

to the bar, E, to hold the paper to the carriage, and press it down smooth and tight, in passing under the plate, when made substantially as described.

5th, The spools, m, combined with the ends on s, the shaft, h, the pulleys, k and r, the band, v, the cord, w, the weight, w, the ratchet, wheel, v, the pawl, and the bar, p, pivoted to the back of the case, A, to feed a ribbon made substantially as described.

79,266.—PISTON LEVEL.—J. D. Sibley, Middletown, Conn. I claim the combination of the revolving sighted level with the disk, A, when arranged and operating as herein described, and for the purposes set forth.

79,267.—CAR TRACK.—Sidney Skillman, Jersey city, N. J.—Ante-dated June 16, 1868. I claim, 1st, The swiveling of the truck on a centre coincident with the centre of the boiler, by means of the swiveling ring, B, arranged substantially as herein described.

79,268.—ELECTRIC FUSE.—H. Julius Smith, Boston, Mass. I claim an electric fuse, in which the end of a single insulating cord, containing two insulated wires, is introduced directly into the cap containing the fulminate to be fired, in the manner described.

79,270.—AUTOMATIC DENTAL PLUGGING INSTRUMENT.—George B. Snow and Theodore G. Lewis, Buffalo, N. Y. We claim a plugging instrument, having all its automatic operating parts contained within the case forming the handle of the instrument, substantially as described.

79,271.—TRANSMITTING SIGNALS.—P. A. Sparre, Stockholm, Sweden. I claim, 1st, The disk, d, in combination with the stop, e, stand, f, and bolt, g, as described.

79,272.—INSTRUMENT FOR ADDING AND REGISTERING NUMBERS.—Nelson Spofford and Charles Corliss (assignors to Charles Corliss), Haverhill, Mass. We claim a graduated sliding spring bar, b, when applied and operating substantially in the manner and for the purpose set forth.

79,273.—SLED.—Edward L. Stevens (assignor to Isaac Baker), Moulton, Me. I claim, 1st, The slotted bar, G, in combination with the spring, D, when constructed and operating substantially as and for the purposes described.

79,274.—RECIPROCATING STEAM ENGINE.—David Stoddart, St. Francis, Cal. I claim, 1st, The arrangement of the pistons, B1 B2, small pistons D1 D2, valve, C, and the passages, H1 H2, communicating to the cylinder, substantially as described.

79,275.—BASE-BURNING FIREPLACE STOVES.—David Stuart and Lewis Bridge (assignors to Stuart, Peterson & Co., Philadelphia, Pa.) We claim, 1st, The base of the stove, enclosing the passages, E, F and G, arranged and communicating with the pipes, P and P', substantially as described.

79,276.—REAPER.—Edward Sullivan, Pittsburg, Pa., Ante-dated June 6, 1868. I claim the combination and arrangements of the cutters and blank head, C, collar, e, sleeve, D, cone, f, rod, A, and the cutters and blanks, the whole being constructed, arranged, combined, and operated substantially as herein described, and for the purpose set forth.

79,277.—LAMP CHIMNEY.—Michael Sweeney, Wheeling, W. Va. I claim, as a new article of manufacture a lamp chimney, constructed with a oval lens formed projection, B, on the sides, substantially as set forth.

79,278.—HAT.—B. B. Taggart and C. W. Brown, Watertown, N. Y. We claim, as a new article of manufacture, a hat or bonnet body, molded or pressed from a continuous sheet of formed paper, substantially as and for the purposes herein shown and specified.

79,279.—LUBRICATOR.—Hiram Taylor, Cincinnati, Ohio. I claim, 1st, A metallic band or collar, I, cast around and within the neck of the reservoir, G, for the purpose of attaching the supporting stem, E, thereto, as specified.

79,280.—COMBINED LAND ROLLER, FERTILIZER, AND SEED SOWER.—L. D. Taylor, Granville Centre, Pa. I claim the combination of the front and rear hoppers, I, I, and their respective plates, K, K, pulleys, P, P, rollers, M, M, and cylinders, A, A, all constructed and operating substantially as specified.

79,281.—BRAKE FOR HORSE POWER MACHINES.—Daniel G. Terrell, Wakefield, Pa. I claim the arrangement in horse powers, of the mechanism herein described, when by the break will be self acting when the belt breaks or flies off, and also serves the purpose of a hand brake, to stop the machine when the belt is on in running order, substantially as and for the purposes herein set forth.

79,282.—HORSE POWER.—Daniel J. Tittle, (assignor to Albi M. Tittle, Albany, N. Y.) I claim, 1st, The endless thread composed of the pieces, e, e, and furnished with the links f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z, and all in combination with the said tread pieces, e, e, substantially as and for the purpose set forth and described.

79,283.—CAR COUPLING.—E. R. Whitney, Plattsburg, N. Y. I claim the arrangement of a four armed cross or wheel, B, dog or lever, C, with spring, D, pawl, E, handle, F, and notch, a, all made and arranged in the coupling box, A, and operating substantially as and for the purposes above set forth.

79,284.—HORSE RAKE.—Frank Wicks, Upper Sandusky, O. I claim, 1st, The runners, E, E, constructed substantially as described with the curved part extending from the front extremity to the rear of the line of the points of the teeth, F, F, for the purpose set forth.

79,285.—SPRING BED BOTTOM.—Niel J. Willis, (assignor to the Boston Spring Bed Company), Boston, Mass. I claim the improved spring bed bottom, as composed of the frame, B, the two round bars, A, the two series of springs, C, (of the kind described), and the series of slats, D, arranged and applied together substantially as described.

79,286.—CHERRY PRESS.—Putnam Wilson, Newport, assignor to R. M. Mansur, Augusta, Me. I claim the mechanism and arrangement of the levers, E, E, uprights, D, D, movable bottom, B, upright standard, F, and follower, G, all operated by the rope, I, drum, J, and lever, K, substantially as herein set forth.

79,287.—TAG.—George F. Wright and William Orr, Jr., Clinton, Mass. Ante-dated June 5, 1868. I claim the use of a circular or otherwise shaped piece of pastboard, or its equivalent, when inserted between the two thicknesses of the tag or label

around which the string, or its equivalent, is looped, in the manner substantially as herein shown and described.

79,288.—LINE HOLDER.—John Hartzell Zinn, Harrisburg, assignor to himself and T. B. Weakley, Dauphin County, Pa. I claim the arrangement of the lever, D, with central arm, a, pivoted on the frame, A, and arm, C, in connection with the arch shaped flange, B, all made of iron, brass, or other suitable material, for the holding of rope or wire substantially as and for the purpose set forth.

79,289.—APPARATUS FOR MOTIVE POWER.—S. G. Monce, Marathon, Ohio. I claim a combination of the verge, g, arm or lever, i, connecting rod, k, and fly wheel, o, all as shown and described.

79,290.—CARBURETER.—Charles Benjamin Willoughby, (assignor to himself and W. A. Boye, Urickville, Ohio. I claim, 1st, The combination of the oil tank, B, gas chamber, D, pipes and valve, d, all as shown and described, and for the purpose specified.

79,291.—BRECH LOADING FIRE ARM.—William Morgenstern, Hartford, Conn., assignor to Herman Funke. I claim, 1st, In combination with a hinged breech block, the firing pin, main spring, and sear, arranged within said block, substantially as described for the purpose set forth.

79,292.—FRUIT PICKER.—James H. Lament and D. A. Lament, Troy, Pa. We claim the combination, in a fruit picker, of the vessel, A, and fingers, a, a, a, all substantially as shown and described.

REISSUES.

2,996.—HARVESTER RAKE.—C. Aultman, Canton, Ohio, assignee of Daniel E. Swartz and Jonathan Kremer, Millheim, Pa. Dated May 12, 1868. I claim, 1st, The combination of a main frame, supported upon two wheels, laterally projecting platform and cutting apparatus which shall be in advance of the main axle, with the support of a series of combined rake and reel arms, rigidly connected with the finger bar.

2,997.—GRASS HARVESTER.—Jonathan Haines, Pekin, Ill., assignee by mesne assignments of himself, Division B. Dated September 4, 1855; reissue 545, dated April 13, 1858. I claim, 1st, In combination with a laterally projecting finger beam, end of which is provided with open slotted guard fingers, through which and across said fingers the cutters are reciprocated in straight lines, a connecting rod or brace bar, m, having one end connected with and joined to the heel of said finger beam, and its other end flexibly connected with the main frame of the machine, for the purpose of controlling the lateral movements of the finger beam, so that the cutters and guard fingers will be kept in unison with each other throughout the up and down movement of said finger beam, independent of the main frame, substantially as set forth.

2,998.—GRASS HARVESTER.—Jonathan Haines, Pekin, Ill., assignee by mesne assignments of himself. Dated Sept. 4, 1855. Reissue 545. Dated April 13, 1858. Division C. I claim flexibly connecting a laterally projecting cutting apparatus which has its cutters reciprocated in straight lines through open-slotted guard fingers to the main frame of a mowing machine, substantially as set forth.

2,999.—HARVESTER RAKE.—Samuel Johnston, Syracuse, N. Y., assignee of Wm. T. Shaw and John Manz, Wilmington, Del. Dated Nov. 22, 1864. We claim, 1st, The combination of a main frame supported on two wheels, a laterally projecting platform end cutting apparatus, so hinged to the main frame that the cutting apparatus shall be in advance of the main axle, with a series of combined rake and reel arms revolving on a support mounted on the platform.

2,999.—HARVESTER RAKE.—Samuel Johnston, Syracuse, N. Y., assignee of Wm. T. Shaw and John Manz, Wilmington, Del. Dated Nov. 22, 1864. We claim, 1st, The combination of a main frame supported on two wheels, a laterally projecting platform and cutting apparatus, so hinged to the main frame that the cutting apparatus shall be in advance of the main axle, with a series of combined rake and reel arms revolving on a support mounted on the platform.

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3,004.—IMPROVEMENT IN PIANO-FORTES.—G. C. Manner, New York city. Dated November 13, 1866. I claim 1st, Placing the damp-lifters in a slot of the metal frame behind the point supporting the strings, substantially as and for the purpose described.

3,005.—BIT BRACE.—Greenleaf Stackpole, New York city, and J. N. Winslow, Portland, Me., assignees of Greenleaf Stackpole. Dated September 23, 1862. I claim 1st, In combination with a divided bit-shank socket, having a contracted neck, the ring, E, for holding the bearings upon the shank of the bit, constructed and operating substantially as set forth.

3,006.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,007.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,008.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,009.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,010.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,011.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,012.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,013.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,014.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,015.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,016.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,017.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,018.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,019.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,020.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,021.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,022.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,023.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,024.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,025.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,026.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,027.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,028.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,029.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

3,030.—HARVESTER.—Mitchell, Vance & Co., (assignees of Edgar M. Smith) New York city. Dated February 23, 1864. I claim 1st, In combination with the main driving and supporting wheels, running loosely on their axes or journals, the main rear wheels, D, running loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented on the drawings.

PATENTS.



The First Inquiry that presents itself to one who has made any improvement or discovery is: "Can I obtain a Patent?" A positive answer can only be had by presenting a complete application for a Patent to the Commissioner of Patents. An applicant on contracts of Model, Drawings, Petition, Oath, and full Specification. Various official rules and formalities must also be observed. The efforts of the inventor to do all this business himself are generally without success. After a season of great perplexity and delay, he usually glad to seek the aid of persons experienced in patent business, and have all the work done over again. The best plan is to solicit proper advice at the beginning. If the parties consulted are honorable men, the inventor may safely confide his ideas to them; they will advise whether the improvement is probably patentable, and will give him all the directions needful to protect his rights.

Messrs. MUNN & CO., in connection with the publication of the SCIENTIFIC AMERICAN, have been actively engaged in the business of obtaining patents for over twenty years—nearly a quarter of a century. Over Fifty Thousand inventors have had benefit from our counsels. More than one third of all patents granted are obtained by this firm.

Those who have made an invention and desire to consult with us are cordially invited to do so. We shall be happy to see them in person, at our office or to advise them by letter. In all cases they may expect from us an honest opinion. For such consultations, opinion, and advice, we make no charge. A pen-and-ink sketch, and a description of the invention should be sent, together with stamps for return postage. Write plainly, do not use pencil nor pale ink; be brief.

Business committed to our care, and all consultations are kept by us secret and strictly confidential. Address MUNN & CO., 37 Park Row, New York.

Preliminary Examination.—In order to obtain a Preliminary Examination, make out a written description of the invention in your own words, and a rough pencil or pen-and-ink sketch. Send these with the fee of \$5 by mail, addressed to MUNN & CO., 37 Park Row, and in due time you will receive an acknowledgment thereof, followed by a written report in regard to the patentability of your improvement. The Preliminary Examination consists of a special search, which we make with great care, among the models and patents at Washington, to ascertain whether the improvement presented is patentable.

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The model should be neatly made of any suitable material, strongly fastened, without glue, and neatly painted. The name of the inventor should be engraved or painted upon it. When the invention consists of an improvement upon some other machine, a full working model of the whole machine will not be necessary. But the model must be sufficiently perfect to show, with clearness, the nature and operation of the improvement.

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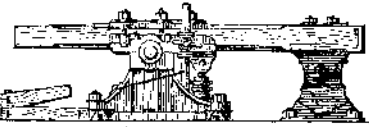
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