Scientific American.



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

R. R. CAR BRAKES.—Vincent Earness of Washington D. C.: I claim attaching the frame or brake, C, to the truck. B, by the parallel levers, a, so as to farm a self acting reversible trake, operating as set forth.

HOT BLAST FURNACE—La Fayette Blair, of Paines-villo, O. I claim the tunnels, b, diaphragms, h i j k l, and m, division plate, d, and essing, e, arranged and com-bined as described and for the purpose specified.

VALVES FOR LOCK GATES—Wm. Butler, of Little Falls, N. Y. I claim the comi ination of the flange valve, A, and slidevalve, B, when said flange valve, A, is hinged to the lower end of the valve, B, and made to operate in the manner and for the purposes described.

Manner and nor the purposes described.

One Washer—Wm. L. Carter, of Marietta, Pa.: I am aware that a cylindrical vessel with a forced current of water against the material passing through it, has been used used for washing ores. This I do not claim.

But I claim a conical vessel provided with shovels and pins or projections whose shaft is horizontal, and lower side inclined, so that water introduced at one end shall have a natural flow to the other end, and meet the oreas they pass in an opposite direction, to wash them, substantially in the manner and for the purpose set forth.

Lynth Runner Burner, or Example, J. H. Cheev.

tially in the manner and for the purpose set forth.

INDIA RUBBER BELTING OR BANDING—J.H. Cheever, of Boston, Mass.: I do not claim the mode of preparing the rubber, or of compounding or vulcanizing the fabric, for the machinery, and therefore, these are alwell known to the manufacturer of rubber goods.

Nor do I claim the compounding of filters of cotton or flax with india rubber, at this has been done for the purpose of packing steam joints, and for other similar purposes; but it has never been done in the manner described; nor has it ever before been used to constitute the fabric known in commerce, by belting or banding.

Nor do I claim by this patent the new process of making fibrous rubber goods its used a form that the fibers are arranged crossing each other in the manner described, for enabli g the fabric to resist tension and all directions, and giving it flexibility without elasticity, as I intend to make these the subject of a separate application for Letters Patent.

But I claim the improvement in the manufacture of

But I claim the improvement in the manufacture of rubber lelting or banding, which consists in compounding fibers of cotton or flax withindia rubber, substantial ly in the manner and by the processes described.

BENOR CLAMP—C. W. Clapp of Wappingers Falls, N Y. 1 claim the hook, D. attached to the shank, E. which is formed of two parts, a b. having beveled ends and connected as shown, the shank being fitted in the groove, B in the each, and used in connection with the stationary hook, C, substantially as shown for the purpose specified

WASHING MACHINES—E. B. Clement and S. G. Willie of Barnet, Vt.: We claim the saw teeth shaped rubbers, D D, made and operating substantially as described.

HEATING BUILDINGS BY STEAM—Charles Darenport, of Watertown, Mass. I claim so connective the floatwith the damners of both the draft and smoke flues by means of the chains. Ma d L, or their equivalents, that the pressure of the steam within the boiler may le graduated to be temperature of the atmost hero, and the degree f heat required within the tuilding, as set forth. Second, so come ting the float with actuates the damner f the draft and smoke flues with the cock. X, which admits water from the supply eithern to the boiler, by mean of the lever or its equivalent, that while the float is left free to rice to any required distance, it will open the cycle whenever the water falls below its level, as described.

Speurs Macana.

Sewing Machines—H. R. David, of New York City I ctaim the method described and shown of leading the thread to avoid wear or derangement thereto, by combining with the slide. D. in the patent of David M. Smith, of le hof April. 1:50, and on which this is an improvement, the needle, F. constructed with the two eyes and the groove to act in the manner and for the purposes specified.

PREP'RING HEMP AND FLAX—Nancy Davy, executrix of Edward Davy, of Credition, Eng.: I claim the reciprocating plate or plates, f. in combination with hold is or retaining rollers, c. fix effecting the separation of the fibers of flax and hemp, substantially as described and combined therewith.

I also claim the combination of the hackle bar, operated as described, with the rollers and reciprocating breakers or plates.

PREVENTING HORSES IN CARRIAGES FROM FALLING—R. D. Dwyer of Richmond, Va.: I claim the application of a suitable projecting frame, attached to the most convenient part of the carriage, or to the carriage or frontaxle, projecting over and between the horse or horse; sufficiently far and at a suitable distance above, so that straps, chains, or other suitable fastenings can be attached to the harress round the body of the horse and to the collar, as shown, for the purpose described.

PARALLEL RULER—R. Eickemeyer, of Yonkers, N. Y. I claim providing the ruler with a movable footpiece. c. and suitable stops, to operate substantially as and for the purpose specified.

TAILLOW FOR MAKING CANDLES—Francisco Garcin, of Philadelphia. Pa.: I claim the method described, of bleaching and purifying fator tallow for the purpose of making cande, the same consisting in the use of reduced n tric and sulphuric acids, a lechol, creta, gallica, slacked lime, camphor, borax, egg shells, and oil of lemon, in the proportions and order set forth.

Spark Conductors for Locomotive Trains—P. C. Guion, of Cincinnati, O.: I do not confine myself to any exact form or dimensions: I do not claim the smoke pipe or funnel, or frame, or the yoke or the springs—neither of them by themselves.

But I claim the yoke, Y, with the springs, S S, and the frame, F, as arranged so that the pipe shall have free space and liberty to play by the yielding to the springs to accommodate the recking motion of the errs, or the up-and down motion without craim ing or injuring the pipe, and also to give room for the back-and-forward metion allowed by the car coupling, for the purpose and in the manner set forth.

TANNING—Baselom Gould, of Whitewater, Wis.: I do not claim the use of catechu in the process of tanning, for its use has long been known. I do not claim to have discovered any new property of catechu or niter, or of alum, in relation to their empl yment in tanning operations.

But I claim that in order to insure the proper exercise of the properties of these substances in tanning, they must be used in a certain manner differing from the mode in which they have hitherto been known to be used. I claim that in order to use these substances flectively for tanning they must be employed substantially according to the processes set forth. And I claim that when these three substances, or their chemical equivalents have been employed together, they have and mustfail, as they are strongly of the tanning of hides and skins for the me king of leather of the two solutions described, used. and applied, each separately or at different times and in the order following, viz.: first, by using a combined solution of catechu or any other material its equivalent, as containing the tannic properties, and alum, substantially in the mode of application described, or any mode equivalent thereto.

Straming Muller Sawe—Theodore Sharp. of North

STRAINING MULLEY SAWS—Theodore Sharp, of North Greenbush, N. Y. I. claim training the saw by attach-ings its ends to a pivoted clastic bar, Er, substantially as shown and described.

CARRIAGE TOPS—Henry Hayes, of Quincy Ill.: I claim the plate or circle, c, having the slat iron of the front bow projecting from it, working on a pinion on the standard, h, in connection with a spring latch or pawl, fitting into notches in the plate by means of which the top of the carriage is sustained in an elevated or half elevated position substantially as described.

substantially as described.

IRONING HATS—S. A. Kinsman and Samuel Field, of Barre, Mass. We do not claim any peculiar form of hat holder, nor any spring movement to a side flat, nor a fan to regulate the downward movement of the hat block, nor any arrangement of toggles to operate the crown flat, forall of these we are aware are embraced in a patent granted to Dexter Dennis, July 4, 1864.

We claim arranging the cam, 14, so that when operated by the gear. Is and 17, substantially as described, it will control the vertical movement of the hat block through levers, 21 and N, in combination with the lever, Larranged substantially as described, to control the lateral movement of the hat block, and thus secure the adequate pressure on all parts of the hat at one time.

HARVESTER CUTTER—I. S. Love, of Beloit, Wis.: I do not claim the cutting blades in their usual form: nor do I claim the other parts, as they have hitherto been used. Neither do I claim the tooth, X. which may be made either in one piece or more, when used without the tooth, Y. But I claim the use of the clearing tooth, Y, in concetion with the cutting tooth, X, as set forth, provided the cutters be distinct, and the spaces between them continue back to the rear of the cutter bar.

I do not limit myself to the exact form or proportions of either, for it is evident that either of them might be slightly varied, without materially altering the effect.

SPIRIT BLOW PIPE—II. N. Macomber, of Lynn, Mass I claim combining with the vaper jet of a spirit blow pipe, an air jet, f, and a mouth tube, g, so applied to said vapor jet, that air may be blownfrom the lungs of a person directly into the luffamed current of said vapor jet in order tocontrol, elongate or reduce said current and increase its heating powers, as specified.

I also claim arranging the air jet concentrically within the vapor jet, in order that the effluent current of air may pass into a hollow tube or stream of vapor, and flame.

I also claim combining with each main jet tube a lighting vapor jet tube arranged so as to operate therewith, as specified.

Mowing Machines. J. J. Mann, of Westville, Ind.: I claim the constructions of the reel frame, 1 J. K., the same being braced by the rod. L, and the suspension of the reel. F, at the outer extremity of the shaft, G, by the pendent, L.

BENDING WOOD—J. C. Morris, of Cincinnati, Ohio, I claim the clamps, 6,6, to prevent end expansion and the levers, 7.7, working on fixed fulcrums when in operation, all substantially as and for the purpose set forth.

Revolving Fire Arms—Frederick Newbury, of Albany, N. Y.: I claim the following apparatus, substantially as set forth, viz., the combination of the wheel gearing and pawl, with the trigger, by which means the block, C, is revolved; the wheel gearing itself is not claimed. The priming cap magazine, in combidation with the trigger, to permit the capping of the cone bythe trigger. The spring guard plate to prevent the firefroin the upper chamber extending to the lower.

The combination of the picker attached to the hammer with the apparatus operated by the thumb in the act of cocking the hammer, substantially as set forth.

CARRIAGE HUNS—Henry Nycum, of Uniontown, Pa. .

I do not claim a hub, the central portion of which is provided with mortises or recesses for the reception of the spokes, as I deem such a hub impracticable efrom its very nature, as it limits the number of spokes in the hub, or wheel to less than are actually necessary.

Nordo I claim a hub composed of concentric rings of alternate iron and rubber with the spokes abutting against the outer ring, which wouldsoenlarge the hub as to make it useless for my purpose.

But I claim a hub composed of a back and front section, A Is, and having at thin metallic tube or ring, E, independent of each centrally placed between them against which the timer ends of the spokes abut when said sections are so made that, in removing the back one, A, the pipe or box of the hub shall also be removed or removable with it to facilitate the properly introducing of a new spoke, substantially as described.

Steam Bollers—Leonard Phlerer of Tamaqua, Pa.

STEAM BOILERS—Leonard Phleger, of Tamaqua, Pa.:
—I claim, first, the arrangement of the arched water space, a b c, so that the boiler may be suspended near to the track, in the manner and for the purposes substantially as described.

Second, the arrangement of the arched water space, a b c, the water space, N M, and the water tube, L L', in combination, so that the dame and heat will be never berated in the manner and for the purpose substantially as described.

HARVESTERS—B. T. Rooney, of Philadelphia Pa.: I do not claim, exclusively, double cutters operating simultaneously, nor the use of vibrating cutters nor belts for carrying oil the grain to one side of the machine.

Butl claim the gear frame with its lugs, u u, incombination with the movableor cutterframe, its tar. W. lugs, tt, and beveled projections, V. V. the whole being arranged and constructed, substantially in the manner, and for the purposes set forth.

STRAW CUTTERS—E. P. Russell, of Manlius, N.Y: claim the wheel, C, with the rim and cams, O', on the in side of the rim, in combination with friction rollers, h, for raising the lox, with the knife, h, attached, and causing it to pass the edge of the stationary knife, which is placed in such a position as to give them the shear cut, as seforth.

forth.

Second. I claim setting the box at any angle of about 45 degrees, and hung on a hinge or pivot with a joint or hinge, d', in the bottom, for feeding the straw to the knives, and or allowing the knife, b, to cut, as set forth.

LIME KILNS—Job Sands, of Sand's Mills, N.T.: I claim having the fire chamber, B'. of the kiln so constructed that the bottom will be but a short distance below the door, C. no grate bars being employed, and having an apertume, a, made through the door, so that the air that feeds the fire will act horizontally upon it and nearly in line with the opening, a', for the purpose specified.

PUDDLING IRON—Richard Savary, of Steubenville, O. I claim the arrangement of the cupola, and puddling furnaces, constructed and operating as set forth.

naces, constructed and operating as set forth.

Heating or Cocking by Gas—W. F. Shaw, of Boston. Mass.: I am aware that perforated cones have been used for admitting atmospheric air to ordinary fuel for promoting combustion; this I do not claim.

But I claim the application of a cone or dome formed of wire gauze or pierced metal to an ordinary wire gauze gas burner, for burning mixed gases and air, in combination with an outer cylinder of wire gauze, or pierced metal, for the supply of atmospheric air, divided huo jets, substantially as described.

Box for Axi.rs—A. E. Smith, of Bronxville, N. Y.: I am aware that the flues have been cast with grooves in them, and that one of these grooves has been made to connect by a tube along the outside of the box, with the face of the hub, so that oil might there by be poured in, so as to avoid the necessity of taking the wheel off. These groove carnot be said to act as reservoirs strictly, and they also have taken away too much of the hearing surface, so that have taken away too much of the bearing surface, so that

have taken away too mutu of the contains, and the axie wears into the box along the sides of the groove. I do not claim making slots in the box in the line of the axie or reservoirs communicating with the axie by holes or funnel-shaped apertures,

But I claim the combination of two or more longitudinal narrow slots cut in the direction parallel to the axis of the box with enlarged longitudinal cavities, substantially as described and for the purpose specified.

MORTISING AND BORING MACHINE—G. N. Stearns, Syracuso, N. Y.: I do not claim a movement of the c

Syracuso, N. Y.: I do not claim a movement of the car riage exclusively of the means by which it is done. I claim, first, an adjustable cam, in combination with the levers, F K, T. spring, M, pawl, L, pinions, N P, and rack, R. as set forth.

Second, I claim the use of its spring or its equivalent to move the clutch which gives the return motion to the auger,

Soles of Boots and Shors—William Wells and Mellen Bray, of Turner, Me.: We claim operating the knife, R, which is attached to the bar, S, by means of the lever, n rod, m, with plate, i, attached, on which plate the bar, S, rests the ledge, T, on the heel of the stock, F, substantially as shown, for the purpose specified.

I further claim the knives, Q, R, r, when attached to or connected with an elastic platform, I, substantially as shown, for the purpose specified.

Making Extracts—Abraham Steers, of Medina, N. Y.: I claim the described displacing apparatus in connection with the application thereto of heating and cooling agents, substantially as set forth, viz., the said apparatus being composed of the percolator, K., and the receiver, M. separated from each other by means of a perforated diaphragm, or its equivalent, the said percolator having its upper end closed by a metallic cover, supplied with an outwardly opening valve at the same time that the top of said percolator is connected directly with the said evaporating receiver by means of a pipe supplied with a valve or a stop cock, by which arrangement the contents of said percolator can be operated upon, first, by the amgenerated in the evaporating receiver, and then by the percolation of the menstruum after it has been evaporated and condensed again, substantially as set forth.

orated and condensed again, substantially as set forth.

"REDUCING THE FRICTION OF SLIDE VALVES OF STEAM ENGINES—R. L. Stevens, of Hoboken, N. J.: I am aware that devices have been contrived with a view to effect the reduction of the friction of the slide valves of steam engines by attempting to counteract or balance the pressure of the steam on the valve. But I am not aware that any plan or combination, similar to that which I have described has been used or described before.

I claim the box or balance block, B, constructed substantially as described, in combination with an ordinary slide valve altered as described, said balance block having around the edges of its upper face ledges, L. L. which project upward, and are made to fit, around the whole upper face, into a recess, such as described, in the follower, D, and formed by double ledges projecting down from D, and enclosing L, which recess has an india rubber packing inits bottom, against which the said ledges, L, are made to pack steam tight, together with another india rubber joint at the bottom of another similar recess formed by the ledges, L, and a part of the bonnet, C, into which latter recess one of the ledges of the follower, D, fits tight in the same manner as the ledges, L, fit in the recess.

REVOLVING FIRE A RMS—William Mt. Storm, of New York City: First, claim extending the casque forward as tar as the face of the cylinder, and surrounding it, to form a receptacle for it while loading, in combination with a hinged apren piece, fig. 5.

Second, I claim, in combination with the so arranged barrel and casque, and for locking them together, the solid self-acting locking spring, (as distinguishedfrom a locking lever, having by necessity a hinge to wear loose and c.) said spring being arranged to resist the discharge by its direct tensible strength, as shown.

Third, I claim, in combination with the casque or cylin der receptacle the safety screw, Q, projecting into the recess between the shoulders, r r (or as equivalent, the screw on the cylinder and the shoulders on the casque,) to prevent the cylinder from getting dropped, while loading or capping in action, as explained.

Fourth I claim the central revolving shaft with the button head, i, forward of the sleeve, G, and both projecting within the central revolving shaft with the line of its rear and the fire of the cylinder beyond the ling with a revolving wheel located within the six ck enclosed from the fire and smoke, all substantially as explained and shown.

Fifth, I claim, in combination with the dog, having an

andshown.

Fifth, I claim, in combination with the dog, having an inclined plane or projection at its forward end to meet the purpose of such combination, an adjustable tripping screw, hereby despite of wear, and c, the detachment of the dog from the rear may beflected sooner or laterin accordance with the needed distance of revolution of the many chambered cylinder.

Sixth, I claim extending the rear of said dog downward from where it connects to the heel of the hammer and connecting the pawl directly thereto, by which means the pull on the dog by the trigger, directly operates the pawl to push around the cylinder.

Seventh, I claim extending the pawl beyond where it is connected to the downward extension or heel of the dog and connecting the main spring to the part so extended, by which means the pull of the dog on the pawl distends the main spring while the latter being distended presses the point of the pawl more firmly into the revolving holes or indentations in the face of the revolving wheel, preventing any slip while the revolving cylinder in all points, rendering the use of a pawl spring unnecesary.

Eighth, I claim pivoting the usually fixed end of the

wheel, preventing any sing white the revolving cynnecesary.

Eighth, I claim pivoting the usually fixed end of the
main spring, in the manner explained, so that whilesta
tionary it shall not te fixed, but free to compensate for its
own vibration, and that of the rear of the pawl, thus rendering the use of the usual vibrating or connecting link
between the main spring and the rest of the lock unnecessary despite of the immediate connection of the main
spring to said pawl.

Ninth, I claim the locking notches in the revolving
wheel, c, or its equivalent, in combination with the crest
out the deg for the purpose of securing the stoppage and
locking fast of the cylinder at the proper position for dis
charge, a set forth.

Tenth, I claim in combination with the forward shoulder or detent on the head or rear of the trigger, the screw
projection or detention the rear of the head or rear of said
trigger to the end, that after said forward detent or hook
ceases to act by the dog being thrown off to lock the revolving wheel. C, and thereby the cylinder in place, the
hammer shall not im mediately fall but be retained on
oock to give opportunity for deliberate aim, as explained,
said rear projection or detent catching at this point on
the downward prolongation of the heal of the hammer
for this purpose, the whole being arranged and acting in
conjunction, as explained.

Cutting Irregular Forms—H. D. Stover and Jas.

CUTTING IRREGULAR FORMS—II. D. Stover and Jas. W. Bicknell, of Boston, Mass.: We claim combining the guide, f, with the bearings, e, substantially as and for the purpose set forth, and also combining the cutter head with this guide, in such a manner that they shall move up and down together, substantially as specified.

We also claim the combination of the cutter head, arbor, and pivoted bearing, e, so as to allow the cutting angle of the knives to be varied in relation to the table, substantially as set forth, and also combising therewith the mechanism substantially as described for varying that angle gradually in the cutting process.

HARVESTER CUTTERS—Pliny Thayer, of Lansingburg, N. Y. I claim, in combination with the plates, e, lying loosely on the fingers or guards, but kept from moving by the projections, ff, on the plates and the open counter sinks on the guards, the cutters, d, which are vibrated past those, e, and held to them by the guides and springs, L. M, substantially as described.

PLANE STOCK—John B. Thomas, of Cincinnati, O.: claim the glass face, 3, combined with the case of ferrul, 1, or its equivalent, all substantially as and for the purposes set forth.

WRENCH—Erastus Tracy, of Troy, N. Y.: I am aware an auxiliary jaw or griper applied to or inserted within either the movable or stationary jaw of a hand or screw wrench has been used. This I do not claim, it being too expensive in construction and inefficient in its operation to come into general use.

But I claim making the movable jaw in two sections pivoted together, one of which sections embraces the shank and the other forms the clutch by which the whole jaw is held to the shank, and both sections made united, and operating in the manner and for the purposes set forth.

FOUNTAIN PEN—A. F. & C. M. H. Warren, of Brooklyn, N. Y.: We do not claim the plate, G, separately, for
they have been previously used, although applied to the
pin in a way different to that shown. Neither do we claim
a piston for filling the fountain with ink, for they have
been also used for the same purpose.

But we claim, first, having the piston, D, and rod C. arranged as shown, or in an equivalent way, so that the pis
ton may be detached from the rod when the tube or fountain is filled with ink, for the purpose specified.

Second, we claim attaching the pen, E, directly to the
lower end of the tube, A, by the band, F, and conducting
the ink from the tube, A, to the back or convex side of
the pen by the wire, g, which is attached to the pen and
passes through the apertures, e, d, as described.

Third, we claim the plate, G, attached to the back or
convex side of the pen, R, in combination with the wire,
g, arranged as described, for the purpose of ensuring a
regular and even supply of ink to the pen.

FAUCET—Moses Woodbury, of Boston, Mass.: I claim the combination of the handle, constructed as specified, with the stem and the spring, when the latter is placed behind the valve, substantially as set forth.

UMBERLIA RIBS—Charles C. Reed, (assignor to him self, Wm. S. Reimert, and Jacob Schnell,) of Philadelphia, Pa.; I claim the manufacture of umbrella ribs by grooving a cheap material such as hickory, bamboo, or rattan, and securing within the groove a strip of whalebone, substantially in the manner set forth.

DOVETAILING MACHINE—Edwin Wight, of Philadel-phia, Pa.: I do not claim the exclusive use of revolving and traversing cutters, as they are employed in a variety aversing cutters, as they are employed in a variety hines. I claim the cutting of dovetails of exactly similar

size and form on the edges of a number of boards at one operation, by placing the said boards one upon the other, arranging them in the manner set forth, or any other equivalent to the same, and submitting them to the action of revolving and traversing cutters.

of revolving and traversing cutters.

Grain and Grass Harvesters—Abner Whiteley of Springfield, O.: I claim, first, the naarow divider, as described, and for the purposes set forth.

Second, I claim making the divider with that portion forming the under or upper side of the slot removed as the case may be, as set forth.

Third, I claim terminating the shoe, B, at or near the point of the blade which cuts against it, to prevent it carrying grass.

Fourth, I claim extending of the tops of the guards over the edges of the lower portions as described, for the purpose set forth.

the edges of the lower portions as described, for the purpose set forth.

Fifth, I claim the double cap, 6 6, as described, i.e., the caps of two guards in one piece, having one shank for attaching it to the finger-piece. But I do not claim one cap having two shanks for attachned the shanks of the guard caps to the finger-piece as described, for the purpose of preventing straws or blades being carried beyond them to cause clogging.

Seventh, I claim terminating the points of the finger or fingers at or near the points of the blades, for the purposes set forth.

Eighth, I claim making one side and also one edge of the cutter bar, or either of them, a rasp or rough surface as described and as set forth.

LEATHER SPLITTING MACHINES—Blisha Pratt, (assignor to E. Pratt and H. P. Upton, assignors to E. Pratt and Thos. P. Pingree) of Salem, Mass.: 1 claim so hanging and arranging the lower roll as described, by means of the levers, I, connecting rods, I, and plate, d, or their equivalents, that it may be depressed when required, for the purpose of relieving and adjusting the hide, as set forth.

SECURING THILLS TO AXLES—Matthias Soverel, of Orange, N. J.: I claim the combination of the spiral spring, P, and the catch or nut, E E, and the eye of the bolt, H, fig. 2, and the spiral chamber and slots, c, fig. 1, substantially as described.

BOOT AND SHOE SOLES—LOTERD Stratten, of Feltonville, Mass, assign to himself and Luther Hill, of Stoneham, Mass. I claim the described improvement in the manufacture of shoe soles, viz., striking them up in nests between formers and counter formers, B is F, substantially in the manuer set forth.

Sewing Machines—Wm. C, Watson, (assignor to Ira W. Gregory,) of New York City: Firstly, I claim the tongue or spring, r. in combination with the needle for insuring the formation of loops on one side only, as described.

scribed.

Secondly, I claim the grapper for seizing the thread and holding it until the needle has entered the cloth, thus securing the last sitte hagainst siacking up, as described, the whole being constructed and operating substantially as set forth.

BOXING CARRIAGE WHEELS—Chas. Schmidt, of Union, Me.: 1 claim the method of boxing carriage wheels as before substantially described.

RE-ISSUES.

GRAIN AND GRASS HARVESTERS—Abner Whiteley, of Springfield, O.: I claim, first, changing the angle of the fingers and cutters of reaping and mowing neachines while the machine is an motion and the finger-jiece resting on the ground as described, and for the purposes set forth. Second, I do not here claim oscillating the finger-jiece about an axis within itself irrespective of the relations between the main frame and the master wheel shaft. But I claim so constructing the machine tax described or otherwise, the result being substantially the same) that the driver, while the team is in motion, and it has been so the master wheel shaft being rigidity connected with the main frame to change the angle of the fingers and cutters without moving the finger-piece from the ground.

main frame to change the angle of the fingers and cutters without moving the finger-piece from the ground.

Selitting Match Selints—Benonalloward, of New York City, assignee of Lewis Smith, late of Brandon, Vt. First, I claim, the use of the arrangement of the four cutters, arranged and operating substantially as set forth, in combination with the cutter frame or box for the purposes described, and also the use of the cutters and cutter frame, arranged and operating as described, in combination with an adjustable cap or clearer plate, for the purpose of holding the thocks of wood while under the action of the cutters, substantially as described.

Second, I also claim the jointed levers or their equivalent with or without springs at their tacks, for the purposes set forth, and their combination with their cutters and crank motion or their equivalent device for working or operating a crimperfor crimping or matting the surface of blocks of wood.

Third, I also claim the use of the crimping or compressing levers or their equivalents, in combination with the bed board, M. for crimping and matting the lower surface of the blocks, substantially as described.

Fourth, I also claim the use of the shafts, R, and ratcheffeed wheels or equivalents, for the purpose of feeding the block through the machine, in combination with the adjustable cap or clearer plate and bed board, when used for the purpose of splitting blocks of wood.

Excavating Machines—I I Savage of New York

ADDITIONAL IMPROVEMENT.

EXCAVATING MACHINES—J.J. Savage, of New York City: I claim the adjustable brace, A', or its mechanical equivalent, in combination with the oscillating connecting arms, H II, the combination being substantially in the manner and or the purposes set forth.

I claim the adjusting guide, B', or its mechanical equivalent, constructed and operating substantially in the manner and for the purposes described.

I claim the tipping scoop, X, having a stationary back firmly bolted and braced to the scoop stag, which back forms a rest or shoulder for giving firm support to the scoop in its excavating operation, the scoop being constructed and affixed to the staff, and operating in the manner and for the purposes substantially as specified.

A Strange Accident by Burning on a Railroad

We learn from the Richmond (Va.) Disatch, of the 12th inst., the particulars of a ter rible accident on the Seaboard and Roanoke Railroad, which took place near Margarettsville, N. C. A correspondent of the Dispatch says :-

"The accident occurred about 16 miles south of this, near the station known as Margarettsville. The trestle-work at that place is some thirty feet high, and had long been regarded as very insecure; in fact, the engineer had just "shut off" steam, intending to ross at a slow rate of speed, when the engine left the track, and was followed by the whole train, consisting of an express car, a baggage and mail car, and two passenger cars. Before any of those on the train had time either to reflect or act, it was found that the cars were on fire, and, horrible to relate, no less than four persons were literally roasted in the flames. Every car was also entirely consumed. Even the wood-work on the locomotive and the entire mail and express freight was so thoroughly destroyed that nothing remained but a pile of ashes, with here and there a brass lock, to mark the scene of devastation."