tions belonging to other countries. The annoyances of small exchanges would be reduced, if not entirely removed, and the loss by brokerage be avoided.

NEW PUBLICATIONS.

THE AMERICAN HOUSE CARPENTERS' AND JOINERS' ASSISTANT. By Lucius D. Gould, Architect.

This is the title of a large quarto volume, in which the science and practice of building wooden structures is fully treated. It is illustrated with forty-four lithographic plates, and gives directions not only about doing work, but upon the use of mathematical and drafting instruments. Valuable tables of the relative strength and other properties of materials, and other useful information make this a valuable *vade mecum* for the practical workman.

ATLANTIC MONTHLY.

The number for November is very excellent in every respect. The Publishers announce, for 1867, a Serial from Dr. O. W. Holmes, a series of articles from James Parton, and frequent papers from James Russell Lowell, in addition to their regular contributors. Ticknor & Fields, Boston.

ADDRESS ON PRESENTING TO JOHN ERICSSON THE RUMFORD MEDAL OF THE AMERICAN ACADEMY. By E. N. Hosford, late Rumford Professor in Harvard University.

We have received from the author a copy of this pamphlet which is valuable as giving a *resume* of the inventions and valuable discoveries of this distinguished engineer. It states that Ericsson built the first successful propeller having all its machinery below the water line—the *Francis B. Ogden*—which was rejected by the Lords of the Admiralty of England, on the ground that "it would be impossible to steer a vessel where the propelling power was so near the rudder." Mr. Ericsson came to this country, bringing the machinery of the *Robert F. Stockton*, and shortly after built for the Government the screw steamer *Princeton*. The idea of the monitor class of war vessels was conceived by Ericsson in 1854, when he submitted to the Emperor Napoleon a plan for such ships. Capt. Coles, of the English navy, dates his first idea in 1860. Capt. Ericsson is well known for his hot air engines, but his crowning glory is the total change in war ships, inaugurated by his celebrated *Minitor*. The pamphlet is published by Hurd & Houghton, Boston, Mass.

REPORT OF THE SECRETARY OF THE SMITHSONIAN INSTITUTION, January, 1866.

This Report we shall take occasion to employ hereafter in the elucidation of several subjects upon which it briefly treats. In the meantime we may state that it contains information of general interest on many matters of importance.

HUSSEY, WELLS & Co., of Pittsburgh, Pa.,

In reply to the ninth question of the U. S. Revenue Commission, have published a pamphlet consisting mainly of the certificates in favor of their cast steel. These are unanimous in praise of its evenness and excellent qualities.

LECTURES ON AGRICULTURAL CHEMISTRY. By Prof. S. W. Johnson, Yale College.

A series of four lectures, illustrated with cuts, and the facts exemplified and made practical by experiments. The subject of chemistry as applied to the tilling of the soil is treated in this pamphlet in Prof. Johnson's usual lucid and practical style. He has already done good service to the agriculturists of the country by his lectures, occasional addresses, and publications on this subject.

CURIOUS QUESTIONS. By Rev. Henry A Brann, D.D.

This is a work on mental and moral philosophy, valuable to the mechanician and the natural philosopher merely, or, at least, mainly, because it refers incidentally to the operation of natural laws.

WOODWARD'S ARCHITECTURE.

This neat volume is issued by Geo. E., and F. W. Woodward, at the office of the *Horticulturist*, 37 Park Row, New York. Many of our readers will recollect "Woodward's Country Homes," a valuable volume as a guide to the erection of rural homes. The present volume is the first of an annual series, intended to aid in the building of farm houses, villas, barns, ice houses, and other structures pertaining to country life, as well as to direct in laying out grounds in gardens, orchards, walks, drives, etc. It is profusely illustrated with plans and designs, and forms an attractive and readable volume to those who do not intend to follow its directions, as well as a valuable manual to all who make the country their home.

Inventions Patented in England by Americans.

Condensed from the "Journal of the Commissioners of Patents."]

PROVISIONAL PROTECTION FOR SIX MONTHS.

2,296.—SLIDE VALVE FOR STEAM ENGINE.—William B. Robinson Detroit, Mich., and Zoheth S Durfee, Philadelphia, Pa. Sept. 7, 1866.

2,298.—BEER AND ALE.—John Schneider, Williamsburgh, N. Y. Sept. 7, 1866.

2,306.—WATER-POWER ENGINE.—William Lonsdale and William Peete, New York City. Sept. 8, 1866.

2,316.—MANUFACTURING LEATHER.—George V. Sheffield and James F. Coburn, Hopkinton, Mass. Sept. 8, 1866.

2,319.—SEAMLESS METALLIC TUBE.—William F. Brooks, New York City. Sept. 10, 1866.

2,329.—ELECTRIC TELEGRAPH CONDUCTOR.—John M. Batchelder, Cambridge, Mass. Sept. 10, 1866.

2,358.—HORSE RAKE.—Daniel G. Adelsberger, Emmittsburg, Md. and Richard R. Riches, and Charles J. Watts, both of Norwich county of Norfolk, England. Sept. 14, 1866.

2,369.—BRAIDING MACHINE AND WARP REGULATOR.—William Tunstill, Paterson, N. J. Sept. 14, 1866.

2,403.—PRINTING MACHINE.—George Gordon, New York City. Sept. 19, 1866.

2,484.—BRONZING MACHINE.—John K. Lowe, Cleveland, Ohio. Sept. 26, 1866.

2,490.—CUTTING FILES.—Albert F. Johnson, Boston, Mass. Sept. 6, 1866.

ISSUED FROM THE U. S. PATENT OFFICE

FOR THE WEEK ENDING OCT. 23, 1866.

Reported Officially for the Scientific American.

☞ Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & Co., Publishers of the SCIENTIFIC AMERICAN, New York.

58,964.—SCREW.—John Absterdam, New York City.

I claim the above-described wood screw, with the plain cylindrical portion between the point and the threaded portion, substantially as and for the purposes set forth.

58,965.—GATE.—Henry Adams, Seattle, Washington Ter.

I claim a gate hung to its post by means of a hinge, E, which passes through a vertical slot, I, and is held to the gate by a nut, J, substantially as herein described and for the purpose specified.

58,966.—HOE.—Sherman W. Adams, Wethersfield, Conn.

First, I claim the combination of the blade, a, and handle, b, when constructed and operating substantially as herein shown and described.

Second, The hoe as above described and set forth as a new article of manufacture.

58,967.—FEED CUTTER. — William F. Altfather, Johnstown, Pa.

First, I claim the combination of the inclined or diamond-shaped knife sash, connecting rod or bar, I, and eccentric, F, with each other, and with the driving shaft, C, cutter frame, B, and box, A, substantially as herein shown and described.

Second, The combination of the jaws, P and S, bent levers, O and R, and pivoted cam lever, N, with each other, and with the cutter box, A, support, M, and eccentric, F, substantially as herein shown and described, and for the purpose set forth.

58,968.—MECHANISM FOR OPERATING THE HARNESS OF LOOMS.—William R. Andrews, Mystic River, Conn.

I claim the above specified new and useful harness-operating mechanism or combination, consisting of the tri-armed lever, D, the two cams, E F, the gears, c c, and racks, G H, the spring, I, and the rack-elevating mechanism, the whole being arranged together, and with a pattern chain and its actuating mechanism, substantially in manner and so as to operate as explained.

58,969. — INSTRUMENT FOR EXTRACTING CORKS FROM BOTTLES.—J. T. Ashley, Brooklyn, N. Y.

I claim the slide, F, in combination with the tongs, A, when arranged thereon, so as to operate substantially in the manner and for the purpose described.

58,970.—APPARATUS FOR MOVING BUILDINGS.—Egbert H. Avery, Belvidere, Ill.

I claim the guide keys, D, in combination with the trucks, C' C' B, substantially as set forth.

58,971.—BUTTER WORKER AND PACKER.—Charles F. Barager, Candor, N. Y.

I claim the arrangement of the bowl, B, vessel, I, and slotted lever, D, with the universal joint, E F, and stop pins, d' e, said lever, D, being adapted to admit of the attachment of the ladle, C, and packer, J, and the whole operating substantially as described.

58,972.—PUMP.—A. B. Barlow, Ripon, Wis.

I claim the method substantially as above described of packing the lower joints of the cylinder and said chamber by means of a bottom piece, I, and annular flange or cap, N, and the packing material, a a, secured by them by the aid of a surrounding flange, N', substantially as described.

58,973.—CORN PLOW.—Peter Barnhart, Chillicothe, Ohio.

I claim the adjustable fender, F, and beam, A, in combination with the standards, B B, for the purposes and substantially as described.

58,974.—STRAW CUTTER.—John W. Bartlett, Harmar, Ohio. Antedated October 12, 1866.

First, I claim the arrangement of the fly wheel, fly wheel shaft with two cranks, knife, C, oscillating arm, D, and standard and guide, F, substantially as set forth.

Second, I claim the combination of the crank, g, attached to the end of the fly wheel shaft, the lever, P, and the bent pawl lever, H, with the ratchet wheel and feed rollers, substantially as set forth.

Third, I claim the pawl holder and guide, I, constructed and connected together as set forth.

Fourth, I claim the hinged board, O', with its shaft, P', in combination with the bent spring, S', substantially as and for the purpose set forth.

58,975.—COMPOSITION FOR ROOFING.—F. Bearse and G. E. Hopkins, Barnstable, Mass.

We claim therefor the composition as made of the acid and other ingredients, substantially as hereinbefore set forth.

58,976.—CHURN.—M. Bratt, Maysville, Ky.

First, I claim the combination of the hollow tube, E, having the valve, c', at its upper end, and with the hollow dasher handle, D, having a valve, d', at its upper end, and with the bottom, a', of the churn, A, substantially as herein described and for the purpose set forth.

Second, The combination of the guide rod or plunger, F, with the hollow dasher handle, D, having a valve, d', at its upper end, and with the bottom, a', of the churn, A, substantially as herein described and for the purpose set forth.

58,977.—GRINDING MILL.—Charles P. Benoit, Detroit, Mich.

I claim the machine for crushing grain consisting of the longitudinally grooved roller, B, and the transversely grooved cylinder, C, arranged to operate substantially as described for the purpose specified.

58,978.—CREASING, SLICKING, AND SKIVING LEATHER.—C. C. Bellows, New Ipswich, N. H.

I claim, First, The combination of the slotted standards, B, slotted triple-armed lever, E, springs, I, and rod, G, arranged to operate with the roller, D, when constructed and applied in the manner and for the purpose specified.

Second, The plate, J, having skiving knives, d, attached to or formed on it, and applied to the upper roller, C, by means of the bars or clamp frame, substantially as and for the purpose described.

Third, The laterally-adjustable creasing wheel, F, on the upper roller shaft, operating with the flanged roller, G, substantially as described for the purpose specified.

58,979.—PIANO STOOL.—Joshua Briggs, Peterboro, N. H.

I claim combining with the pillar, c, the spindle and when made with a wood screw cut upon its outer surface for securing it permanently to the pillar, substantially as described.

I also claim the combination of the pillar, c, base, a, and bolt, i, when the pillar is constructed to receive the bolt through the tube in which the screw spindle plays, and with a seat for the head of the bolt at the bottom of said tube, substantially as set forth.

58,980.—STEAM-ENGINE SLIDE VALVE.—Richard C. Bristol, St. Clair, Mich.

I claim, in connection with a slide valve, the within-described arrangement of rollers, C, mounted concentrically upon the cross bars, C', and between the longitudinal bars, C2 C2, and arranged to operate relatively to the valve, and to the cylinder face, and to the steam chest, substantially as and for the purposes herein specified.

58,981.—AMALGAMATOR.—Edmund Brown, Chicago, Ill.

I claim, First, The revolving and stationary shaft, with apertures and flange for crowding the quartz out into the lead.

Second, The series of combs attached to the revolving shaft and sides of the kettle, the whole combined and arranged for the purpose specified.

58,982.—WINDOW SCREEN.—Edward Bucklin, Jr., and Sedgwick A. Sutton, North Providence, R. I.

We claim attaching the screen directly to two supporting rails, D and D', in such manner that the width of the screen may be increased or diminished in the same proportion as the lengths of the rails, as and for the purpose described.

58,983.—FARM GATE.—John A. Cheatham, Nashville, Tenn.

I claim, First, The combination of the lever or levers, A A, with the vertical spindle, E, controlling the gate and its latch, with the cam-shaped piece, O, or its equivalent, substantially as and for the purposes set forth.

Second, The combination of the lever or levers, A A, and the spindle, E, with the upper disk, L, the trigger, K, and latch, J, substantially as and for the purpose described.

58,984.—LADDER.—C. Ckertizza, New York City.

I claim the combination of sides so sloping that the narrow end of one sectional ladder fits within the wider end of any other, with the slots, d d' and c c', and the bars, b b and b' b', substantially as described and for the purpose set forth.

58,985.—FAN BLOWER.—Patrick Clark, Rahway, N. J.

I claim, First, The diaphragms, C C, when used in combination with a compound fan blower.

Second, The fan wheel, F F, when constructed with fans or vanes of the form and arrangement with respect to each other as described.

Third, Attaching each fan or vane at its ends to two adjacent arms, as described.

Fourth, The leather packing, D D, when combined with the diaphragms, C C, as described.

58,986.—CORN SHELLER.—William Colwell, Chillicothe, Ill.

I claim, in combination with the cone, B, shaft, C, and hopper, F, the fan, N, and elevator, U, for the purposes and substantially as herein set forth.

58,987.—SAFETY VALVE.—D. G. Coppin and G. H. Clemens, Cincinnati, Ohio.

We claim, First, The valve, C, and tube, m, constructed as above described and for the purpose set forth.

Second, The valve, C, levers, l, weights, D and D', arranged as above described and for the purpose set forth.

Third, The valve, C, levers, l, weights, D and D', tube, m, in combination with annular ring, f, casing, B, sleeve, n, and cap, o for the purpose above described and set forth.

58,988.—CORN PLANTER.—W. H. Cox, Virden, Ill.

First, I claim the perforated, horizontal, revolving plates, m m, in the hoppers, D D, for feeding and dropping the grains of corn evenly in combination therewith, and with the bevel gear wheels, h i, and the pulleys, b d, connected with and deriving their motion from one of the driving wheels, C, constructed and arranged substantially as and for the purposes herein described.

Second, I claim the thimble, a, within the hub of the driving wheel, C, for carrying the pulley, b, in combination therewith, and with the stationary axle, B, constructed and operating substantially as and for the purposes herein specified.

Third, I claim the arrangement of the slide pieces, f f, hung upon the axle, B, for supporting the hoppers, D D, and raising and lowering at pleasure with the lever, F, substantially as herein described.

Fourth, I claim the slide piece, G, with the push and pull pawl, O O', for working the seed-dropping apparatus by hand when adjusted for planting corn in hills, in combination with the revolving perforated plates, m m, to which they impart an intermittent motion, arranged and operating substantially as herein described

58,989.—MACHINE FOR STRIPPING THE TOP FLATS OF CARDING ENGINES.—S. L. Crockett and Benjamin S. Mills, Lowell, Mass.

We claim the employment of the lifting and replacing cam formed substantially as herein set forth and shown, and arranged to operate in the manner and for the purpose specified.

And in combination with the lifting and replacing cam, formed and made to operate as herein set forth, the two pins, 1 and 2, in the slide, h, acted upon by the cam, in the manner and for the purpose specified.

58,990.—HARDENING SPRINGS.—George G. Crowell, Lime Rock, Conn.

I claim the employment of glue, or equivalent glutinous animal matter, either alone or in combination with other material, as a hardening compound, when employed substantially in the manner and for the purpose herein set forth.

58,991.—TABLE AND HOLDER FOR SHEARING SHEEP.—A. M. Culver, Bedford, Ohio.

I claim the table, B, arms, C C', pawl and ratchet, a b, and shackle, D, constructed and arranged as and for the purpose specified.

58,992.—KNIFE CARRIER.—Porter E. Cummings, Sanford, Me.

I claim the improved knife carrier, made substantially as described, viz: with the knife-shank socket, and the rebate arranged in it, as set forth, the said carrier being provided with a set screw, or equivalent means of fixing the knife shank in the socket.

58,993.—HAND SEED SOWER.—Obed Dann, Janesville, Wis.

I claim, First, The combination of the box, A, and slide, E, when constructed, arranged, and used substantially as and for the purpose set forth.

Second, The combination of the box, A, cap, B, and handle, C, when constructed, arranged, and used substantially as and for the purpose set forth.

Third, The combination of the box, A, slide, E, cap, B, and handle, C, when constructed, arranged, and used substantially as and for the purpose set forth.

58,994.—BED BOTTOM.—Garret B. Davis and Chas. B. Davis, Freeport, Ill.

We claim the strengthening rods or girders, E E, in combination with the bow-shaped cross pieces, C C, and elastic bands, D, substantially as specified.

58,995.—TABLE.—Ernest Dinter, Boston, Mass.

I claim the improved table stand as having two parts, a b, constructed with receiving slots, arranged in them so as to enable them to be applied together, substantially as set forth.

58,996.—STEAM-ENGINE GOVERNOR.—E. C. Edmonds, Buffalo, N. Y.

I claim the combination of the adjustable clutches, t t', with the slip shaft, G, loose pinions, h h', bevel wheel, K, and spindle, C, for producing an intermittent motion to the valve-operating mechanism, substantially in the manner set forth.

I also claim, in combination with the above, the screw valve