



Vol. IV.—No. 9.

SEPTEMBER, 1876.

Price in Canada \$2.00 per An
United States - \$2.50

CONTENTS.

INVENTIONS PATENTED.....	133
INDEX OF INVENTIONS.....	CXIII
INDEX OF PATENTEES.....	CXIII
ILLUSTRATIONS.....	142

INVENTIONS PATENTED.

No. 6340. Improvements in Journals and Journal Boxes.

(Perfectionnements aux tourillons et aux boîtes de tourillons.)

William S. Mead, San-Francisco, Cal., U. S., 20th July, 1876, for 5 years
Claim.—1st. Securing the chilled or gray iron sleeve on the journal to prevent it from turning; 2nd. The chilled or gray iron balls *k*, between the end of the rollers *G* and the plate; 3rd. Relieving the friction due to end play and pressure by means of the chilled segments of a sphere *M* and *C*, and chilled or gray cast iron surfaces; 4th. The chilled cast iron pieces *P* in the end of the journal; 5th. The cover on the inside end of the journal box so as to run it with or without oil.

No. 6341. Machine for Lifting Stone and other heavy weights.

(Machine à lever la pierre et autres fardeaux.)

William H. Solomon, Stukely, Que., 21st July, 1876, for 5 years.
Claim.—1st. The combination of the spring *L*, hoist gage *N* and elongation *T* of said lever *E*; 2nd. The formation of the lower extremity of said sliding bar *C* into the claw hook *Z*.

No. 6342. Improvements on Window Shades.

(Perfectionnements aux jalousies.)

Elliott Metcalf, Port Huron, Mich., U. S., 21st July, 1876, for 5 years.
Claim.—1st. The two laces *C*, hanging down on each side of the slats *B* and fastened thereto by the staples *D*, one staple near each edge of each slat *B*; 2nd. The combination of the small rollers *E*, screwed to the top board *A*, with the laces *C* to open the slats *B* at any required degree; 3rd. The arrangement of the two cords *F* and *G* passing either in the forked pulleys *H*, or in the screw eyes *s* screwed to the top board *A*, for the purpose of opening or shutting the shade.

No. 6343. Improvement on Office Desks.

(Perfectionnements des pupitres de bureaux.)

William S. Wooton, Indianapolis, Ind., U. S., 21st July, 1876, for 5 years.
Claim.—The hinged, or pivoted, or rotating chests or cases *A* and *A'*, located in the hinges or ends of the desk.

No. 6344. Machine for Polishing Boot and Shoe Heels.

(Machine à polir les talons des chaussures.)

Leopold Graf, Newark, N. J., U. S., 21st July, 1876, for 5 years.
Claim.—The first part: 1st. The lever cam *M*, pivoted on the bearing *G*, in combination with the yoke *A*, dog *L*, pawl *K* and the clamp *C F*; 2nd. The combination of the eccentrically rotating plate *K*, with the yoke holder; 3rd. The ratchet wheel *D* and holding pawl *E*, combined with the lifting spring *C* of the yoke holder; the second part: 1st. A polisher pivoted at lower end of its carrier and connected with a stationary object at *L*, by the

arm *J* and bar *K*, in combination with a carrier that swings on a pivot *F* in the top of a standard *B*; 2nd. The combination of the vibrating and adjusting gage *M*, with the polisher; 3rd. The gage *M* fitted on the pivot of the polisher and connected with stationary stud *T*; 4th. The combination of sliding gage *M*, spring *O* and the cam block *P*; 5th. The combination with the sole plate of clamp frame *S*, connected by the ball and socket joint *U* to holder *V* having a sliding motion in the swinging holder *W*.

No. 6345. Lifting Jack. (Cric.)

George W. Hunter, Joseph P. Norris, Theodore L. Chase, Philadelphia, Pa., and Henry M. Baker, Washington, D. C., U. S., 21st July, 1876, for 5 years.

Claim.—1st. The combination of a standard, sliding-bar, dog operated by a lever or other device and gripping the bar when tilted; 2nd. The combination with the bar and tilting and gripping dog of stops to tilt the dog; 3rd. The standard consisting of metal pieces *b b*, bolted together and to the base *A*; 4th. A lifting jack provided with a sliding-bar carrying an adjustable arm *D*; 5th. The combination of the sliding-bar, of a lifting jack and a chain secured permanently to the bar; 6th. The combination of the standard sliding-bar and base plate *A*, having a recess *a*, through which the bar may be projected below the base; 7th. The double ended pawl combined with the sliding-bar having teeth inclined at both sides to arrest the movement of the bar in either direction; 8th. The combination of the sliding bar, pawl, operating lever *I* and arm *L*, whereby the pawl is thrown outward on elevating the lever; 9th. The standard provided with an arm *J*, extending at right angles or thereabout to the standard below the lever; 10th. The standard consisting of the side pieces *b, b*, each having flanges *c, d*, and parallel guides.

No. 6346. Improvements on Fruit Dryers and Evaporators.

(Perfectionnements aux séchoirs et évaporateurs à fruits.)

Andrew J. Reynolds, Chicago, Ill., U. S., 21st July, 1876, for 5 years.
Claim.—1st. A condenser arranged within the drying chamber, said condenser filling or partly filling the upper portion of the drier whereby the air within the chamber is rendered and kept dry; 2nd. A drum revolving within a drying chamber and carrying with it, in its rotation, a series of fruit shelves or trays capable of being raised and lowered; 3rd. The drum *E*, extending centrally through the dry house and supporting the fruit trays, together with the windlass and ratchets; 4th. The combination with a hot air pipe, a hollow shaft, a furnace, a fan or blower, a smoke pipe and a drum *E*, whereby a current of heated air is created, maintained and caused to circulate through and among the revolving trays of fruit or other substance to be dried; 5th. The hot air drum *Q*, heated air pipe *O*, warm air chamber *T*, ports *u u*, in combination with the revolving drum *E* and fruit trays *F F*; 6th. The fruit trays to be attached; 7th. The revolving shelf frames *F F*, in combination with the fans *S S*, operated by the hollow shaft *C*; 8th. The combination of the shelf frames *F F*, the fans *S S* and furnace and condenser; 9th. The combination of a drip pan with a condenser and hollow shaft.

No. 6347. Improvements in the Construction of Sewers.

(Perfectionnements dans la construction des égouts.)

Alfred Brittain, Montreal, Que., 21st July, 1876, for 5 years.
Claim.—1st. The novel art of constructing drains and sewers in a continuous brick work by means of an outer rib *c*; 2nd. The rib *c* constructed to be arranged in combination with the brace *d*.

No. 6348. Improvements on Car-Couplings.

(Perfectionnements aux attelages de wagons.)

James C. Mitchell and Charles W. Roby, Lancaster, N. H., U. S., 21st July, 1876, for 5 years.
Claim.—1st. In combination with any freight or other car, the draw bar *A* provided with back plate *A2* and secured both to the cross head of the car and to any point near the centre of the car to equalize the draught strain; 2nd. The draw bar *A* provided with back plate *A2* and divided up