

straight or a regularly serrated cutting edge, the side heads D, D, provided with knives having a concave cutting edge and the saws F, F, or their equivalent.

### No. 6184. Improvements in Chronometric Locks.

(*Perfectionnements aux serrures à mécanisme d'horlogerie.*)

John Burge, Circleville, Ohio, U. S., 12th June, 1876, for 5 years.

*Claim.*—1st. A seven day dial provided with notches; 2nd. The combination of two notched dials and a connecting yoke or detent plate; 3rd. The combination of two notched dials, a connecting yoke, and adjusting disks, by means of which perfect adjustment of the dials with respect to the yoke can be effected so as to secure the unlocking action at any desired time; 4th. The combination of the dial time mechanism and the direct acting locking and unlocking mechanism; 5th. The combination of an automatic unlocking lever operated by clock work, and a connecting device for attachment to the bolt work of a safe or vault door; 6th. The combination of a connecting device, for attachment to the bolt work of a safe or vault door and a fixed shoulder or block, disconnected from the time mechanism against which the connecting device automatically abuts, and secures the bolt work in the locked position, the instant it is thrown into that position by the usual means; 7th. A connecting device adapted to be attached to the bolt work of a safe or vault door, and to be automatically adjusted in position for receiving (and for releasing) the bolt work; 8th. The combination of the yoke or detent plate and the clapper lever and ratchet secured to the same shaft; 9th. A chronometric lock working in combination with a non time lock, both attached to the same string bar, bolt or bolt work of a safe or vault door.

### No. 6185. Machine for Applying the Insole Lining to Boots.

(*Machine à poser la basane dans les chaussures.*)

Charles Monahan and Joseph H. Valpey, St. John, N.B., 12th June, 1876, for 5 years.

*Claim.*—1st. The combination of the last B, to the upright post A; 2nd. The combination with the last B, and the post A, of the spiral spring E, the support D, and the spring acted guard piece C.

### No. 6186. Improvements on Car-couplers.

(*Perfectionnements aux accoupleurs de wagons.*)

James C. Mitchell and Charles W. Roby, Lancaster, N. H., U. S., 12th June, 1876, for 5 years.

*Claim.*—1st. The combination of the draw bar A, recessed so as to form shoulders a, with the coupling plate C, and pivoted to the draw bar; 2nd. In combination with the draw bar A, and coupling plate C, the coupling link B, provided with shoulder b; 3rd. In combination with the draw bar A, the coupling plate C, operated by means of lever E; 4th. The combination with any car of the draw bar A, furnished with shoulder A<sub>1</sub>, and spindle D.

### No. 6187. Horse-rake. (*Râteau à cheval.*)

Charles Luddy, Newmarket, and George Blake, Whitby, Ont., 12th June, 1876, for 5 years.

*Claim.*—1st. The ratchet wheel A, cast or otherwise fastened the sheaf wheel B, or its equivalent, fitting upon the axle C, in combination with the pawl E, pivoted to the hub D; 2nd. The shaft G, supported upon and extending across the frame of the machine and provided with sheaf wheels H, or their equivalent, in combination with the sheaf wheels B; 3rd. The lever M, pivoted to the frame of the machine and provided with a disc T, in combination with the friction strap S, operated by the foot lever R; 4th. The tooth bar W, divided in the centre in combination with the teeth V; 5th. The crank lever H, pivoted upon the shaft G, and having forked-shaped end within which the friction wheel I, fits and being provided with a crank buckle J<sub>2</sub>, and crank arm K<sub>1</sub>, with roller J<sub>2</sub>, in combination with the lever L<sub>1</sub>, rod P, and treadle O<sub>1</sub>, arranged and operated for the purpose of raising the staple bar.

### No. 6188. Machine for Making Tackle Blocks.

(*Machine à faire les moufles de poulies.*)

Frederick S. Burr, Brooklyn, N. Y., U. S., 12th June, 1876, for 5 years.

*Claim.*—1st. The combination of plates Q, with removable plates having differential bearings; 2nd. A tackle block machine having five borers, four of which are adjustable with respect to the fifth or central one, the former making the end holes while the latter makes the pin hole; 3rd. The combination with formers fastened to a movable table beside the work of the guide-rolls carried with the work, and admitting the formers to pass them; 4th. The combination in a tackle block machine of two sets of knives and formers working simultaneously on the same piece of wood, the one on top and the other on bottom.

### No. 6189. Machine for Attaching Shafts to Buggies and Cutters.

(*Machine à ajuster les limonières de voitures.*)

William M. Wilcox, Port Perry, Ont., 12th June, 1876, for 5 years.

*Claim.*—1st. The use of the burr A, rivetted to bolt C; 2nd. The use of the shoulders D, and E, on the axle clip yoke B; 3rd. The openings in draw jack F, and bolt C, in which the shaft coupler T, is inserted, being adapted for the admission of a crooked shaft coupler.

### No. 6190. Ironing Board. (*Planche à repasser.*)

Jacob K. Butler, Yarmouth, N. S., 12th June, 1876, for 5 years.

*Claim.*—1st. In combination with the board A, the screw D; 2nd. The hinged adjustable support C, in combination with the board A; 3rd. The notches H, H, in combination with the frame B; 4th. The pins (t. G), and I, I, in combination with the adjustable support C; 5th. The iron stand E, clamp L, in combination with the screw D.

### No. 6191. Bolt Cutter. (*Cisailles à boulons.*)

James Dawson, Greenwood, Ill., U. S., 12th June, 1876, for 5 years.

*Claim.*—The reversible jaw D, in combination with handle B, stirrup F, set screw e, and cam lever A.

### No. 6192. Improvements on Overall Trousers.

(*Perfectionnements aux pantalons de voyage.*)

John L. Griffin, Eastport, Me., U. S., 12th June, 1876, for 5 years.

*Claim.*—1st. The provision of the elastic strap D, secured to the waist band; 2nd. The reinforcing elastic pieces C, secured at the bottom of the pocket slits; 3rd. The bib E, attached removably to the waist band of the overall, and having a strap F, for its support in wearing.

### No. 6193. Draft Equalizing Harness,

(*Harnais régulateur de la tire.*)

Cornelius Cole, Castleton, Ont., 12th June, 1876, for 5 years.

*Claim.*—The draft equalizing bar A, having the U-shaped bars C, C, attached at each end to connect with the short tugs of the teams harness.

### No. 6194. Apparatus for Burning Kerosine and other Oils in Lamps without Chimneys.

(*Appareil pour brûler la Kérosène et autres huiles dans les lampes sans cheminées.*)

Cornelius Godfrey, Huntington, N. Y., U. S., 12th June, 1876, for 5 years.

*Claim.*—1st. In combination with a lamp having an opening at or near the lower part thereof which connects with an air passage leading to the flame, a nozzle or nipple, of any suitable construction through which air is forced under pressure; the said nozzle being located at some distance below the said opening for the purpose of drawing into the lamp a column or columns of air from the atmosphere surrounding the lamp together with the jet of air emitted from the nozzle; 2nd. In combination with a lamp having an air passage which leads to the flame, and connects with an opening at the lower part of the lamp, the air pipe C, and a conical nozzle D, the said nozzle being secured to the said pipe C, and placed at some distance below the said opening; 3rd. An aerometer or air reservoir, the main portion of which is made from paper or paste board, and the top and bottom of which are secured respectively to covers o, and p, of wood or other unyielding material; 4th. In combination with the hinged sides q, q, and hinged tapering end pieces P, P, the flexible gussets m, m; 5th. The aerometer consisting of the top o, bottom p, hinged sides q, q, and tapering end pieces P, P, the said end pieces being connected with the main body o, by flexible gussets m, m; 6th. In an aerometer, the combination with the top o, bottom p, and hinged sides q, q, of the ribs s, s, and bars t, t; 7th. The method of increasing the brilliancy of the light of kerosene and other oil lamps by forcing oxygen gas through pipes to the lamps.

### No. 6195. Improvements on Extension

Ladders. (*Perfectionnements aux échelles a rallonge.*)

Joseph Gagné and Jean B. Peloquin, Montreal, Que., 12th June, 1876, for 5 years.

*Claim.*—1st. The combination of the extendible legs a, i, and b, d, and 2nd. The combination of the extendible legs a, i, and b, d, and pin c, arranged so that the said pin may be removed, and the legs either all used together, or the legs b, and d, used alone.

### No. 6196. Improvements on a Car-Coupling.

(*Perfectionnements à un attelage de wagons.*)

Ninian H. Dolson, Chatham, Ont., 12th June, 1876, for 5 years.

*Claim.*—1st. The concave mouth piece B, either pressed from a sheet, welded, rivetted or otherwise fastened together so as to form a flaring mouth piece or buffer of wrought iron for the purpose of guiding the link into its place when it strikes it at an angle; 2nd. The pin C, and bent bar D, fastened on pin C, carrying rollers E, E; 3rd. In hinged bent lever F, in connection with bent bar D, and rollers E, also flat guide piece G, and mortises H, H, the flat guide piece being to keep the pin from turning as well as to aid by its weight in connection with pin C, bent bar D, and hinged bent lever F, to balance the link and hold it in a horizontal position always ready for coupling; 4th. The hook I, pieces J, and K, springs L, and M, and gate N, in connection with bent lever F, for the purpose of keeping the pin in position when raised up to uncouple, and for letting the pin drop when the link is inserted into the opening in mouth piece B; 5th. The side pieces o, o, bent in such a manner that when bolted together, they will fit tightly between top and bottom pieces P, P, for the purpose of strengthening them from unequal height of cars, the strain from bumping does not come in direct line with axis of coupling; the whole forming a complete automatic car-coupler which may be uncoupled from either side or from top of car.

### No. 6197. Combined Cane and Umbrella (Frame. (*Canne-Parapluie.*)

Monroe M. Copp, Rochester, N. Y., U. S., 12th June, 1876, for 5 years.

*Claim.*—1st. The combination of the hollow handle or cane H, in two parts connected by the screw slip joint J, of any style of finish and covered with any material, having the threaded tube final F, provided with the sloped shoulder S, lug I, and screw plug P; 2nd. The screw rod D, to which is solidly joined the notch ring N, and the guide rod r, and having the horizontal groove v, in combination with the ribs B, stretchers t, and runner R; 3rd. The combination of the runner R, provided with the groove g, bent stretchers t, ribs B, guide rod r, and screw rod D, with the handle case H, having the slip screw joint J.

### No. 6198. Improvements on Steam Engines for Economising Fuel.

(*Perfectionnements aux machines à vapeur pour économiser le combustible.*)

James Metcalfe, Edward Hamer and Richard Metcalfe, Aberystwith, Wales, 12th June, 1876, for 5 years.

*Claim.*—1st. The use and applications of Apparatus in connection with the blast pipe and injector for the purpose of utilizing the exhaust steam by returning it to the boiler with the feed water either in the form of steam or condensed and forming part of the feed water; 2nd. The use and application of apparatus in connection with the exhaust pipe or steam ports and the injector for the purpose of utilizing exhaust steam; 3rd. The use and application of apparatus in connection with the blast pipe or exhaust pipe and a steam feed pump for utilizing exhaust steam; 4th. The use and application of catch valve and back pressure valves; 5th. The use and applica-