

directly connected therewith, of a piston receiving steam from the valve-chest, and adjustable leverage connections located outside the valve-chest and arranged to connect the outer ends of the piston rod and lighting stem. 2nd. In combination with a slide-valve and lifting stem indirectly connected therewith, a piston adjustably connected with the lifting stem by means of lever bearings and the movable rest G<sub>1</sub>. 3rd. The combination, with a slide-valve and lifting stem indirectly connected therewith, of a piston connected with the lifting stem and a spring H. 4th. The combination, with the valve-chest, the bearing surface C E and rollers D, of the valve B lifting stem E<sub>1</sub>, levers E<sub>2</sub> G, slide bearing G<sub>1</sub>, auxiliary steam cylinder F<sub>2</sub> and piston F.

**No. 11,385. Improvements on Oil Cans.** (*Perfectionnements aux bidons à huile.*)

Henry C. Bradley, (Assignee of James D. Pierce,) Milwaukee, Wis., U.S., 15th June, 1880; for 5 years.

*Claim*—The combination of a can having, near the bottom thereof, a faucet consisting of a horizontal tube F with an orifice G, of a pipe H with an arm sleeved on tube F, a case having a vertical opening in one side thereof, and a door for covering the same, the pipe H being adapted to have rotary motion about the tube F, and in a vertical plane, through the opening in the case.

**No. 11,386. Improvements on Machines for Cleaning Bran.** (*Perfectionnements aux machines à nettoyer le son.*)

Jonathan Mills, Chicago, Ill., U.S., 15th June, 1880; for 5 years.

*Claim*—1st. The combination of the stationary disk *u* or *l*, bearing a series of concentric slotted partitions herein formed of the pins *b* or *b<sub>1</sub>*, with the revolving disc or arms *R* provided with oblique wings formed of the pins *o* or *o<sub>1</sub>*. 2nd. In combination with the stationary circular slotted partitions and the central feed opening or eye *E*, the revolving disc *l* provided with the solid wings *W* set eccentric to the disc. 3rd. A double bran machine having stationary concentric slotted partitions or pins *b* or *b<sub>1</sub>* and arms *R*, rotating between said partitions and bearing oblique wings or rows of pins *a*, the connecting parts *w* forming adjacent arms and arranged to close the space between the opposite concentric partitions or circles of pins.

**No. 11,387. Machine for Degerminating and Reducing Wheat.** (*Machine pour enlever le germe du blé et le triturer.*)

Jonathan Mills, Chicago, Ill., U.S., 15th June, 1880; for 5 years.

*Claim*—1st. The disc *H H<sub>1</sub>*, of hard homogeneous material of close texture, having rounded marginal corrugations *m* and smoothly finished or polished surfaces. 2nd. The discs *H H<sub>1</sub>*, of solid homogeneous material, capable of receiving a smooth or polished surface and having rounded marginal corrugations and a depressed central bosom in one or both of said discs. 3rd. The discs *H H<sub>1</sub>*, having in one or both a depressed central bosom surrounded by marginal rounded corrugations *m* and leaders *n*, and the whole surface smoothly polished. 4th. The discs *H H<sub>1</sub>*, of hard material, capable of receiving a smoothly polished surface and having in one or both a central depressed bosom with leaders *n*, and having marginal rounded corrugations, the lower of said discs being the runner and the upper of said discs being fixed and provided with a central feed.

**No. 11,388. Device for Measuring and Cutting Garments.** (*Appareil pour mesurer et tailler les vêtements.*)

Sarah J. Smith, Montreal, Que., 15th June, 1880; for 5 years.

*Claim*—1st. A scale or table adapted for giving on inspection the points and lines necessary for shaping and cutting garments for any given size of chest and waist, and with reference to base-lines at right angles to each other, said base-lines representing respectively the middle line of the garment and top of neck. 2nd. A rule graduated with divisions and figures, to show the width from centre-lines to back and front waist seams respectively, said division and figures being arranged and calculated to correspond identically with the actual total width of waist. 3rd. The combination of the rule and scale or table, the rule being provided in addition to its scales with suitable curves.

**No. 11,389. Improvements in Shoes.** (*Perfectionnements dans les souliers.*)

Guillaume Boivin, Montreal, Que., 15th June, 1880; for 5 years.

*Résumé*—1o. La taille d'une empeigne de soulier d'un seul morceau A, presque sans perte de matériel et fourrissant un rabat pour y passer des attaches libres qui entourent l'ouverture du soulier et viennent se serrer solidement sur le cou-de-pied sans déformer cette chaussure. 2o. Le bourrelet *e*, qui protège le cou-de-pied sans nuire à la solidité de la chaussure. 3o. La combinaison de l'empeigne A, son rabas, ses attaches avec le bourrelet *e*.

**No. 11,390. Improvements on Hinges.** (*Perfectionnements aux pentures.*)

Jean B. Parent, Quebec, Que., 15th June, 1880; for 5 years.

*Résumé*—1o. Le ressort en spirale B. 2o. La combinaison de ce ressort avec la double tête A A qui se termine en jumelle, à l'intérieure. 3o. La combinaison du rivet F, avec le ressort dont il détermine la force.

**No. 11,391. Improvements in Reaping Machines.** (*Perfectionnements aux moissonneuses.*)

Abraham C. Scarr, Maryborough, Ont., 15th June, 1880; for 5 years.

*Claim*—A grain lifting and saving appliance for attaching to reaping machines, and consisting mainly of the hook C, arm D, slot *a*, tail *h* and bolt *b*.

**No. 11,392. Improvements in Feed Steamers.** (*Perfectionnements aux appareils de cuisine à la vapeur.*)

Mortimer B. Mills and Charles B. Rice, Chicago, Ill., U.S., 15th June, 1880; for 5 years.

*Claim*—The water cylinder *b* in connection or combination with the steam chest *a*.

**No. 11,393. Improvements on Car Trucks.** (*Perfectionnements aux trains des chars.*)

Sandford Keeler, East Saginaw, Mich., and William Watson, Chicago, Ill., U.S., 15th June for 5 years.

*Claim*—1st. The combination of the beams G G<sub>1</sub> connecting bars I I and springs F F<sub>1</sub>, with the axle boxes D D<sub>1</sub> and frame of a railroad car. 2nd. The combination of the frame of a car and the axles and axle boxes of the same, with springs interposed directly between the boxes of one axle and side bearings, at one end of the car frame, and a spring frame interposed between the boxes of the other axle and central longitudinal bearings, at that end of the car frame.

**No. 11,394. Improvements on Flax Scutching Machines.** (*Perfectionnements aux machines à teiller le lin.*)

Samuel S. Fuller, (Assignee of William Keane,) Stratford, Ont., 15th June, 1880; (Re-issue of Patent No. 9,464.)

*Claim*—1st. A grated or perforated trough C, or its equivalent, arranged in combination with a scutching machine. 2nd. A vertical grating D, in combination with the revolving beaters or knives A and scutching board B. 3rd. The grated or perforated trough C, or its equivalent, and grating D, in combination with the revolving beaters A and scutching board B. 4th. The grated or perforated trough C, or its equivalent, in combination with the revolving knives or beaters A and opening E.

**No. 11,395. Matting Roller.** (*Rouleau de nattes.*)

George H. Longmore, Portland, N. B., 16th June, 1880; (Extension of Patent No. 4,866.)

**No. 11,396. Machine for Discharging and Conveying Grain.** (*Machine à décharger et transporter le grain.*)

Henry D. Stover, New York, U. S., 19th June, 1880; for 5 years.

*Claim*—1st. In combination with an exhaust fan A, cutters B and induction pipe D, the partition *d* with point or apex *d<sub>1</sub>*. 2nd. In combination with an exhaust fan A, cutters B, feed rolls C and induction pipe D, the flat valves *e* *e<sub>1</sub>*. 3rd. In combination with an exhaust fan blower N, the tapering induction pipe D enlarged at its mouth next the fan, its lower half being inclined and set at such an angle as will permit a feed of its contents by gravity. 4th. In combination with an exhaust fan blower N, the pipe E with branches E<sub>1</sub> and F controlled by suitable valves *e* *e<sub>1</sub>*. 5th. The combination of the exhaust fan, blowers N O, with the conveyors E M, the latter being provided with suitable branch pipes and valves. 6th. In combination with exhaust fans or blowers, the conducting pipe or pipes lined wholly or partly with glass, porcelain or other smooth faced hard material, or wholly or partly composed of said material. 7th. In combination with the exhaust fan blower N, fans A, cutters B, feed rolls C and tapering glass lined, induction pipe D, the conveying pipe E with branches E<sub>1</sub> F, auxiliary fan blower O, and pipe M with branches M M.

**No. 11,397. Improvement in Cant Hand Spikes.** (*Perfectionnement aux renards.*)

Alex. Hunter, Carleton Place, Ont., 19th June, 1880; for 5 years.

*Claim*—1st. The solid metallic sleeve or socket D, having formed on it the lugs *b* *b*. 2nd. The combination of the handle A, point B, grab hook C and sleeve or socket D having the lugs *b* *b*.

**No. 11,398. Improvements in Hay Rakes.**

(*Perfectionnements aux râteliers à foin.*)

John Moody, Terrebonne, Que., 19th June, 1880; for 5 years.

*Claim*—1st. In the combination, with the swinging bar or bars carrying the teeth, of a curved arm secured thereto, and a pivoted lever locking said arm in place.

**No. 11,399. Improvement in Wood Polishing Machines.** (*Perfectionnement dans les machines à polir le bois.*)

Almon Bridgeman, James L. Perry and Charles A. Mather, Berlin, Wis., U.S., 19th June, 1880; for 5 years.

*Claim*—1st. The combination, with the frame A and the endwise movable polishing roller B, journaled therein and having the pulley *a* and grooved collar *o*, of the shaft C, having the pulley *a* and the endless belt passing around said pulleys, the shaft H having cam *h* and a lever J engaged at one end with the cam at the other with the collar on the shaft of the polishing roller. 2nd. The combination, with the rotating and endwise movable polishing roller B having a grooved collar *o* upon its shaft, of the shaft H having the cam wheel *h* and the lever J fulcrumed on the frame engaged with the cam, and having its forked end engaged with the annularly grooved collar aforesaid. 3rd. The polishing roller, consisting of the cylindrical body provided with longitudinal grooves, the layer or layers of carpeting placed thereon, the layer or layers of paper felted over the carpeting, the rubber envelope drawn down into the grooves, the sand-paper laid over the whole, and the binding strips arranged over the grooves and drawn down into the same, carrying along the paper by fastening screws.