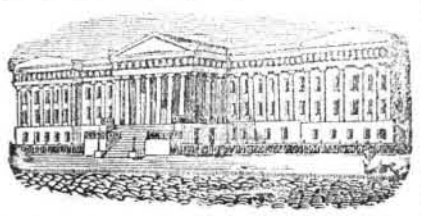

[Reported Officially for the Scientific American.]

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING SEPT. 11, 1855.

CUTTING STANDING COTTON STALKS—J. W. Bocage, of Cypress Mills, Ark.: I claim the employment or use of a series of circular saws, d', placed upon a vertical shaft, J, and rotating between the bars, e, of a metallic frames, L, the saws and frame being placed upon or attached to a proper carriage, and arranged as shown.

[This is a very excellent improvement. An engraving with a full description of the same, will be found on another page.]

LANTERN GUARDS—C. H. Butterfield, of South Lancaster, Mass.: I claim making the guard movable by means of the hinges and catches, as described, or any other substantially the same.

SAW MILL CARRIAGES—R. S. Eastham, of Blanchester, Ohio: I claim the wedge blocks, 3, 3, 3, 3, worked by the rods, 5, 5, and springs, 7, 7, for elevating the steadying strips, 4, 4, up against the log, for holding it steady while being sawnd: the whole being operated by the machinery described and represented, for the purposes stated.

I also claim the combination of the catches, 8, 8, attached to the bottom of the wedge blocks and ratchets, 6, 6, for holding the wedge blocks to their place, after elevating the strips against the log, for the purposes stated.

HARVESTING MACHINES—J. E. Heath, of Geneva, O.: I claim, first, suspending the reciprocating bar, n, by means of the stirrups, q and r, near the ground, in front of or behind the driving wheel, in or near the same plane as the finger board, in combination with the angular friction roller, the whole being arranged and operated in the manner and for the purpose set forth.

Second, the adjustable pressure bar, x, constructed and arranged as described, in combination with the cutter teeth, t, and fingers, u, for the purpose specified.

LIFE-PRESERVING BED FOR SHIPS—G. K. Hooper, of Boston, Mass.: I claim my improved manufacture, or life-preserving spring pontoon bed, as made of a wooden frame or mattress, a series of pontoons and a series of springs, arranged and connected together, substantially as specified.

And I also claim the improvement of making each of the pontoons, B B, of less depth at its inner edge, than it is at its outer one, or that which is hinged to the frame, when the said pontoon is of such size as to project beneath the shoulder blades of a person, when reposing upon the matress, E, the object of so constructing said portion having been heretofore specified.

SECURING KEYS IN CONNECTING RODS, &c.—Geo. H. Coney, of Boston, Mass.: I claim the combination of a screw nut and a screw, divided longitudinally, as described, as a means by which to hold the key in its place.

AIR POWER MACHINE.—John Clark, of Cambridge Township, Pa.: That which I design to claim, as my particular invention, is the air-tight cylinder and bellows, of whatever material they may be made, for the purpose of obtaining a motive power from the expansion and contraction of the air, and to whatever use it may be applied.

[Here is an air engine which operates of itself, by the natural contraction and expansion of the atmosphere, without the assistance of fire or the consumption of any species of fuel. Verily, the problem of our old friend Ericsson is at last solved. He has been trying for years with a perseverance worthy of better luck than has so far attended him, to construct an air engine, which, at an expense of nothing or next to nothing, should give out a useful power. To be thus distanced—thus shorn of his laurels, after all his costly experiments, grandiloquent essays, and splendid failures, by an unpretending backwoodsman, is the very essence of misfortune. Alas! how mutable are all human events. But notwithstanding the issue of the above new patent, our opinion of air engines remains unchanged,—they are of no practical value.]

FOLDING AND MEASURING CLOTH—J. D. Elliot, of Leicester, Mass.: I claim, in connection with the pivoted vibrating blades, E E, the rod and swivel, for causing said blades to make a half revolution during each vibration, substantially as described

I also claim the friction bar or brake, C, in combination with the rolls, B D, for preventing the cloth, by the momentum of the blades, from paying off faster than it is folded, substantially as described.

CHARGER FOR FIRE-ARMS, &c.—Josee Johnson, of Washington, D. C.: I claim, first, the combination of the projecting ball, C, cylinder, A, and cut-off valve, E, arranged and combined in the manner and for the purposes described and set forth.

Second, I claim using clamp, B, in connection with the charger, for the purpose of facilitating the rapid completion of the process of loading fire-arms, as described.

HERNIAL TRUSSES.—Frances Grace Mitchell, M. D., of New York City: I do not claim the form or application of the pad.

But I claim the mechanical arrangement on the back of the pad, on the metal plate, which consists of a lever, which presses a steel spring into a longitudinal groove, formed in the center of the metal plate, on the back of the pad.

HOMINY MACHINES—Jonathan Nesbitt, Jr., and T. J. Cosley, of Clear Spring, Md.: We claim the construction of the beater, as set forth, the same consisting in a beater provided with four faces, two of which are plane or squared, and two provided with the inclined or screw like projections, in the manner and for the purposes described.

We claim, in combination with such beater, the two rows of spurs in its plane faces, as set forth.

ROTARY STEAM ENGINE—C. E. Off haus, of Newark, N. J.: I claim, first, the construction of the revolving piston in rotary engines, with piston valves, said piston valves being made to open and shut by the action of the steam, without any extra friction, against any part on the inside cylinder,

Second, I claim the arrangement of the openings and passages in the side plotes, E E', in connection with the grooves, v v', in the cylinder, forming a communication between the inner sides of the piston valves, and the steam and exhaust passages alternately, in the manner and for the Purpose as described.

Third, I claim the construction of the piston valves and frames, and the manner of changing the position of the same, when the motion of the engines requires to be reversed.

KNITTING MACHINES—Walter and Jonas B. Aiken, assignors to Herrick and James I. Aiken, of Franklin, N. H.: The general form and construction of the several parts of our machine are new, but we shall confine our claim to the most essential parts, as these cannot be materially varied in construction in the principles which govern their action, or in the nature of the results produced.

First, we claim the construction of the hollow circular nee lle plate, having grooves in its outer surface as described, for the object specified.

Second, we claim the loop regulator, as described, for the object specified.

EXTRACTING VEGETABLE OILS—Wm. Wilber, of New Orleans, La.: I claim a kettle for steaming or boiling and moistening crushed oleaginous seeds, into which steam is admitted, whilst it is surrounded by steam, so that the cooking and moistening be done by the direct and indirect action of steam, substantially as described.

SEED PLANTERS—Freeman Plummer and G. B. Rollins, of Manchester, Ind.—We claim links, r r, in combination with the adjustable rods, s' s, when constructed and arranged in the manner and for the purpose set forth.

CONICAL PLATE RAILROAD CAR SPRINGS—Jno. J. Speed, Jr., and J. A. Bailey, of Detroit, Mich.: We do not claim merely arranging springs, as such has before been done.

But we claim, in metal, conical or dish-shaped disk car springs, arranged in sets or pairs, one above the other, as described, providing the splitting of the edges of the disks by expansion, and effecting free unbroken compensation or lateral play, for the radial elongation of the fibers, when the spring is exposed to sudden or heavy compression, and insuring equality of elasticity all round, by making the disks with radial corrugations, and arranging them for operation together, substantially as specified.

[The disk springs, to which allusion is made in the above claim, are simply concave steel plates, resembling, in outward appearance, the saucers of common coffee cups. These disks are placed within a case or cylinder the lower disk resting, like a saucer, on the bottom of the cylinder; the disk next above is reversed or placed bottom up, its periphery resting on the periphery of the lower disk. In this manner the disks are arranged in pairs, above each other, a plunger being fitted to the top of the cylinder, on which the weight to be sustained rests. It is plain that the elasticity of the disks, thus arranged, will be considerable, and that they will yield more or less, according to the weight brought upon them.

Disk springs of this kind have long been known; they are peculiarly adaptable to car springs, for they occupy no more space than the round india rubber springs now in common use. But the trouble with the old-fashioned disk springs is, that, after being in use for a time, they split and flatten out, thus losing their elasticity and becoming worthless.

The improvement of Messrs. Speed and Bailey consists in corrugating the disks, instead of having them plain as heretofore. This invention adds new strength to the plates, and entirely obviates the serious objections we have just named. We regard the improvement as a capital one. We understand that it has been practically tested, with entire success. It is well worthy the attention of Railroad Superintendents.]

TREBLING A SINGLE THREAD—Anson A. Swift, assignor to himself and Samuel L. Hill, of Florence, Mass.: I do not claim the principle of trebling a thread or strand of silk, by enchaining loops formed therein; nor do I claim the combination of a stationary knob, an endless band, and two hitching heads or knobs (the same being movable,) fixed to said band at equal distances apart, such being the subject of the patent of Kelsea: but as I employ but two hitching heads only, and apply one of them and the strand bobbin in a frame, to have a reciprocating motion, as described, while the other, and the reeling mechanism, I arrange in a stationary frame.

I claim such an improved arrangement and combination of the hitching heads, movable and stationary frames, whereby I am not only enabled to dispense with an endless band and one hitching head, but employ a reciprocating frame, and thereby afford an attendant on the machine the advantage of being near the reeling mechanism as explained.

SAWING MARBLE—Jno. Cochrane, of Baltimore, Md.: I claim the hanging of two saws in one gate, at any required angle with each other, in combination with the angular guide, D and E, the slides, k l and m n, and the accommodation links, a b and c d, or their equivalents, for the purpose of sawing two inclined or tapering sides of a block of marble or stone, at one operation.

[This is the first patent granted in the great contest for the best marble sawing machine. Mr. Cochrane is either particularly lucky in obtaining this grant, or else he is very unlucky. His patent will have to run a long gauntlet of interferences, from which, if it escapes unscathed, he will be fortunate; but should it appear that some other inventor had discovered the same thing a day or two before him—of which there is a likelihood—then will he be unfortunate. The receipt of a patent is not always the guarantee of its continued possession. A subsequent applicant, if he produces evidence of prior invention, may, under our laws, cause the first patent to be annulled, and himself obtain the grant.

The issue of one solitary patent on marble saws this week, strikes us as a rather singular circumstance. It savors of unfairness somewhere. If our calculations are correct, there were, when Mr. Cochrane's document left Washington, between fifty and a hundred caveats and patent applications for marble saws on file in the archives of the Patent Office. Why his case should be singled out, and placed in advance of all others, seems a little strange. It is barely possible that, living within two hours ride of the Patent Office, and having promptly read the $10,000 offer, the inventor promptly made his model, promptly put in his application, obtained a prompt examination of his case, and a prompt grant of the patent—the whole business having been so promptly performed as to receive its finishing stroke before the eyes of other inventors were fairly opened. All this, we say, is barely possible, and yet it looks, upon its face, rather improbable. We make no charge, however, against the Patent Office, or any of its officers. With few exceptions, they are all high-minded gentlemen, who would not stoop to the performance of an unjustifiable action. But we cannot help thinking, that if the same degree of promptness had been exhibited towards othe applicants that appears to have attended the case of Mr. Cochrane, the list of patents granted this week would have been considerably larger than it is.

On the other hand, perhaps the examiners, finding the present case slightly in advance, and seeing a great rush behind, deemed it proper to issue this patent, so as to have a convenient reference before them on which to reject the remaining majority. This course would undoubtedly save the Office much labor, while it would in no way interfere with the ultimate rights of other inventors.

The device above patented is similar in general construction to about two-thirds of all the various plans for sawing marble that we have seen. It consists, if we understand it properly, of a horizontal saw gate, furnished at each end with a bar on which the saws slide laterally, in accordance to the movements of the gate; with adjustable guides for arranging the cutting angle. This principle, though apparently a very good one, involves considerable friction—more than other plans that we have examined. Which arrangement will turn out to be really the best, remains to be yet ascertained by trial.]

COTTON SEED HULLERS—Wm. Wilber, of New Orleans, La.: I claim the arrangement of the hopper, B, revolving toothed cylinders, D E, breast plate, F, crushing and grinding cylinder, G, concave bed, H, with removable extended bed plate, J, and toothed cylinder, L, revolving in its toothed case, K', in the manner and for the purpose set forth.

I also claim the series of graduated blasts, R T W, and screens, e f g h i j k, for the purpose of separating the oleaginous from the other impurities of the seeds, they being arranged and operating, substantially in the manner and for the purpose set forth.

CRIMPING PAPER FOR STICKING PINS—J. B. Terry, of Hartford, Conn.: I claim the use of the hinged clamps, b b', or equivalents operating together with the folding rod or former, g, to crimp the paper substantially as set forth.

OPERATING RECIPROCATING SAWS—O. S. Woodcock, of Connersville, Ind.: I claim attaching the lower end of the saw, B, directly to the upper end of the pitman, D, by a pin, e, which forms a joint connection, the pitman working on a suitable fulcrum or bearing, d, below the pin, e, substantially as shown, for the purpose specified.

[In this improvement the saw is hung in a reciprocating gate, in the usual manner, except that the lower end of the saw, instead of being attached to the cross piece of the gate frame, is fastened to a small block, which is pivoted to the cross piece. The pitman, instead of being attached directly to the cross piece, is fastened to the pivoted block, so that when the pitman passes its crank centers, it will turn the block a little, and carry the lower end of the saw in and out from the stuff which is being cut. When the saw comes down, it will be carried in on a slight angle against the stuff; when it rises it will be correspondently carried out. This alternate carrying in of the lower end of the saw during its descent, and its move out, during the rise, are important advantages; the manner in which they are obtained is simple, but quite ingenious. Saws thus hung will cut faster in descending with the same consumption of power than the ordinary saws, and they will also rise easier, since their teeth will not drag there will likewise be ample opportunity for the sawdust to escape. We regard the above as a very valuable patent.]

BEDS FOR SHINGLE MACHINES—H. J. Weston, of Buffalo, N. Y.: I do not claim the general principle of splitting off a piece from the block, thick enough to make two or more shingles, and then subdividing it. Neither do I claim the combination of two or more riving knives for that purpose.

But I claim making the yielding bed, R R', in two parts, and arranging those parts in the manner described and represented.

GRINDING COTTON AND OTHER SEED FOR THEIR OILS—Wm. Wilber, of New Orleans, La.: I claim the application of jets of steam for lubricating the surfaces of cylinders for grinding cotton seeds, to prevent their gumming up or being clogged by the ground material, substantially in the manner described.

DOUBLE ACTING FORCE PUMP—Thos. J. DeYampert, of Mobile, Ala.: I claim the system of crossed levers and connecting rods herein described, when placed and operated in the intermediate or central chamber, A, and when combined with two or more pistons, working in cylinders, which radiate from the central axis or fulcrum of said levers, substantially in the manner and for the purposes set forth.

[This is a very ingenious invention, whereby several pistons may be simultaneously operatd by one brake. It will be illustrated by engravings in a short time in this journal.]

HOROMETERS—Amos Abbott, of Manchester, N. H. Patented in England, Sept. 20, 1854: I do not claim the invention of any part of the apparatus connected with the instrument for the purpose of taking altitudes of objects, or of solving of problems in plane trigonometry; nor the tables on the back of the instrument; nor the projection of any of the lines as such.

But I claim an instrument upon which are delineated projections of latitude and longitude, within an arc of a circle, combined with the arm, O K, and scale, F G, or their equivalent, substantially in the manner described, for the purpose of solving useful problems in spherical trigonometry, as above mentioned, without the usual mathematical calculations.

I also claim the employment, in mathematical instruments, of magnetism, to keep a slide at right angles, or any given angle to a straight edge, and at the same time allowing it to slide freely upon the straight edge, substantially as set forth.

RE-ISSUES.

AIR HEATING STOVES—J. M. Thatcher, of Jersey City, N. J. Patented March 23, 1852,: I claim making the bottom plates of the flue spaces of air heating furnaces or stoves, for the passage of the products of combustion, outward or inward, among or around the air passages, inclining inward and downward towards the fire chamber, substantially as described, for the purpose of facilitating the increase of the heating surface, without the inconvenience of the accumulation of ashes, soot, and other solid matter, on such plates as set forth.

And I also claim the combination of the inverted domes or fustrums, F I M, described for the purpose of effecting the connection between the lower ends of the fire or draft flues, and carrying the air through them to the spaces between the cylinders or tubes.

GRAIN DRYERS—John Massey, of New York City. Patented April 17, 1849: I claim in the method of kiln drying grain, the employment of an endless pan or apron, made of metal, and passing around drums, or the equivalents thereof, substantially as specified, in combination with and operated within a heating chamber, substantially as set forth.

DESIGNS.

TABLE CASTERS—Edward Gleason, of Dorchester, Mass.: I claim the wreath on the circular projection, h, and the embellishments on the doors, B, and feet, C, when the whole are arranged and formed as herein shown to constitute an ornamental design for table casters.

[This is one of the best and most beautiful articles of its kind that we remember to have seen. The caster is made somewhat in the form of a miniature house, with octagonal sides. Each side is a door. If you turn the handle, all the doors open and bring out the casters, convenient and ready for use. Turn the handle again, and the doors all close, returning the casters within, out of sight.]

PARLOR GRATES—James Andrews, assignor to Andrews & Dixon, of Philadelphia, Pa.

STOVES—James. H. Conklin, of Peekskill, N. Y., assignor to S. B. Sexton, of Baltimore, Md.

Riehl's Patent Book Trimmer.

MESSRS. EDITORS—In your list of "Issued Patents" last week, there is an error, in the one obtained by M. Riehl, for trimming books. It reads, "M. Riehl, of Cincinnati, Ohio," It ought to be, "M. Riehl, of Philadelphia, Pa." Will you please make the correction.

HOWARD & RIEHL.

Philadelphia, Sept. 11, 1855.

[The official copy of the claims as published by us, located Mr. R. at Cincinnati.

The Most Magnificent Steamboat in the World

This steamboat, just remodeled, refitted, and set afloat on the waters of the Hudson, is the most superb and gigantic floating palace in the world. She has a length of 370 feet, and 48 of beam. Her engine has a cylinder 76 inches in diameter, with a stroke of 15 feet. Her wheels are 46 feet in diameter, and are unequalled in size by any steamship. With room to bed "and board" in voluptuous style one thousand people, she can carry upon her ample decks 250 tuns of freight. In good running order she can run at the average rate of *twenty miles* an hour. With this great speed those who read by her chandeliers will not experience interruption from the rattling of the glass drops, so firmly is she put together. Enormous as is her bulk and rapid her movement, the *New World* draws but 5 1-2 feet of water. She has 540 state-rooms, 30 family state rooms, 4 large club rooms, one elegant and spacious bridal chamber, two large ladies' dressing-rooms, and a noble fore-and-aft large saloon 120 feet long; the state-rooms are in three tiers. The great mass of this noble steamboat, when dashing through the water, has an effect upon the mind like witnessing the Falls of Niagara—that of admiration and awe. The fitting up of all the rooms is rich and tasteful beyond description. The elegance and costliness of the lace curtains, the rosewood and gilt furniture, the marble, the cut glass and porcelain, the numerous oil paintings of great merit and greater interest, we must pass by. Her appointments throughout are enough to make us proud of our country, which is acknowledged by all travelers to be a century ahead of any other for large, magnificent, and swift steamboats.

It was supposed by many that when the Hudson River Railroad was completed, it would greatly injure the steamboat business on the river; but the fact is otherwise. Never, in the whole history of New York, have the North River steamboats carried so much goods and so many passengers as during the present summer. All the large steamboats, which used to have their lower decks open and free, have had their decks stowed full of bales and boxes every trip, and oftentimes in the state-rooms not a single berth to be obtained at the hour of sailing. The steamboat business on the Hudson has largely increased, is increasing, and will continue to increase The owner of the *New World* is Isaac Newton, Esq., who deserves great credit for his taste, enterprise, and the noble spirit he has shown to improve the accommodations of travelers.

Newfoundland Dogs at Newfoundland.

A writer in the *New York Herald*, who was one of the excursionists on the late Telegraph expedition to Newfoundland, thus expatiates on the dogs of that uninviting country:

"Any one who has ever visited St. Johns must have observed the large number of Newfoundland dogs with which its streets are beset. You meet them wherever you turn; they lie across the pathway, and sometimes make their bed in the middle of the road; they stand like sentinels at every door, and although they never dispute your passage, they look at you with an inquiring gaze, as if they desired to know your business. In winter they are employed by the poor in drawing wood in sledges, for which they seem peculiarly adapted by their strength and docility. Dr. Kane took twenty of them with him on leaving St. Johns, as they are said to be as good, if not better, than the Esquimaux dogs, in making journeys over the ice. A perfect dog mania broke out among our company, and an extensive trade in pups was opened with the natives. Every person seemed determined to have one, and the consequence was, that we had about as many dogs on our return, as passengers. Dogs of all sizes and ages, from a month to three years old, were carried off unresisting victims into exile. Whatever doubt there might be as to the purity of the breed, there could be no dispute as to their being Newfoundland dogs, and with many, that seemed to be sufficient. Two of my friends bought a pair of them, twins, and named them Telegraph and Cable, in their enthusiasm for the great enterprise. The pure breed, it is said, is fast becoming extinct in St. Johns; but if I should judge from the large number of "full bloods" that were shown to me, I should be strongly inclined to doubt the truth of that statement.

Preventing Incrustations from Hard Water.

MESSRS. EDITORS—In the SCIENTIFIC AMERICAN of Sep. 1st, 1855, there is an article on "Incrustations and their remedy." At Mount Pleasant, Westmoreland County, Penn., there is hard or limestone water used in a double flue boiler, and the incrustation is prevented by simply boiling the water by the exhaust steam before it is used in the boiler. This has been in use here a number of years.

L. D. JOHNSTON.

Mount Pleasant, Sept. 11, 1855.