various Postmasters check-books suitable for the purpose and each Postmaster be authorized to draw upon any Postmaster in the United States for the purpose intended to be accomplished, making it payable to the publishers of the paper which is to be obtained. The amount which would thus be paid to any one Postmaster would be too small to merit any apprehension of loss from embezzlement, and besides, one office would always be a check upon the other.

Don't you think the plan a good one, and quite capable of being carried out? If so, I know of no paper so likely to cause attention to be directed to it as yours.

JAS. P. McKINNEY.

Austin, Texas, May, 1857.

The plan which our correspondent suggests for remitting drafts for small sums through the Post Office could be carried out without any difficulty, but it would require an amendment of our Post Office law for the purpose. The Money Order system, which is carried out so efficiently in Great Britain, and with such manifest advantages to all classes, besides yielding to the Post Office department an immense income, has been frequently brought under the notice of our Government. Whenever our people squeeze up their Representatives in Congress to make a law for carrying out such a useful reform in our Post Office system, it will be done. This affords us a favorable opportunity of recommending the attention of our correspondent and all concerned to the articles on this subject, pages 229 and 234 of this volume.

Maple Sugar Regions.

MESSES. EDITORS—I observed a paragraph in the Scientific American of May 23d, on the subject of maple sugar, in which you allude to having received a keg of superior quality from John Oliphant, Esq., of Cumberland co., Md., and remark that you were not aware it could be produced "so far south." I have seen the article (of good quality) manufactured in Alabama; it is quite common in the Southern States for the negroes to make it for their own use. I am satisfied it can be made in any State in the Union where the maple grows, the only difference being in the season or time when the sap begins to flow, which is during the months of January and February in the Southern States, and as early as December. Cold cloudy weather checks the flow, and if the temperature falls to 32° it ceases entirely, but resumes it as soon as the weather is warm enough to thaw. The season of white frosts and warm, clear sunshine is the proper time for making maple sugar. The sap will flow until the leaves begin to put out; but the syrup will not crystalize from sap procured late in the season, although it will make good molasses. I have assisted when a boy in the sugar camp,

Violins.

MESSES. EDITORS-Why is it that violins cannot be made now that will sound as well as the Cremonians? Was there any secret art used in their construction which is not known now? Would not a violin made of the same kind of timber as the Cremona, and all its parts constructed exactly similar (which, I suppose, could be done by a skillful workman) not sound like the Cremona?

Avon, N. Y., May, 1857.

[We cannot answer a single question of our correspondent. We have heard the same

riority of the Cremona violins, and the opinion is common that no such instruments can now be made. This, however, may be wrong. Perhaps there are better violins made at the present day than were ever made at Cremona, in Italy, in the last century, from which circumstance they have derived their name. Some of our correspondents may be able to give us positive information on this musical subject.

A Great Discovery-The Philosopher's Stone.

Those which men in the "olden time" considered to be beautiful dreams have become realities in our day. Diamonds have been imitated, but with less perfection than pearls, therefore the natural ones are still without rivals. The German chemist Woehler, of Gottingen, however, has succeeded in giving to the world a gem which compares most favorably with the natural diamond. This is -" Bor," the elementary substance of boric acid. Heretofore no chemical means had been found capable of reducing it to its natural state. This new substance—Bor—is equal to the diamond in resisting chemical agents, and is even harder. Mr. Woehler anticipates that means will yet be found to make it colorless, its prevailing tints being reddish and yellow. In connection with M. Deville, Woehler made the discovery of reducing aluminum from its oxyd to a metal; this new discovery in reducing boric acid and extracting Bor, increases his celebrity.

L. R. BREISACH.

Triplicity of the Year 1857.

The following are some curiosities of the figure 3, in relation to the figures of the present year :-

First, add all the figures and divide the sum obtained by the last in the year—1 + 8 + 5 + 7=21+7=3. Second, add the second and fourth figures, and divide the sum by the third-8+7=15+5=3. Third, add the second and fourth, then subtract therefrom the sums of the first and third, (8+7) -(1+5), and the quotient will be 9—the second power of 3. Fourth, multiply the first and second figures, 1×8, and subtract this sum from 5×7=35—the quotient is 27, the third power of 3.

For duplicity we must look forward to the year 1861, which by the mere addition of all its figures, gives the fourth power of 2 (16). L. R. BREISACH.

Volcanoes.

Volcanoes sometimes transact business on quite a large scale. Mount Etna, we think it was, at one eruption vomited lava to an amount fifteen times greater than the whole mountain. The discovery of volcanoes in the central portion of China goes far to disprove that a communication with the sea is essential to their formation.

Chair for the President.

The San Francisco Herald notices the arrival in that city of Seth Kinman, a hunter, from the northern part of Humboldt county, en route to Washington, with a great curiosity in the shape of a chair made entirely of elk antlers, and designed as a present to Mr. Buchanan. The chair is very ingeniously and handsomely put together.

The New York Free Exhibition.

We have tried several times to visit the Hall of Patents" in this city, alluded to some time ago as an experimental concern, intending to exhibit inventions at an annual rent for the space occupied, but can never find it open. It was to have been opened on the 4th of May. What is the matter?

Experiments have proved the interesting fact that fine silver exposed to the air in a state of fusion absorbs oxygen gas, and gives it out again in the act of consolidation. The quantity of oxygen thus absorbed may amount to twenty-two times the volume of the silver.

The Elizabethtown (N. J.) Tribune states that a pearl has been found by W. Cree, of that place, which is as large as a walnut, and of an oval form. It is perfectly white, and