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the other is carried round. The small grooves on the outer ends or peripheries of the pistons, become filled with water, and the centrifugal action makes it serve as an air-tight water packing. The rotary pistons being revolved towards one another in the air-tight case, a vacuum is formed behind them, and the water rushes in through the suction pipe, D, and is discharged through the pipe E. This constitutes the water force pump. If steam be admitted above or below the pistons and the exhaust pipe placed opposite to it, it is evident that it will answer for a steam engine as well as a pump. It is thus applied as a rotary steam and force pump in the Neptune, and one, two, or more such steam engines aud pumps may be thus very compactly arranged on the same shafting, thus forming a most simple steam fire engine. The boiler supports the machinery, and the whole is supported on a substantial carriage. The machinery and all the parts are well constructed, and the workmanship was the admiration of every person who saw it.

At the Firemen's Tournament held at Seneca Falls, N. Y., on the 10th and 11th September last, the Judges awarded it a complimentary prize of \$25 as a token of their appreciation of its merits. It threw, on that occasion, two 1 1-2 inch streams 170 feet horizontally with steam at 60 lbs. pressure. It filled a tank of 1552 gallons' capacity in three minutes and thirteen seconds. It is capable of throwing four streams and working up to 100 lbs. steam pressure. The boiler has an immense amount of tubular heating surface, the object of which is to get up steam rapidly after the fire is kindled, so as to bring it into operation on a fire in the shortest possible space of time. One great object of usefulness in a steam fire engine, is getting up steam quick; without it has this quality it will not

At a trial of the Neptune at Seneca Falls on Sept. 4th, the Seneca County Courier states that it got up a working pressure of steam in eight minutes from the time the fire was kindled, and the Editor, who stood with his watch in hand timing the operation, gave it as his opinion that this time could be shortened one minute if the fuel had been better.

During the trials which took place with the Neptune in the Crystal Palace, and which have been noticed in our columns, it did not get up steam quite so quick. On the first trial it was not well situated to obtain a good draft; on the second trial it got up the steam much faster, and had it been placed with the furnace door towards the river (as the wind was blowing from that direction) instead of being placed in the opposite direction, it no doubt would have generated steam much faster.

Mr. Silsby informs us, that on an examination of the Neptune, after its return from this city, some hard substance, like emery, was found in the bearings, which caused it to grind down and thus leak steam; it was, therefore, not in proper order during its trials here. It is now undergoing repairs, which when completed, its owners pledge themselves for \$1000 that it will surpass the engine with which it was tested at the Crystal Palace, in a steady play of from two to six hours, both using the same kind of fuel, and taking water in the same manner.

It is constructed under Birdsill Holly's patent of February, 1855. For more information address Silsby, Mynderse & Co., at Seneca Falls, N. Y.

Coal and Trees.

It is generally admitted that coal is the product of a buried vegetation-mostly trees. How thick they must have grown in the coal period! It is calculated that an acre of coal three feet thick is equal to the produce of 1,940 acres of forest. The first coal mines were worked in Belgium in the year 1198, and very soon after in England. There is now raised five times as much coal in Great Britain as in any other country; and it is estimated that there is in these isles more than 4,000 square miles of coal fields vet to be cut out.

A large number of iron paddle wheel steamers are now building at Walker-on-the Tyne, England, to run on the river Nile in Egypt.



Advice to American Patentees Concerning Foreign Patents. It is generally much better to apply for foreign patents.

simultaneously with the application here. If this cannot be conveniently done, as little time as possible should be lost after the patent is issued, as the laws in some foreign untries allow patents to any one who first makes the application, and in this way many inventors are deprived

of their right to take patents for their own inventions.

Many valuable inventions are yearly introduced into Europe from the United States,-by parties ever on the alert to pick up whatever they can lay their hands upon which may seem useful.

in fact three-fourths, and probably more, of all the patents granted in Europe to Americancitizens, are solicited through this office. We have faithful agents in the chief cities in Great Britain and on the Continent, and through them we can not only solicit patents, but often effect their sale upon advantageous terms. We can give the names of many of our patrons who have realized fortunes out of their European patents through our Agent abroad, if it is desired

We are prepared at all times to furnish advice in re gard to Foreign Patents, and will cheerfully do so on ap plication personally at our office or by letter.

Models are not required in any European country, but the utmost care and experience is necessary in the pre paration of the case.

Almost every invention that is of value in this country is of equal value abroad, and we would recommend patentees to pay more attention to securing their inventions in foreign countries than they have heretofore done.

All particulars in regard to the modus operandi of ob taining patents in any country where patent laws exists may be had by addressing the publishers of this paper. MUNN & CO.,

128 Fulton street, New York

(Reported Officially for the Scientific American.)

LIST OF PATENT CLAIMS issued from the United States Patent Office FOR THE WEEK ENDING NOVEMBER 4, 1856.

FOR THE WEEK ENDING NOVEMBER 4, 1856.

OPERATING THE PAWL CASES OF A SHIP'S WINDLASS—Christopher Amazeen, of Newcastle, N. H.: I am
aware that it is not new to operate the pawl cases by a
single brake lever, and that a lever working on a vibratory post is not new, as the same has been applied to a
pump, therefore I do not claim such.

Nor do I lay claim to a single brake lever, and two
levers or series of levers applied to a windlass so as to
turn it by a single gear affixed on it, as is shown in the
specifications and drawings of Niaiance & Pelatiah Osgood's rejected applications for patents.

I claim the arrangement of the brake levers, H H, connection lever, G, vibratory posts, I I, and two pawl
cases, B C, as applied to a post and windlass barrel, substantially as specified.

CUTTING METALS—Robert Anderson, of U. S. A., and Aaron H. Vancleve, of Trenton, N. J.: We claim the use of the parallel table, B. revolving table, M. and traversing table, B., in connection with machinery for punching and shearing metals, when the said tables are constructed and operated in the manner described for cutting and punching straight, curved, or irregular forms in metals, as set forth.

EQUATORIAL SEXTANT—William A. Burt, of Mount Vernon, Mich.: I claim combining with the common sextant equatorial and horizontal movements, substantially as set forth, for the purposes of obtaining latitude, time, azimuth, altitude, and declination, which are read from the instrument without computation.

I claim combining the limb, E., which moves over the face of the hour circle with the limb, n, by means of the slotted arc, or equivalent thereof, and movable bearing, K2, and vertical spindle, S.

I also claim combining the latitude circle with the limb, n, by means of the limb, E. having its center of motion on the line, m m, the arc, F, and bearing, K2, and vertical spindle, S, as set forth.

ODOMETERS—Albert Carter, of Forestville, Conn.: claim the bearing ring, D, the catch spring, F, and the set screws, E, on which the case containing the movements turn by the action of the carriage wheel, and produces the result of indicating the distance traveled, it the manner and for the purpose as set forth and described.

scribed.

R.R. STATION INDICATORS—Edwin A. Davis, of Crawfordville, Ind.: I do not claim the endless apron, F, operated by a spring, for that has been previously used for the same purpose.

But I claim the bar, Q, connected with the pawls, j j k k, and operated by the lever, R, and crank, p, arranged specifically as shown and described, for the purpose set forth.

[Instead of having the conductor of the train shout out the names of the stations on a railroad, as is now the custom, this invention is designed to show in a visible man ner the name of each station, as the train arrives at it, in the same manner that an Annunciator exposes the num ber of a room. The names of all the stations on the rail road are painted or marked on an endless apron confine in a box having a small show window. The rollers over which this apron passes are connected with gearing, a coiled spring and lever; the latter is so situated that it comes in contact with a projection placed at some particular spot at a station, and by this means the marked apron is moved so as to expose positively the name of the station at the window. This station annunciator may be operated by hand, but it is better to have it self-acting. Conductors often speak so indistinctly as not to be under stood, and they sometimes forget to call the names of the stations; this invention obviates these evils, and is, evidently, a good improvement.]

ROCKING CHAIRS—Martin Eberhard, of Philadelphia a.: I do not confine myself to the exact form of the

Pa.: I do not confine myself to the exact form of the frame or working parts.

But I claim, first, the lever, I, the link, L, and lever, K, in combination with the seat. F. and adjustable foot rest, G, the whole operating substantially in the manner and for the purpose set forth.

Second, the treddle, M, its arm, N, and link, O, in combination with the frame, P, and footrest, G, operating substantially as described and for the purpose specified.

Third, the crank shaft, V, the lever, S, and link, T, in combination with the cross piece, C, and frame, P, substantially in the manner and for the purpose set forth.

Joint for Uniting A Mortising Chisel for its Mandret.—Joseph R. Perry, of Port Clinton, Pa., I claim securing the revolving chies locket J, to the cross head or cap. H, by grooving both in the manner described, and filling the annular space thus created with a metallic composition, as specified.

R.R. CAR BRAKE—William G. Creamer, of New York City: I disclaim generally any and all plans of reserved power, for closing brakes in cases of emergency, that is not identified, and in direct combination with the apparatus that is used for ordinary cases, and if used from the engine, that is, not in combination with the usual bell or signal cord of the train.

I do not claim directly or indirectly the use of weights or springs for closing brakes, nor as a reserved power.

Nor do I claim any powerful attachment to any one car by the brake shaft, and transmitting its power from car to car by means of chains, levers, pulleys, &c., as invented by Crawford, even considering it as a reserved power.

vented by Otawasa.

I claim no apparatus whatever involving a connection of brakes from one car to the other.

But I claim generally the attachment of a reserved power for applying the brakes in sudden emergencies connected to and identified with the present brake shaft, as used in eight-wheel platform cars, and operating in combination with the common bell or signal cord of the train.

bination with the common bell or signal coru of the train.

I claim the combination of the cross bar, D, with the springdrum, E, and circles of ratchet teeth, F and H, operating in connection with the vertical brake shaft, I, or the equivalent of a loose pulley with a double circle of ratchet teeth arranged in the same way, but actually by a weight or spring operated as described and for the purposes mentioned.

I also claim the combination of the jointed pawl, L M, and disconnecting lever, N, with the drum, E, as specified, for retaining and disengaging the reserved power when required, while the brakes are being operated by hand if necessary.

Spading Machines—Ormrod C. Evans, of Staunton, Ohio: I claim the combination of a series of forks or space blades with an endiess chain, and with a drum and rellers arranged in such order upon a carriage that by the progressive onward motion of the machine the said spades or forks will at first be forced by a direct or nearly direct thrust into the ground, and afterwards in the act of being lifted by the chain out of the ground shall be made to turn at such short angle with the surface as will cause the breaking and upheaving of the ground, substantially as described.

Husking Corn—Harlan P. Gerrish, of Boscawen, N. H.: I claim the use of the hooks, b b, or their mechanical equivalents, arranged and made to operate essentially as described, in connection with two knives, I K, for the purpose of cutting off the stalk of an ear of corn, and removing the husks therefrom.

I also claim making the cylinder, C, with the depression, c d e, for the purpose as described.

AUTOMATIC MUSICAL INSTRUMENTS—Hiram Groves, of New York City: I claim, first, constructing the barrel of automatic musical instruments of a prismatical form, and by leaving spaces between the bars or rails covering it, substantially as described.

Second, notching the rails or bars of an organ barrel, and securing in the said rails a wire, in the manner specified, and for the purpose set forth.

Third, constructing the tunes of automatic musical instruments of metallic segmental plates, in the manner and for the purpose described.

COWL OR DRAFT ACCELERATOR FOR STEAMERS— Peter C. Guion, of Cincinnati, Ohio: I do not claim any f the several devices, surfaces or parts described sep-Peter C. Guion, of Constant of the several devices, surfaces or pare surfaces of pare arrately.

But I claim their combination constructively, in the manner and for the purposes described and shown.

Dannis Harrigan, of Winchester, in combina-

R.R. CAR BRAKE—Donnis Harrigan, of Winchester, Mass.: I claim the compensation rods, G, in combination with the levers, J and K, or their equivalent, operating in the manner and for the purpose substantially as described.

MAKING ROPE—John Harris, of Hoosick Falls, N. Y.: I claim the described method of driving the flyers by arranging them radially to the main or laying spindle. B, and providing them with rings, G. G, er wheels, or their equivalents, to roll in contact with a stationary table, F, when rotary motion is given to the main or laying spindle, said rings being adjustable to bring them nearer to or further from the center of the main or laying spindle for the purpose of varying the speed, as set forth.

[This improvement relates to rope machines having the sun and planet wheel motion. The flyers in rope ma chines have a motion around their own axes, and a laying motion round a central general axis. If these motion are changed relatively, so will be the character of the rope made by the machine. In this machine the flyers can be arranged with great facility to alter their relative revolutionary speeds, and thus produce any degree of twist desired. The improvement is simple and good.]

CATOR FOR INDIA RUBBER SHOES—Nathaniel Hayward, of Colchester, Conn.: I claim the use of a steel rubber, or other kind of spring catch of any proper shape, in the heel of an india rubber overshee or clog, having a projection or lip extending out horizontally or through the quarter, as specified, whereby the overshee is prevented from slipping at the heel, and is susceptible of being disengaged from the under boot or shoe without using the hands, as set forth.

FISHING IMPLEMENT — Elmore Horton, of Bristol Conn.: I am aware that spring grab ho ks with notched cross bar have been used. But I claim the spear cross bar, c, notched at each end, e.e., in combination with the spring jaws, a a, as set forth and dearths.

Looms—Lucius J. Knowles, of Warren, Mass.: I do not claim a single picker operating in connection with a movable series of shuttle boxes, and so as to pass from one box into another of the series as occasion may re-

one box into another of the series as occasion may require.

But I claim a combination of a single picker staff, pickers and boxes, substantially as described, wherein there is a separate picker for each box of the series, and all such pickers are successively moved towards and operated by such single picker staff during the operation of waving with the shuttles of the said series of boxes.

Would remark that I by no means claim making a bar with a bend or recess, as I am well aware that such, without any reference to a special use of said bend or recess is no new invention consisting in the bend or recess. For each of the picker staff, when applied to operate a series of pickers, arranged in a set of shuttle boxes as described, the improvement consisting in the bend or recess. G, applied to the picker staff, so as to enable it while operating a picker to pass by another picker under the former, and not move the said other picker under the former, and not move the said other picker in its box, the whole being substantially as specified.

And I also claim making the picker staff with a bend

cified.

And I also claim making the picker staff with a bend or recess, g, or its equivalent, so as to enable it, while operating a picker to pass by another picker and not move the same in its box, the whole being substantially as specified.

AUTOMATIC RAKES FOR REAPERS—Pells Manny, of Waddam's Grove, Ill.; I claim pivoting the rake, B, for curvilinear play over the platform, to the up and down moving lever or supporting beam, D. and arranged to operate together and separately at intervals in relation to the platform and each other, in the manner and for the purposes set forth.

BURGLAR'S ALARM—Wm. McLachlan, (assignor to Robert Livingston,) of New York City: I am aware that alarms have been applied to locks; I therefore do not claim the alarm or any particular construction of the

alarm.
I claim simply the application of a portable alarm of any construction to the key, in the manner set forth, so that the key being in the lock in one position cannot be interfered with, or the position changed without indicating the same by causing an alarm to be given.

LUBRICATOR-James F. Monroe, of Fitchburg, Mass. I claim the plate, H, and plug, E, as arranged and com-bined with each other and with the labricating cup for

SPRING FRAME FOR PACKAGES—Henry B. Osgood, of Dorchester, Mass.: I claim the arrangement of the protector frame, B, in relation to the box or other receptacle, A, and its combination therewith by means of the elastic fastenings, C, or their equivalent, substantially as and for the purposes set forth.

HAY RAKES—Thomas R. Roach, of West Needham, Mass.: I claim the springs above and below the teeth, operating in the manner and for the purpose substantially as set forth.

TROWELS—L D. Phillips, of Chicago, Ill.: I do not claim a mortar chamber having a follower operated in it, as that has been heretofore known.

But I claim, first, the open bottomed chamber provided with flanges or trowels, D D, arranged in the manner and for the purpose described.

Second, I claim the adjustable gauges, E E, as applied to my trowel, operating in the manner and for the purpose described.

Third, I claim the general arrangement of the follower and its appendages, viz., springs, B B, guide or brace, C, and handle, I, in the manner and for the purposes described.

COTTON GINS—Wilson A. Purdom, of Jackson, Miss.: I claim, first, giving to the cotton to be ginned within the feed box and before the saws, H. a reciprocating motion, by means of the corrugated cylinder, A, or a modification of such cylinder, and the corrugated approns, B, or either of them separately, or their equivalents, so that the cotton will pass back and forth slowly in bulk, or nearly so, before the saws, thus presenting a fresh surface to the action of the saws throughout the entire length of the saw cylinder without leaving any of the saws idle, and without the accumulation of seed at one end of the box, or the banking up of the cotton at either end.

Second, for the purposes aforesaid I claim the cylinder, A, or its equivalent, whether it is placed within or outside of the cotton roll, and whether it is permanently attached to the apron, B, or not, also whether it revolves or not, or whether that revolution is continuous or intermittent.

Third, and for the purposes described I claim the corrugated apron, B, or its equivalent, whether it is operated conjointly with the said cylinder, A, or not.

Husking Corn—Joshua Perkins, of West Killingsley,

Husking Corn—Joshua Perkins, of West Killingsley, Conn.: I claim the improvement of so operating the two two cutters or chisels, A and B, that during their descent into the stalk of the cob they may pass into it in contact with each other, so as to pierce but one hole, and thereafter receive a lateral motion simultaneously in opposite directions, so that while one chisel or cutter is made to discharge the husk from the machine, the other is caused to discharge the ear therefrom in the manner described.

CHAIN PUMPS—John Robingson, of New Brighton, Pa. I do not claim the drum or wheel, B, with the buckets hung as described in it, and tilted by striking a stop, the bucket chains passing round the sides of the drum, as such and many other parts or details are common to chain bucket pumps.

But I claim providing the wheel, B, having its buckets and chains arranged as described, with a partition, C, forming troughs, D D, and tilting stops or bars, G, arranged relatively to each other, and rotating together with the wheel and its buckets for operation together, as specified.

[This natent for an improvement in chain numps re-

[This natent for an improvement in chain numps reendless chain of buckets to a discharging wheel, which contains chambers for receiving the water. This wheel rotates and discharges the water from its troughs into the pailor tub placed to receive it. It is stated to be a very convenient arrangement for discharging the water.]

convenient arrangement for discharging the water.]

Sewing Machines—S. H. Roper, of Roxbury, Mass.:
I claim, first, a thread guide which guides the thread into the eye of the needle by means of the projection, y, and the thread holder, m, forming a thread clamp, and griping and holding the thread between them, while the thread guide with its clamp revolves undit the thread is wrapped partly round it, and stretched across the aperture therein: and then also by means of the thread guide with the thread the hold moving laterally, until in this manner and by means of these rotary and lateral motions the thread is effectually guided into the eye of the needle.

Second, the working of eyelet holes in cloth or other material by means of a rotary feed motion combined with the slotted tube, v, and two needles, all substantially as described.

STARTING AND STOPPING WATER WHEELS—David M. Tyler, of Lisle, N. Y.: I claim the combination of the frame upon the main shaft, and the spring dog, i. en the same, with the notched disk, D. and the reds leading to the swinging buckets, or their equivalents, for effecting the opening of the issues and locking of the same, substantially as set forth.

I also claim the beveled disk, B. in combination with the study of the dog, or their equivalents, arranged and operating substantially as set forth, for permitting the water in the wheel to close the issues.

THROSTLE SPINNING MACHINES—Joel Smith, of Northbridge, Mass.: I claim regulating the twist of the yarn in ring spinning machines by communicating a gradually accelerated motion, proportionate to the gradually increasing diameter of the bobbins, to the rolls, which give out the yarn to the bobbing, substantially in the manner and for the purposes set forth.

Weaving Long Warps—John C. Smith, of New Hartford, Conn.: I do not claim a carriage traveling at right angles with a warping frame, carrying the beam so that the warp may be laid in a regular succession of layers as received thereon, for I am aware that such is not

new.

Nor do I claim dispensing with a warp beam in manufacturing cloth, for I am aware that cloth has been woven with yarns for the warp taken directly from spools.

But I claim a box arranged substantially in the manner and operated by the mechanism described, incombination with the arrangement for dispensing with the warp beam as described, for the purpose of laying the warp in a regular smooth succession of layers evenly, that the box may give out the warp free from twists or tangles.

STIRRUPS FOR RIDING SADDLES—Richard Trussell, of Brooklyn, N. Y.: I do not claim the toe pieces, as I am aware that a toe piece has been used on a foot piece attached rigidly to the bow of the stirrup.

But in combination with the use of the toe piece or its equivalent I claim the attachment of the foot piece, B. to the bow, A. of the stirrup by a shaft, C, or other connection of similar character, jurnished with a spring, e, to operate in the manner substantially as set forth.

[This stirrup has a bow made separate from the foot piece, and the latter is hung loosely on a spindle or shaft passing through the bow at each side. There is a turned up toe curb on the foot piece, to prevent the foot of the rider passing too far through. There is also a spring under the spindle of the foot piece. If the horse should start to the one side, or rear backwards, or throw the rider forwards, the toe part of the foot piece of the stirrup will swing up at an angle, and the foot of the rider be thrown out of the stirrup. Many persons have lost their lives by being thrown from horseback, and one foot retained in the common stirrup, whereby they were dragged along, dashing on the ground until life was extinct. This improvement will prevent such accidents. It is simple and good, and applicable to ladies' as well as gentlemen's saddles.]

SAWING MARBLE AND STONE—George J. Wardwell, of Hatley, Canada: I claim suspending the swinging saw frame, B, from levers, C C, when arranged as described, and constructed with or without the circular bearing surface, O, resting on the friction roller or rollers, G, in the endof the vertical lever or levers, D, attached to and swinging with the swinging saw frame, B, the whole being arranged in the manner and for the purpose specified.

the whole being arranged in the manner and for the purpose specified.

Sewing Machines—Isaac M. Singer, of New York (ity: I do not wish to be understood as limiting my claim of invention to the precise form and construction of parts, as these may be varied without changing the principle of my invention.

I claim operating the needle to give it the required reciprocating motions, substantially such as described, by a crank pin or roller on a rotating shaft, acting in a cam groove, substantially such as described, whereby the required motions are imparted to the needle with much less extent of motion of the crank pin or roller in the cam groove were on the shaft, and the pin or roller on the needle carrier, as described.

I also claim projecting the operative part of the surface of the feeding apparatus through the surface of the required feeding motion to space the stitches, while the other portions of the said maferial slide on the



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table which answers the purpose of stripping the said material from the feeding surface, and to cover and protect the mechanism which operates the feeder, as set I also claim imparting the feeding motion to the feeder, to present the material to be sewed to the action of the needle for spacing the stitches, by griping the periphery thereof, or any equivalent therefor, by a griping lever, substantially as described, in contradistinction to the action of a pawl or hand, catching on to ratchet teeth, whereby the extent of feeding motion may be adjusted and varied to any degree instead of being restricted by the size of ratchet teeth, and whereby also I avoid the wear and liability to derangement incident to the use of a ratchet motion, as set forth.

And lastly, I claim in combination with the feeder attaching the presser for controlling the material to be sewed, and holding it to the surface of the feeder to a slide or equivalent therefor, substantially as described, so that the plane of its under surface shall always bear the same relations to the plane of the table in a line ator nearly at right angles to the line of the seam, whether the material to be sewed be thick or thin, and for the purpose set forth.

HEATING OR COOKING BY GAS—Wm. F. Shaw, of

HEATING OR COKING BY GAS—Wm. F. Shaw, of Boston, Mas.: I claim combining with the wire gauge or perforated tube, D, and the air and gas burner, A, an air guide or concentrator, G, applied thereto, substantially in the manner and for the purpose specified.

SELF-ACTING HEAD AND TAIL BLOCKS FOR SAWING MILL—A, S. Walbridge, of Burlington, Vt. Patented in Canada, July 20th, 1853: I claim the combination and arrangement of the T-shaped carriage blocks, B B, connecting rack, C, and setting off shaft, E, substantially as specified, whereby a self-operating carriage of any desired length or compactness is produced.

I also claim the self-setting-off device, composed essentially of the ratchet, I, disks, V W, adjusting stop, O, and stationary cam, U, arranged and operating substantially as described.

DRAIN TILE MACHINE—Thomas Maycock, (assignor to himself and Henry Rice,) of Buffalo, N. Y.: I claim the combination of the annular ring, I, with the plunger, the latter having a smaller diameter than the ring and cylinder, constructed arranged and operating substantially in the manner and for the purpose set forth.

FABRIC FOR UNDERLAYING CARPETS—William S. Pratt. (assignor to J. S. O. Thursby.) of Brooklyn, N. Y.: I claim the described cellular paper or paper board, for the purpose of underlaying carpets on floors.

[The fabric which forms the subject of this patent consists of thick paper or paper board, made cellular by perforating it thickly. When it is laid between a carpet and a floor, the dust, which is always driven in greater or less quantities through the carpet by sweeping, is forced and retained in the holes or cells, leaving the carpet much cleaner than if placed on the bare floor, or with straw under it, in the common way. Italsoobviates the neces sity of taking up the carpet so frequently to beat and shake it, as it keeps quite clean until all the cells are filled with fine dust. This fabric lying under carpets, by securing the dust underneath not only makes the colors appear more fresh, but also serves to make the carpet wear longer. This invention is a simple one, but very useful and good, and will, no doubt, come into general use. It has been assigned to J. S. C. Thursby, rope manufacturer, of Brooklyn, Eastern District.]

ufacturer, of Brooklyn, Eastern District.]

Power Looms—Alexander Smith & Halcyon Skinner, of West Farms, N. Y.: We claim, first, mounting the yarns for forming the ranges of tufts in parcels on a series of spools, or equivalents therefor, in the order required for producing the design or pattern required, so that each spool, or the equivalent therefor, may be brought in succession to the required position for each range, substantially as described.

Second, the mode of operation substantially as described, by which the spool frame required at each operation is brought down in close proximity with the tufting warps and then carried out of the way of the lay when performing its oper ations, as described.

Third the mode of operation by which the tufts of yarn are introduced and applied to the tufting warps, substantially as described.

Fourth, the mode of operation by which the tufts are cut off from the yarns after they have been introduced.

Fifth, the mode of operation by which the tufts are carried to the required place in the fabric by the combined action of the reed and plate, or any equivalent therefor, as described.

Sixth, and in combination with the several modes of operation by which the tufts are carried to the required place in the fabric by the combined action of the reed and plate, or any equivalent therefor, as described in the fabric by the warp threads.

Skutter Fastener—David M. Lawrence, of Cincipation of the content of the tent of the content of t

Shutter Fastener—David M. Lawrence, of Cincinnati, Ohio: Iclaim a lock plate, D, when constructed with a semi-circular flange, having a series of notches cut therein, in combination with the spring stop, E, and hinge, C, the whole being arranged substantially as and for the purposes described.

CRUSHING ROLLERS FOR ORES—Wm. H. Plumb, of New York City: I claim the construction, combination, and arrangement of the stationary and movable roller adjusted to the work to be done, in the manner and for the purposes set forth.

CIDER MILLS—Benj. Mackerley, of New Petersburg, Ohio: I am aware that round teeth whose sides are spirally and annularly grooved have been used on a cylinder, and within the concave combined therewith. I claim the combined use of flat-sided saw-edged teeth upon the cylinder and within the concave, substantially as set forth.

Tool for Tenoning, &c.—Alfred Tippett, of Washington, D. C.: I claim so making of the chiesels adjustable in the stock as that they may be made to cut also a dovetail tenon with the same tool, and without reversing the same, and so that said tool may be used in any ordinary mortising machine, and thus avoid the expense of two machines, the whole being arranged specially as set forth and for the purposes described.

CUTTING S HOR PEGS—Stephen K. Baldwin, of Gilford, N. H. Patented July 16th, 1856. Extended 7 years from July 18th, 1842: I claim the combination of the vibrating knife, 0, or its equivalent, with the fluted roller, 0, or its equivalent, operating in the manner described.

SEWING MACHINES—Elmer Townsend, (assignee of Alfred Swingle) of Boston, Mass. Patented July 22d, 1856. I claim the employment of a hook in connection with the looping needle, and arranging said hook so that it shall pass into the cloth or material from the same side of it on which the looping needle works or is situated further also.

ted.

I further claim the method of arranging the feed motion or mechanism, the feed wheel thereof being disposed horizontally, and its teeth made to engage with those of the rack situated on the vertical side of the clamp, the whole being substantially as specified.

A Patent Case.-Confusion Confounded.

Sickles' Cut-off.—On the 6th inst., before Judge Nelson, U. S. Circuit Court, this city, a very important case was decided respecting the infringement of the patent of Sickles' cutoff for steam valves.

The parties were Sickles against Wm. Borden, proprietor of the splendid steamboat Metropolis, running on the line between this city and Fall River. The complaint was that the cut-off used on the Metropolis, known as " Al-

ed May, 1842. The case was before the court its use up to the 20th of May last, the date on for about two weeks, and was defended by which the patent expired. At the rate of \$750 Messrs. Stillman, Allen & Co., of the Novelty Works, this city, Mr. Horatio would be over \$12,000—a rather snug sum. Allen, the inventor of the cut-off against This case we hold to be a very remarkable which complaint was made being the princi- one. Here we find a company sued for dampal witness. The defence rested mainly upon ages for infringing a patent which the Patent the ground that there was no infringement of Office has declared was issued illegalty, and the Sickles patent; that the cut-off on the for which an extension was refused, as set Metropolis was essentially different from that forth on page 309, of our last volume, on the of Sickles. The Court charged the jury in grounds that it was not the invention of F. favor of the plaintiff, and after a very tew | Sickles. minutes the jury returned a verdict against the defendants, assessing the damages at \$750, neer and inventor, evidently considered his for sixty days use of the invention, for which cut-off essentially different from that of period this action only covered. It has now Sickles'. The decision of the Jury was based been in use on this steamboat for more tha vapon quite a different opinion. Who is right?

fringement of Frederick Sickles' patent, grant ; two years, so that a new action would cover

Mr. H. Allen, who is an experienced engi-

Table of Patents Issued to Each State, in the year 1855.

	CLASSES.	Agriculture.	Metallurgy and Manufacture of Metals,	f Fihrous and Ti	. Chemical Processes, &c.	Calorificate, Lamps, Stoyes, &c.	Steam and Gas Krightes,		II. Mathematical, Philosophical and Optical Instrum	Civil Engiceering and Architecture.	Land Convoyance,	Hydraulics and Proumatics.	I. Lever, Screw, and other Mechanical Powers,)I. Mills and Mill Gearing,		V. Stone and Clay Manufactures,	J. Lexhor, &c.	III. Household Furriture, &c.	TH, Art.—Polie, Fine, &c.	N. Fire Arms and the like,	Surgical and Vedical Instruments.	il. Wearing Apparel, &c.	LLA Grandens,	LOCALS.
	N. J. Penn. Del. Md. Va. N. C. S. C. Fla. Ga. Adla. Miss. La. Ark. Fexas Mo. Tenn. Kén. Ohio ind. IIII Mich. Foreign	46 41 17 1 4 16 0 0 0 2 1 1 3 2 0 3 2 3 2 3 9 11 2 0 1 0 5	2 1 21 0 21 42 5 13 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	4 7 0 34 7 9 38 8 17 0 3 0 0 2 2 2 0 0 1 1 3 0 0 0 2 2 4	1 1 0 11 1 1 222 9 13 0 0 0 0 0 0 0 1 1 2 3 1 0 0 0 0 0 1 1 5	2 2 2 2 3 3 6 333 4 26 0 2 2 3 0 0 0 1 0 0 0 5 0 0 3 1 1 1 0 0 0 4 2 2	1 0 0 0 11 2 5 5 7 14 0 0 0 0 0 0 0 1 0 0 0 0 1 2 7 7 0 1 1 1 1 1 0 0 0 3 1 1 -	2 0 1 1 13 3 1 0 0 29 2 3 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 1 1 0 0 0 0 1 1 1 4 4	0 2 0 0 1 7 3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 2 1 14 0 0 0 29 1 18 0 0 0 0 0 0 2 2 10 2 2 0 0 1 1 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 2 6 9 0 1 41 1 1 3 3 4 4 4 1 1 0 0 0 0 0 0 0 3 7 7 5 0 0 2 1 1 1 0 0 0 1 1 1	0 3 3 14 0 8 29 5 11 3 2 2 1 1 0 0 0 0 0 0 1 5 1 4 0 3 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 1 5 0 4 13 0 0 4 0 0 3 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 3 3 0 0 0 10 2 12 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 7 30 0 9 53 9 18 0 0 0 0 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 6 0 2 2 2 6 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 0 16 0 1 12 4 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 2 19 0 6 6 23 0 7 0 2 3 0 0 0 0 0 0 1 1 0 0 0 0 0 1 1 1 1 1 1	2 1 1 27 1 5 32 5 5 18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 2 2 2	0 1 1 3 0 0 8 1 1 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 1 0 1 1 1 4 0 0 0 0 0 0 0 0 0 0 0	0 1 1 10 1 6 15 3 12 0 0 0 0 0 0 0 1 1 2 0 0 0 0 0 1 1 1 1	21 42 34 300 21 104 535 80 228 8 30 46 4 7 4 7 7 11 9 17 11 4 7 8 23 120 38 46 28 29 46 20 20 20 20 20 20 20 20 20 20 20 20 20
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the only States that have patents in every class.

The greatest number of patents in any one class was for class 1; the next for class 14.

Harvesters, seed planters, looms, sewing machines, pumps, saws, and fire-arms seem to have employed many inventors the number substituting maize (or indian corn) leaf for of patents for those articles being:—Harvest- | tobacco, probably a new improvement, but is ers, 58; seed planters, 39; looms, 33; sewing it useful? Lovers of "the weed" must anmachines, 39; pumps, 35; saws, 40; and swer. fire-arms, 34. Total, 278. If we reflect on

High Railway Velocities.

The London Mining Journal states that M. Jobard, of Brussels, is of opinion that no insurmountable difficulties would be encountered in raising the ordinary speed of railway trains to 500 miles per hour. He advises an extremely firm built carriage, three tubular boilers in front, supplying three rotary endriving wheels of 20 feet diameter, Roucher- from the product of silk worms fed by themlen & Bell's adjustable cut-off," was an in- jies' preserved sleepers, a central safety rail for selves.

REMARKS-New York and Pennsylvania are | the long time that looms, pumps, saws, and fire-arms have been in use, it seems surprising that so much novelty was so lately discovered in them, and the present year will doubtless bring to light nearly as much more. It may be interesting to the lovers of good segars, to know that a patent was granted for

Ridge, Md., October, 1856.

sharp curves, and steel-surfaced rails and

Mr. Jobard is a very clever man and a tolerable writer upon patent law, but he has got his head out of joint on railway traveling.

The Richmond, Va., Whig has seen several beautiful white silk handkerchief, made by gines, placed upon the axes of three large the Misses Willis, of Rappahannock county

Patents Extended During 1855.

The following is the list of the patents which were extended during 1855. These are never made public until the Commissioner's Report is published, and this is the reason why they do not appear in our regular weekly lists. The extension is for seven years from the close of the first term, or twenty-one years from 1841, consequently they will all expire in 1862, except the two which are dated 1842.

Working the steam valves of steam engines when the steam is cut off and allowed to act expansively.—Robert L. Stevens & Francis B. Stevens. January 25th, 1841.

Applying Water to Fire-Engines.—Franklin Ransom & Uzziah Wenman. February 13th,

Seed Planters.—Moses Pennock & Samuel Pennock. March 12th, 1841

Cutting Square Joint Dovetails.—William Perrin. March 24th, 1841.

Construction of Iron Truss Bridges.—Squire Whipple. April 24th, 1841.

Form of the Screw Propeller.—Ebenezer Beard. April 10th, 1841.

Pumps.—Jesse Reed. April 16th, 1841. Constructing Screw Wrenches.—Loring Coes. April 16th, 1841.

Constructing Railroad Carriages to ease the Lateral Motion of the bodies .- Charles Davenport & Albert Bridges. May 4th, 1841.

Dredging Machinery .- J. R. Putnam. May 6th, 1841.

Machine for Riving and Dressing Shingles .-

Wm. S. George. May 29th, 1841. Marine Steam Engine.—Charles W. Copeland. June 11th, 1841.

Endless Chain Horse Power.—Alonzo Wheel er & Alexander F. Wheeler, Executors of this last will and testament of Wm. C. Wheeler, deceased. July 18th, 1841.

Portable Circular Saw Mill.—Wm. W. Calvert & Alanson Crane. July 16th, 1841. Constructing Gins for Ginning Cotton .- Jo-

seph T. Pitney. July 23d, 1841. Machine for Removing Buildings, &c.-Lewis

Pullman. August 21st, 1841. Machine for Sticking Pins into Papers.— Samuel Slocum. September 20th, 1841.

Making Pipes or Tubes of Lead, Tin, &c.-George N. Tatham & Benjamin Tatham, Jr. March 29th, 1841. Wire Heddles for Weavers' Looms.—Abraham

Howe & Sidney S. Grannis. October 11th, Saw Mill for Re-sawing Boards, &c .- Pear-

son Crosby. November 3d. 1841. Spark Arresters.—Wm. C. Grimes. February 12th, 1842.

Thrashing and Winnowing Grain.-Andrew Ralston. Feb. 21st, 1842.

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Now that the Presidential Election is over, we hope our inventors and mechanics will turn their attention more earnestly to the practical wants of the country. We must go on from one step of progress to another in the practical arts. There is no stand-still policy The demands of the age are not met.

Inventors, send on your sketches and mod els for examination.

We would call the attention of whoever wants an excellent steam engine to the advertisement of S. C. Hill's. We saw the engine running at the late Fair of the American In stitute, and were much pleased with it.

A bed of coal has been discovered by the officers of the U.S. steamer Massachusetts, in the Straits of St. Juan de Fuca.

At the late Indiana State Fair seven corn mills were tested together. Each mill was made to use eleven feet lever, and to perform twenty revolutions, while their hoppers were kept supplied with ear corn of the same quality. The following shows the average power employed and the quantity of meal made by each mill:—

	Lbs. power.	Qt₃. me
Excelsior Young America	382	5 8
Star Mill	. 370	53
Brant's Mill	. 234	44
Little Giant	. 387	7 8
Eagle and Troy Mill broke	e down.	