

box, loose plate and rod *l*, in combination with and detachable from the heel cutting mechanism whereby the supports for heels of different sizes are made easily interchangeable; 3rd. The movable carriage, a turn table with projecting pins and ledge *4*, in combination with the plate grooved to move the turn table and knife holder; 4th. The combination with the turn table and trimming knife of an adjustable trimming knife holder, and slide plate to adjust the knife; 5th. The combination with a heel trimming knife of the rand crease gauge *as*; 6th. The combination of the knife *d*, and sole gauge *ta*, with the gauge *ra*, and heel-seat clamp; 7th. The top left-plate *ua*, box *k*, and heel support, in combination with the locking pin.

No. 5359. JAMES W. BROOKS, Boston, Mass., U. S., (Assignee of A. D. Elliott, G. E. Fellows and S. A. Simmons), 11th November, 1875, for 5 years: "Heeling Machine." (Machine à talons.)

*Claim.*—1st. The combination of the shaft adapted to move the heel trimming mechanism of a heeling machine with a toothed wheel and such shaft with a toothed wheel and clutch on a second shaft; 2nd. The toothed or loose wheel *S*, combined with the clutch *c*, *ci*, adapted to engage the wheel at opposite sides; 3rd. The rod *g*, fork *f*, collar *d*, and pins *b*, in combination with the clutch *c*, and toothed wheel *S*; 4th. The combination with the clutch *c*, *ci*, and toothed wheel *S*, of the spring *r*, and connecting mechanism for regulating the friction between the clutch and wheel.

No. 5360. JAMES W. BROOKS, Boston, Mass., U. S., (Assignee of G. McKay, H. P. Fairfield and C. W. Glidden), 11th November, 1875, for 5 years: "Machine for Attaching and Trimming Heels." (Machine à poser et parachever les talons.)

*Claim.*—1st. The walking beam and its connected piston adapted to be operated by compressed air in combination with the bar *N*, and last carrying bar; 2nd. The jack holding plate *ni*, and the support for the heel seat clamp connected together through arm *pa*, and adjustable together; 3rd. The bar *N*, in combination with the jack holding plate *ni*, adjustable on the bar to adapt the jack to right and left shoes; 4th. The heel seat clamp *Q*, provided with hinged wings or levers *3*, a spring and plates *5*; 5th. The heel seat clamp *Q*, provided with ears *ga*, in combination with the adjustable slotted eyed support *q*, arms *pa*, and jack holding plate *ni*; 6th. The walking beam *i*, link *n*, and bar *M*, in combination with the jack bar and the heel seat clamp connected with and carried by the bar; 7th. The plunger *D*, of the air compressing apparatus, provided with the perforated head *d*, movable plate and plug in combination with the support *e*, having opening *da*, to receive the plug and with valve to retain the compressed air in the cylinder; 8th. The compressed air receiver *E*, its connected pipe *fa*, the valve chest *G*, in combination with the piston *F*, its link *j*, and walking beam; 9th. The crank *bs*, adjustable two part link *C*, and plunger *D*, of the air pump; 10th. The combination of the valve chest and valve rod of a heeling machine with the levers *H*, *h*, and treadles for operating the levers; 11th. The pivoted vibrating radius bar or crank and adjustable connection between the crank and radius bar in combination with the sliding carriage, and cord for operating the heel trimming mechanism; 12th. The plate *X*, adapted to carry a heel trimming mechanism, in combination with the forked cross plate provided with lugs *wo*, *wz*.

No. 5361. ASHER HOLMES, Hamilton, Ont., 11th November, 1875, for 5 years: "Churn Dasher." (Batte-beurre.)

*Claim.*—A revolving churn dasher, consisting of the combination of the ball *B*, arms *D*, *D*, rings *E*, *E*, and funnel shaped tubes *F*, *F*, all arranged to slide and revolve horizontally on the spindle or shaft *C*, and be adjusted thereto by the thumb screw *G*, operated by bevel gear.

No. 5362. ALBERT J. R. PHILLIPS, SAMUEL R. PHILLIPS and CHARLES L. PHILLIPS, Philadelphia, Pa., U. S., 11th November, 1875, for 5 years: "Ice-creeper." (Crampon à glace.)

*Claim.*—1st. The ice-creeper plate *A*, having upper and lower spurs *D*, *E*, which are integral therewith; 2nd. The ice-creeper plate *A*, having spurs *D*, *E*, which are formed within the confines of the plate.

No. 5363. MOSES K. BORTREE, Jackson, Mich., U. S., 11th November, 1875, for 5 years: "Improvements on Corsets." (Perfectionnements aux corsets.)

*Claim.*—1st. A duplex bore corset having a plurality of superposed strips of whale bone or horn, inserted in each bone receptacle; 2nd. The combination with a corset bone composed of a plurality of strips of the metallic tip *b*; 3rd. The six piece corset, composed of the pieces *A*, *A*, *A*, *A*, and the gores *a*, *a*; 4th. A corset having a portion cut away at each side to expose the top of the hip; 5th. The combination of the adjusting strap *D*, and buckle *Dr*, with the hip pieces *A*, *A*, when the same are cut away to expose the top of the hip; 6th. The arrangement of the bones in the sides of a corset to diverge from a point under the arm to points in front of and behind the hips.

No. 5364. EDWIN W. JOHNSON, Foreston, Ill., U. S., 11th November, 1875, for 5 years: "Grain Cleaner." (Nettoyeur des grains.)

*Claim.*—The combination of a screen, scourer, and brusher; the combination with the screen, scourer and brusher of a fan *F*, and the respective air ducts; the combination in a grain scourer of open upper head *I*, closed lower head *K*, and rods *L*, the same being constructed in tapered form and having a tapered perforated outer shell *I*; the shell *N*, surrounding the perforated scouring and brushing shell with an air space between them, air passage *P*, *Q*, and fan *F*, the adjustable yoke *W*, eccentric *L*, and screen *A*, the combination of wind passage *B*, and vacuum chamber *D*, with the screen *A*.

No. 5365. THE ROSAMOND WOOLLEN COMPANY, (Assignee of C. E. Scrimgeour), Almonte, Ont., 11th November, 1875, for 5 years: "Process and Apparatus for Finishing Cloth." (Procédé et appareil pour parachever le drap.)

*Claim.*—1st. Subjecting the cloth in the process of finishing to the action of vapour generated from water in a close vessel by the injection of steam under pressure; 2nd. The combination of a perforated vapour distributing cylinder *D*, with its box *E*, or other device for vapourizing the cloth, and a close water tank *A*, for generating vapour connected thereto by a pipe *C*, and having a steam inlet pipe *B*, for connection with a boiler.

No. 5366. JAMES W. BROWN, London, Eng., 11th November, 1875, for 5 years: "Mode and Apparatus for Transmitting Telegraph Signals." (Mode et appareil de transmission des signaux télégraphiques.)

*Claim.*—The use of the three pens or styles *a*, *b*, *c*, or their equivalents, in combination with a ribbon perforated.

No. 5367. GILLMAN H. AMES, Adrian, Mich., U. S., 11th November, 1875, for 5 years: "Car-coupling." (Attelage de wagons.)

*Claim.*—1st. The coupling bar *B*, having the front slot *J*, and sub-jacent hook *H*, which may be applied to a car or to the draw head of a car; 2nd. The coupling bar *B*, having slot *J*, and sub-jacent hook *H*, and side-arms *A*, *A*, in combination with the draw head *D*, having side slots *s*, *s*; 3rd. The combination of the shaft *z*, *z*, pulley *P*, and chain *J*, with the coupling bar *B*, for the purpose of uncoupling the cars.

No. 5368. LEVI W. POND, Eau-Claire, Wis., U. S., 11th November, 1875, for 5 years: "Saw-mill Head Block." (Poupée de scierie.)

*Claim.*—1st. The jack *C*, provided with a sliding or movable bar operating below the face of the head block and permitting the movement of each jack independently of the others, in combination with the head block *B*; 2nd. The independent spring *J*, in combination with the head block *B*, and jack *C*, provided with an arm or stop *K*; 3rd. The frames or bars *m*, *n*, each having dogs *c*, *ci*, *ci*, pivoted thereto and also to the jack in combination with the dogs *f*, *f*, with rear ward extensions *fi*, *fi*, arms *g*, *t*, and lever *I*; 4th. The wheel *L*, provided with projections *r*, in combination with the set shaft *D*, ratchet wheel *R*, and brake *P*.

No. 5369. FRANKLIN BEAUMONT, Jr., and WILLIAM H. BEAUMONT, Dallas, Texas, U. S., 11th November, 1875, for 5 years: "Improvements on Stilts." (Perfectionnements aux échasses.)

*Claim.*—1st. The combination with a stilt rod and sliding tube or sleeve of any desired shape of a stirrup or foot support pivoted to said tube so that weight imposed thereupon secures the same to the stilt rod; 2nd. The rod *A*, sliding tube or sleeve *B*, having lugs *b*, *bi*, and slot *b*, the spring *E*, and pivoted stirrup *C*, having serrated extension *C*.

No. 5370. ADOLPHE PAYETTE, Montreal, Que., 11th November, 1875, for 5 years: "Improvements on Axle-boxes." (Perfectionnements aux boîtes d'essieux.)

*Claim.*—The combination with any axle box of a reservoir or chamber *H*, for containing lubricating fluid communicating with the axle box *F*, and provided with a cup *I*.

No. 5371. OLIVER HOLDEN, Chicago, Ill., U. S., 11th November, 1875, for 5 years: "Apparatus for Separating Substances from Liquids." (Appareil à séparer les matières solides des liquides.)

*Claim.*—1st. The use of any alloys composed of two or more metals in combination which are electro-positive and electro-negative to iron when applied [such as zinc and tin] so as to reduce or increase and control the positive or negative action of the same, to the exact degree required to protect iron from corrosion or rust when such iron is exposed to the chemical action of fresh salt or accidental water or dampness; 2nd. The combination of certain metals or alloys of metals for the purpose of preventing incrustation or adhesion to the surfaces of iron or copper for.