

rod K, with the sett roll frame A for the purpose of quickly and conveniently raising the upper sett roll to remove the remnant of an old block and put in a new one. 5th. The combination of the carriage L, the pivot pin x, the guide plate B, the sett roll frame A, the weight O, the weight lever N, the rod K and the foot lever R, substantially as and for the purpose hereinbefore set forth.

### No. 19,888. Brick Machine.) *Machine à Briquer.*)

John B. Foster, Zurich, Ont., 2nd August, 1884; 5 years.

*Claim.*—1st. A tile forming attachment, in combination with a brick making machine, consisting of driving bar or rod J, crank K, shaft L, cogged disks M, tooth racks N and block P, acting in conjunction with the other parts of machine, and operated thereby for the purpose of pushing the clay into the tile moulds and expelling the same as tiles, substantially as shown and specified. 2nd. The box R having a longitudinal opening or slid *a* on top, for the purpose of receiving the clay to be expelled as tiles, substantially as shown and specified.

### No. 19,889. Hitching Strap.

*(Courroie d'Enrèneiro.)*

Samuel Birdsall, Susquehanna, Penn., U. S., 2nd August, 1884; 5 years.

*Claim.*—1st. In a hitching strap, the combination, with the tie strap E and the brace strap I, of a headed bolt and a nut for clamping the said brace strap to the tie strap, substantially as set forth. 2nd. In a hitching strap, the combination, with the tie strap E and the brace strap I, of the bolt F having shoulder F<sub>1</sub> and the nut and washer G, H, substantially as herein shown and described, whereby the said brace strap will be firmly connected with the tie strap and can be readily swung to either side, as set forth.

### No. 19,890. Compound for Preventing the Formation of Clinkers in Coal.

*(Composition pour empêcher la formation du Mûche-Fer dans le Charbon.)*

Wesley Case, Topeka, Ks., U. S., 2nd August, 1884; 5 years.

*Claim.*—The compound for preventing clinkers, herein described, consisting of bi-carbonate ammonia, saltpeper, bi-carbonate soda, rosin, Epsom salts, common salt and a base for preventing the mass from cementing together, all in or about the proportions described.

### No. 19,891. Shoe. *(Soulier.)*

Samuel C. Crowe, Boston, Mass., U. S., 2nd August, 1884; 5 years.

*Claim.*—A gaiter or congress shoe having its "upper" composed of a single piece A, and with but a single seam located at the inner side of the shoe above the shank, substantially as and for the purpose described. A front laced shoe having its "upper" composed of a single piece A, and with but a single seam located at the toe, substantially as and for the purpose set forth.

### No. 19,892. Post Hole Digger.

*(Sonde pour Trou de Pieu.)*

William H. Rhodes, Chicago, Ill., U. S., 2nd August, 1884; 5 years.

*Claim.*—1st. In a post-hole digger, the combination, with the handles A, A<sub>1</sub>, of the head-pieces B, B<sub>1</sub> provided with the upward projecting ends *a*, *a*<sub>1</sub> and the stop-lugs *p*, *p*<sub>1</sub>, whereby said handles are locked when closed together or adapted to cross each other, as described. 2nd. In a post-hole digger the combination of the following elements: The digging-blades C, C<sub>1</sub> having the lower halves thereof cut away at an oblique angle, the head pieces B, B<sub>1</sub> adapted to have a pivotal movement, the projecting ends *a*, *a*<sub>1</sub>, the stop-lugs *p*, *p*<sub>1</sub>, and the handles A, A<sub>1</sub> provided with the hand-grasps *a*, *a*<sub>1</sub>, all combined, arranged and operating substantially as described. 3rd. In a post-hole digger, the curved companion-blades C, C<sub>1</sub> having the lower parts thereof cut away inwardly from both edges, gradually narrowing these parts down to a rounded point for the purpose of adapting the same to shut close together, forming a cone-shaped receptacle tightly closed at the lower end, substantially as and for the purpose set forth.

### No. 19,893. Friction Clutch.

*(Embrayage à Friction.)*

Helen C. Crowell, Erie, Penn., U. S., 2nd August, 1884; 5 years.

*Claim.*—1st. In a friction clutch for the gearing of machinery, the combination substantially as shown, of the following elements: a concentric clutch flange upon one part of the machinery, which is provided with friction surfaces on the inner and outer sides thereof, and a head or frame on the correlative part of said machinery having adjusted upon it a gripping device with both its jaws made movable, and adapted, substantially as shown, to grip the said clutch flange on its said friction surfaces by the movement of both of said jaws. 2nd. In a friction clutch for gearing of machinery, the combination, substantially as shown, of the following elements: a concentric clutch ring upon one of the parts of the machinery which is provided with a flange having friction surfaces upon opposite sides thereof, a cross-head or frame upon the correlative part of said machinery adjusted adjacent to said clutch ring, a vise like gripping apparatus having both its jaws made movable, one of which is within and the other without said clutch-ring, and, finally, a system of levers for operating said jaws which are arranged on said cross-head or frame, outside of said clutch-ring. 3rd. In a friction clutch wherein the clutching is effected, substantially as shown, the combination of the frame B, with arms having recesses or inlets B<sub>1</sub>, jaws C, C<sub>1</sub> pivoted on each side of said arms and setting within said recesses, and the levers D and E and the bolt D<sub>1</sub> for operating said jaws, all substantially as and for the purposes set forth. 4th. In a friction clutch, substantially as shown, the combination of the frame B, jaws C, C<sub>1</sub>, bolt D<sub>1</sub>, levers D

and E and the springs S, S<sub>1</sub>, substantially as shown. 5th. In a friction clutch, substantially as shown, the combination of the jaw C<sub>1</sub>, belt D<sub>1</sub>, levers D and E and a spring adjusted between said levers D and E, substantially as and for the purposes set forth. 6th. In a friction clutch, substantially as shown, the combination of the levers D and E and the spring G, adjusted within the trunioned socket G and having means, substantially as shown, for adjusting the same between said levers D and E, for the purposes mentioned. 7th. In a friction clutch, substantially as shown, the combination, with the lever E, of a roller *e* adjusted within the socket E<sub>1</sub> and secured by the wire *h*, substantially as and for the purposes mentioned.

### No. 19,894. Machine for Making the Teeth of Horse Rakes. *(Machine pour Fabriquer les Dents des Râteaux à Cheval.)*

Napoléon Hainault, Montréal, Qué., 2 Aout, 1884; 5 ans.

*Résumé.*—1o. Dans une machine à fabriquer, les dents de râteaux à cheval, la forme A, les pinces A<sub>6</sub> et A<sub>7</sub>, les leviers C<sub>1</sub>, C<sub>2</sub>, la projection Q, en combinaison avec le marteau J et le système à contre-poids Q, Q<sub>1</sub>, Q<sub>2</sub> et la poulie O P, tel que ci-dessus décrit et pour les fins susmentionnées. 2o. Dans une machine à fabriquer, les dents de râteaux à cheval, la forme A, en combinaison avec le tambour K l l<sub>1</sub> a m n S x et z, les systèmes de leviers *a*<sub>3</sub>, *a*<sub>4</sub>, *a*<sub>5</sub>, *a*<sub>6</sub>, *a*<sub>7</sub>, *a*<sub>8</sub>, *a*<sub>9</sub> et N, O, P, Q, R et la poulie à friction T T<sub>1</sub> T<sub>2</sub>, tel que montré et ci-dessus décrite et pour les fins susmentionnées. 3o. Dans une machine à fabriquer les dents de râteaux à cheval, la forme A, en combinaison avec l'essieu B et le bâti M, tel que ci-dessus décrit et pour les fins susmentionnées.

### No. 19,895. Manufacture of Bows and Scarfs. *(Fabrication des Boucles et Echarpes.)*

William H. Williamson, Toronto, Ont., 2nd August, 1884; 5 years.

*Claim.*—In a scarf or bow provided with a neck-band B B<sub>1</sub> of silk cord or tape, or other suitable material, a snap-hook C with eye C<sub>1</sub> and the wire guard D, the whole constructed and arranged and operating in combination, substantially as shown and described and for the purposes set forth.

### No. 19,896. Shutter Operating and Locking Device. *(Appareil Ouvrant et Fermant les Persiennes.)*

Henry J. Hussicker and George Boop, Laurelton, Penn., U. S., 2nd August, 1884; 5 years.

*Claim.*—1st. The combination, with the outside shutter provided with a slot in its bottom surface, of the lever which has a pin to engage with said slot, and which is arranged substantially as set forth, to be operated from the inside of the window. 2nd. The combination of the outside shutter having a slot in its bottom surface, the sill extending a rabbet or chamber on its inner surface and an aperture extending to the inside of the window, the bent lever having a pin which engages with said slot in the shutter, arm *b* which lies beneath the shutter when it is open, the arm *a* which lies close to the casing when the shutter is open and the arm *c* upon the inside of the window, substantially as set forth. 3rd. The combination of the lower stationary sill, the bearing supporting plate O below the sill, the outside shutter, the bent lever loosely connected with the shutter, and the pivot or shaft *L* rigidly connected to said lever and having one end mounted in the sill and the other end in the lower supporting plate O, substantially as set forth. 4th. The combination of the shutter provided with a slot in its bottom surface and with the outside facing-piece *b*, and the lever provided with a pin to engage with said slot and mounted substantially as set forth, to have the arm *b* lie entirely within the facing piece and be protected thereby, substantially as set forth. 5th. The combination of the chamber N on the inside below the sill, the outside shutters, the levers which engage with the shutters, the devices mounted in said chambers on the inside for operating the levers, and the door which closes said chamber and conceals the lever-operating devices, substantially as set forth. 6th. In combination, with the slats F, mechanism, substantially such as herein described, for opening and closing the slats from the inside without necessitating the raising of the sash, as described. 7th. In combination, with the slats and the connecting bar G, a lever pivoted to the blind and connected at one end with the bar G, a sliding rocking bar *I* mounted in the casing and adapted to engage with the free end of said lever and move it to operate the slats, when it (bar *I*) is forced outwardly, and a spring engaging with the bar *I* to force it out of engagement with the lever, substantially as set forth. 8th. In combination, with the slats F and the connecting bar G, a lever H pivoted to the blind and connected at one end with bar G, and provided at its opposite end with a slot *h*, a bar or shaft *I* mounted in the casing and carrying an eccentrically arranged pin *i* adapted to engage with the slot *h*, substantially as set forth. 9th. In combination, with the blinds, mechanism, substantially such as herein set forth, adapted to lock said blinds and to be operated from the inside without necessitating the raising of the sash, as set forth. 10th. The combination, with the shutters, of a hasp carried by one of the shutters, a sliding bolt carried by the other shutter, a sliding rack engaging with the sliding bolt to operate it, and means for moving said sliding bolts out from engagement with the rack after it has been withdrawn with the hasp, substantially as set forth. 11th. The combination, with the shutters, of a hasp carried by one of the shutters, a sliding bolt carried by the other shutter, a sliding rack engaging with the bolt to operate it, a shaft projecting from the inside through the casing, and a wheel mounted upon said shaft and engaging with the said rack, to operate it, substantially as set forth. 12th. The combination, with the shutters, of a hasp carried by one of the shutters, a sliding bolt *k* carried by the other shutter having the bevelled edge *k*, a support *l* for the bolt, a spring bearing upon the upper side of the bolt, a sliding rack engaging with the bolt and means for moving said rack, substantially as set forth. 13th. In combination, with the slats and the bar G, the herein-described connection between the two, consisting of the wire R which passes through the bar and through apertures in the slats, as described.