# Scientific American.



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Reported Officially for the Scientific American LIST OF PATENT CLAIMS

Issued from the United States Patent Office FOR THE WEEK ENDING JUNE 15, 1852.

FASTENINGS FOR GARMENTS-By E. B. Belknap. of Spring Garden, Pa.: I claim the combination of the catch-plate with the plates above and below it, as described. I claim the perforated bar for preventing the in-strument from turning, the whole being arranged and acting substantially as set forth.

WHERLS OR GATES FOR OBLIQUE FLOAT PADDLE WHERLS-By J. C Carncross. of Philadelphia. Pa.: I claim the series of radial winged and pivotted gates for preventing the water, acted on by the paddles, being moved laterally as they move through the wa-ter, and opening to deliver the water freely at the proper time, arranged and operating substantially as described. VALVES OR GATES FOR OBLIQUE FLOAT PADDLE HEELS-By J. C Carneross, of Philadelphia, Pa. :

MILL FOR CRUSHING QUARTZ-By J. W. Cochran. of New York City: I claim giving motion to the balls between the two plates or discs, in the manner and for the purpose specified.

PIANOFORTES-By Wm. Compton, of New York City: I claim making the perforated bridge for the upbearing of the strings, a part of the solid arched frame or plate, as described.

GRANULAR FUEL FROM BRUSHWOOD AND TWIGS. -By Reuben Daniels, of Woodstock, Vt. I claim the granular fuel produced from brushwood and twigs by cutting the same into lengths about equal to its average diameter, as described, as a new manu facture.

[Would Mr. Daniels consider any person infringing his patent, who took his axe and cut twigs and brushwood any length he chose, and used them for fuel? We believe this would not be an infringe ment

CAST-IRON CAR WHEELS-By Peter Dorsch, of Schenectady, N. Y.: I claim the double reversed cor-rugations connecting the rim and hub, forming and acting as described, and the combinations of these corrugated parts with the annular cylinder between them and the hub, as described.

MACHINES FOR MAKING CIGARS-By Wm. Daw son, of Huntington, Ct.: I claim the manner descri-bed of making cigars, viz., by combining with the cutters and followers which cut off and feed in the cutters and followers which cut of and read in the requisite quantity of tobacco for each cigar, the roll-ers for rolling up the fillers, and putting on the wrappers, said rollers having the requisite arrange-ment of parts, so as to open to receive the material, and close to form the cigar, and again open to deli-ver the finished article, in the manner substantially as described.

I also claim the making of the roller which feeds a sign chaim the making of the roller which feeds in the wrapper, of less diameter than the rollers which form the filler, so that the filler may move at an increased velocity over that of the wrapper, for the purpose of more evenly spreading out the wrap-per, and winding it more tightly upon said fillers, substantially as described.

POLISSING DAGUERREOTYPE PLATES—By Town send Duryea, of Williamsburgh, N. Y.: I claim the horizontal reciprocating bed, operated in the man-ner described, or in any other equivalent way, in combination with the frame, for the purpose speci-

-By Chas. Fleischel, of New York ALANA LOUGS by ones, research, or the side and but ton, constructed for the purpose of making and break-ing the connection of the bell and hammer with the bolt catch, latch, or fastening of the lock, substan-

I also claim the combination of the lever with the bolt and catch or latch of the lock, by means of which the movement of the catch is prevented, when the bolt is projected, and the catch is drawn by the same key which has drawn the bolt, construc-ted and operated substantially as described.

PREPARING COTTON YARN FOR THE MANUFAC-TURE OF DUCK AND OTHER COARSE FARRICS-By H. N. Gambrill, of Saltimore, Md.: I claim the pro-cess described of preparing yarns for coarse cotton goods, but more particularly for cotton duck, by pussing them through, between moistening rollers, or otherwise wetting them, and then passing them over or around grooved or plain heated steam pipes or rollers, for removing their elasticity, smoothing and condensing them, whilst in a state of proper tension, substantially as described.

ORGANS-By Albert and George Gemunder of Springleid, Mass. We claim the use of a separate air chamber for supplying wind to all the pipes of a single stop, as described, and as opposed to the old me-thou of having a single air chamber supply all pipes of the same note or letter in the different stops.

of the same note or letter in the different stops. And finally, we claim the combination of air cham-bers such as are described, with valves communica-ting with the several pipes, and operated by mecha-nical agencies, such as are shown, substantially as described.

CARRIAGE AXLES-By Kingston Goddard, of Phi-

PREPARATIONS OF ARCHIL-By Leon Jaross New York City: I claim mixing and treating lichen rocellus with a volatile atkali, urize, and clear and fully saturated lime water, in the proportions and after the manner set forth, for the purpose of producing a coloring matter known as archil.

[The lime is all that is new in this; soda lye in better.-ED.]

better.-ED.J JOINTING STAVES-By Edwin Jenney, of Middle-borough, Mass, & David Rood, of Boston, Mass (as-signors to Edwin Jenney, of Middleborough. Mass): We claim, in combination with each carriage or frame, the clamping contrivance or mechanism by which such carriage is held firmly in position, after being moved outwards by a stave, and while such stave is being reduced on its edges, or has the bilge formed on it, such costrivance or mechanism con-sisting of the movable bar, the rocker bar, the lever, connecting rod, and the clamping lever, the whole applied to each carriage and made to act on it, as specified. And in combination with the lever, as applied and

specified. And in combination with the lever, as applied and operated in the manner above set forth, we claim the mechanism by which the fulcrum of the lever is caused to more longitudinally rt towards the cam for the purpose of producing the effect, equivalent to shortening the rear arm of the lever, and lengthen-ing the front arm thereof, whereby the cutter head is made to depart further from the middle of the ma-chine, so as to increase the curve of the bilge, or make it, as it were, with a diminished radius, such mechanism being the stationary slotted plate under-neath the carriage or frame, as arranged and made neath the carriage or frame, as arranged and made to operate essentially as described.

And in combination with the cutter, which produce the bilge curve, we claim the self adapting planes or plane iroas, artanged in front of such cut-ters, and for the purpose of jointing or smoothing the edges of the bilge, as explained.

SADDLES-By Wm S. Kennedy, of Philadelphia Pa : I claim the employment of woven rattan, cane SADDLES-By Wm. S. Konnedy, of Philadelphia, Pa: 1 claim the employment of wover nattan, cane, whalebone or other similar elastic substance, in the construction of the seats of riding saddles, said seats, so constructed, being attached to and combined with the saddle tree, in the manner and for the purpose or forth set forth.

WIRING BLIND RODS-By F. H. Moore, of Itnaca, WINING BLIND RODS-By F. H. Moore. of Ifiaca, Y.: I claim, first, the combining of clenching mecha-nism substantially such as described, with devices for feeding the rod and the wire, piercing the former, and severing, forming, and inserting the latter, whereby I make and firmly attached blind staples in their proper positions, substantially as de cribed. Second, I also claim the pivotted clencher, arran-ged and actuated substantially as described.

HANGING MILL SPINDLES-By Wm. H. Naracon, of Auburn, N Y.: I claim the combination of the bail orbalance rine (of the usual shape) with the cock eye of the spindle, by means of the inverted cock eye of the spindle, by means of the inverted bearing cup, whose shauk presses up through, and is made fast in the centre of the said bail, and whose head is enclosed in the inverted socket, which rise above and is matefast to the top of the spindle, sub stantially as set forth

BEDSTRAD FASTENINGS—By A. S. Newhouse, of Richmood Co., Ga. I claim securing the rail to the post, by means of a pin, key, and plate, in the man-ner substantially as set forth.

MEAT CUTTERS-By Jos Potts, of Yocumtawn, Pa : I claim the mode of attaching the knives de-scribed, by which they can be taken out and replaced expeditious y.

ORE STAMPERS-By Thos. Reaney, of Philadel-phia, Pa: I claim the employment of weights upon the stamper, substantially as described, to keep up a uniformity of weight as the stamper wears, as set forth

HAND SEED PLANTERS--By Gelston Sanford, of Elleuville, N. Y. : I claim the method of conveying seed from the seed box, and depositing it in the fur row or hill, sub-tantially as described, viz.: by harow or hill, substantially as described, viz.: by ha-ving the rods attached in any proper manner to a staff said staff and rods passing vertically through the bottom of the said box, the upper part of the rods having cups attached to them by elastic joints, the cups having spurs projecting from them, which cantor turn over the cups, when the staff and rods are raised, and throw the seed into the tops of the tubes, when they eatch under the projections, the lower ends of the rods forcing out the seed from the tubes when the staff is dereased and theaprings the tubes when the staff is depressed, and thesprings retaining it when the staff is raised.

HARDESTERS-BY Wm. & Thos. Schnebly, of New York, City: First, we claim the arrangement of the bridges beneath the platform in combination with chain bands, having accommodating knee-formed fugers or rakes, working on pivots and attached thereto, substantially as described. Second, we also claim working the vibrating cut'er between an under and an upper open guard or finger, as described.

as described.

LABEL CARDS-By James Sharp, of Roxbury Mass.: I claim the manufacture of label cards or tickets of cloth and paper, stuck and pressed toge ther, substantially as described. of Roxbury.

MAKING CORDAGE—By David Perry, of Fredericks-burgh, Va. (assignor to  $\mathbf{F} \& \mathbf{J}$ . W. Slaughtei): 1 claim, first the arrangement and combination of the parts by which the machine is enabled to stop itself when the sliver becomes exhausted, or nearly so, in any of the cams, viz, by means of the morable bot toms within the cans connected to the rod. which pass through the tubular journals of the can frames, and desc-nd below the disc, the arm fixed near the projecting shaft, and the arm fixed near the projecting from the side of the machine; or theres-pective couvalents of the said barts, when arranged

the side opposite to the direction in which the jib tends to swing, so as to make the hauling on the said tackle, or part of the tackle, swing the jib in the op-posite direction to that in which is its tendency to swing when left free. PREPARATIONS OF ARCHIL—By Leon Jarosson, of

STAMPING ORES-By Virgil Woodcock, of Swan-zey, N. H.: I claim the combination and arrange-ment of the said arc of cogs and its wheels, the two spur wheels the shafts thereof, the drums, straps. frames, their catch levers and disengaging cams, the whole being applied to the two weights or rams, and meda to constate or alternately raise them disences

whole being applied to the two weights or rams, and made to operate or alternately raise them, disengage them, allow them to fall, and afterwards re-engage them all, as specified. And in combination with the two spur gears and the arc gear. I claim the cam on the wheel, the two spring catches, and the two pins or studs all arran-ged, applied and made to operate substantially as spe-cified.

FRICTION CLUTCH-By Wendall Wright, York City: I claim operating the segmeots for pro-ducing friction on the inner surface of a loose pulley by means of a thimble on the shaft of the pulley connected with segments by diagonal rods or braces, substantially as described.

DETACHING HARNESS FROM HORSES-By George Yellott, of Bel Air, Md : I claim the manner of con-structing the hames, the saddle-tree guard, an i stop, as described so as to enable the driver, at any time, to detach the horse or horses from the harness and buggy, carriage, or other vehicle, by a single pull, or ierk of a cord.

### Remarkable Voyage in the Air.

John Wise, of Lancaster, Pa., made his 131st aerial voyage from Portsmouth, Ohio, on the 3rd inst. His balloon voyage was a remarkable one, and the grandest he ever performed, sa far as magnificent sights are concerned. He ascended a little after 4 o'clock in the afternoon, and soon rose to an elevation of 2,000 feet. While slowly sailing along at this elevation, by the range of a hill in Kentucky, three rifle shots were fired at him, one struck the car, but so very lightly that it did no harm. He believes the striking-part was mere chance. Those who fired the shots, we have no doubt, did not imagine that there was a person in the balloon. Some exceedingly useful meteorological information was obtained by Mr. Wise in his voyage. These he states are as follows :-

1st. Thunder storms have two plates of clouds, the upper discharging the contents, whatever it may be, rain, hail or snow.

2d. Sheet lightning of an orange color undulates silently between the upper and lower cloud, in a waving motion.

3d. The discharges of electricity take place in the lower cloud, (by discharges are meant thunder and lightning.)

4th. The distance between the upper and lower cloud is not less than 2,000 feet, (this is mere eye measurement.)

5th. The uprising current was not continued higher than the lower cloud, and was rising and whirling as long as I was in the margin of the storm, being in it twenty-five minutes.

6th. The storm was much wider below than above, and the deposite diverging at least 25 deg. from a perpendicular line.

7th. The deposition of hail and rain was thickest in the centre of the storm. I could not, of course, look through it, but I viewed one from its front, the other from behind its line of direction, and they both appeared the same.

8th. Under the shadow of the upper cloud it is very cold, and in the lower cloud it is quite warm.

9th. The upper cloud was moved by the current which always blows from west to east.

10th. Other causes than the upper current may affect the horizontal course of thunder storms so as to increase or diminish their violence.

I might deduce some data from what was so distinctly observed on this occasion, but will for the present leave that to abler heads, sel of the same capacity, now built, or which and particularly to Prof. Epsy and the Smith-Institutio

Thompson, Conn., was struck and badly injured. The telegraphic wires, which pass within a rod or two of the church, seem to have had considerable influence upon the fluid. Two of the posts which sustain the wires were split, and the wires for some distance thrown to the ground. The lightning rod of the church, by some accident, had been thrown out of place.

## Extension of a Patent.

On the petition of John Brown, of Stonington, Conn., praying for the extension of a patent granted to him for an improvement in gaffs of sailing vessels, for seven years from the expiration of said patent, which takes place on the 31st of Dec., 1852

It is ordered that the said petition be heard at the Patent Office on Monday the 26th of July, 1852 at 12 o'clock m.; and all persons are notified to appear and show cause, if any they have, why said petition ought not to be granted.

Persons opposing the extension are required to file in the Patent Office their objections. specifically set forth in writing, at least twenty days before the day of hearing; all testimony filed by either party to be used at the said hearing, must be taken and transmitted in accordance with the rules of the office, which will be furnished on application.

THOS. EWBANK, Com. of Patents. Washington, June 14, 1852.

#### Tunnelling the Hoosack.

A correspondent of the Springfield Republican, of the 14th inst, gives the following account of the state of operations at the projected Hoosack tunnel:-The boring machine is on the ground, but as yet hardly resolved into. its component parts. A mass of cast iron spokes, cogs, wheels, shafts, belts, &c., &c., lay around us, out of which the workmen were slowly (for nearly every piece required a derrick and pulleys to get it into place) re-constructing the ponderous wonder. The carriage for operating the machine is in place, facing a perpendicular side of solid rock, just off the actual line of the road, which has been prepared for the first actual experiment. The immense shaft was being hoisted into position, and then would come the wheel and its accompaniments, and then the driving power, which consists of engines of one hundred horse power, and for which a building was being erected. There have been many delays in getting the machine upon the ground, and in place, and we are told it would probably be six weeks at least before everything would be ready for a start.

#### Machine for Turning Irregular Forms.

We understand that Thomas Blanchard, of Boston, has assigned his patent for turning spokes, lasts, gun stocks, and other irregular surfaces, to the Hon. James M. Quimby, Mayor of Newark, N. J., and proprietor of the celebrated coach manufactory of that place, for a good round consideration, and that the purchaser is so well pleased with his bargain, he has presented the lady of Mr. Blanchard one of his best family coaches. Several have written us of late respecting this machine, and the above will furnish information not in our possession heretofore.

American and British Ships-A Challenge. The Boston Atlas states that two or three Boston ship-owners have sent a challenge to the ship owners of Great Britam, somewhat to the following effect :- The Boston parties will produce a ship, not less than 800 nor over 1,200 tons register, to compete with any vesmay hereafter be built in Great Britain; the

|    | <ul> <li>ladelphia, Pa.: 1 claim making the box in two or<br/>more parts. with a recessite ombrace a collar on the<br/>journal part of the axle, or the equivalent thereof,<br/>sub-tantially as described, when this is combined<br/>with the mode of securing together the section of<br/>the said box, by fitting it within the hub or pipe box,<br/>and securing it therein by a nut which embraces the<br/>several sections, and which secures them within the<br/>hub or pipe box, substantially as specified.</li> <li>MOTION OF THE LAY IN LOOMS—By John Gould-<br/>ing, of Worcester, Mass.: I claim giving the lay of a<br/>loom one or more long beats for the shuttle to pass<br/>or to insert a wire into the web, and as many short<br/>beats as may be meessary or desirable to strike up<br/>each thread of weft and wire, with a toggle joint<br/>operated by a crank cam or otherwise.</li> <li>DERRICKS—By Selah Hill, of Jersey City, N. J<br/>&amp; C. H. Dupuy, Jr of Bondout, N. Y : We claim<br/>placing the axis, upon which the jib swings, in a po-<br/>sition deviating from the vertical, so as to cause the<br/>jib to have a tendency to swing in one direction, and<br/>applying the hosting tackle, or part of the hoisting<br/>tackle, in any manner substantialiy as described, to</li> </ul> | Second, I also claim the corrogating of the sides<br>of the cans, to prevent the sliver from rising there-<br>in, when it is pressed into the same. by which a much<br>larger quantity of sliver can be placed in them than<br>can be placed in cans of the usual form.<br>Third, in combination with the said corrugations<br>in the sides of the cans, I also claim the perforating<br>of the sides of the cans, I also claim the perforating<br>the air to escape therefrom, when the sliver is com-<br>pactly pressed ioto the cans.<br>Bouth, I also claim the inserting of a wing or<br>wings into each of the cans, for the purpose of pre<br>verting the combined annular and rotary motion<br>which is imparted to the cans from twisting and<br>kiaking the slivers. as they rise therein, to the upper<br>tubular journals of the can frames, substantially as<br>set forth.<br>SEWING MAGHINES—BY A. B. Wilson (assignor to<br>N. Wheeler, A. B. Wilson, A. Warren & E. P. Wood-<br>ruff), of Watertown, Conn.: I claim, first, the com- | spectacle of looking down upon a war of the<br>elements upon a scale of grandeur far surpass-<br>ing Waterloo. We advise Prof. Epsy and Dr.<br>Hare to make a number of aerial voyages to<br>settle their disputes. We think it would be a<br>grand plan for them; much better than wri-<br>ting and printing long papers on the subject.<br>Let them get up into the regions above along<br>with Mr. Wise, and make observations. This<br>point might be very useful to the Smithsonian<br>Institute in getting meteorological informa-<br>tion.<br>Lightning plays strange treaks. On the | winning party to receive £10,000, and the<br>race to be a voyage to China. This will put<br>the British shipwrights to their metal.<br>Nautical Enterprise.<br>Among the miracles of navigation, in these<br>days, deserves to be mentioned that a schoo-<br>ner of 150 tons is to leave Port Stanley, on<br>Lake Erie, for Australia direct, in August; she<br>is to be fitted up in yacht style, and it is<br>deemed that she is quite adequate to the voy-<br>age that she is to undertake. She will pass<br>through the Welland Canal into the St. Law-<br>rence, and out of the St. Lawrence into the<br>Atlantic. Whether the Port Stanley people<br>intend to run a regular line to Australia we<br>are not informed. |
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| 00 | tackle, in any mannör substantially as described, to   | bination of the bobbin for carrying one thread, with   | 15th inst. the Congregational Church, in  | are not informed.  |