

beam, and the axles having the clearer-vibrating cams, and the axle-supporting bars connected to the forward bar of the clearer and to the handles, substantially as and for the purpose set forth.

### No. 19,522. Clod Crusher. (*Brise-Motte.*)

August Peterson, Kent, Ohio, U. S., 9th June, 1884; 5 years.

*Claim.*—The circular-edged hollow crushers *a* bevelled on both sides, in combination with frame *f* and rotating wooden shafts *e*, *et* provided with, and grooved to receive metallic strips *c*, the crushers *a* being free to rotate both on and with their shafts, and each crusher having rotation on its shaft independently of the others, substantially as described.

### No. 19,523. Staple Extractor. (*Arrache-Crampe.*)

Benjamin Hubbell and John W. McLellan, Afton, Iowa, U. S., 9th June, 1884; 5 years.

*Claim.*—The staple-extractor consisting of a pair of lever jaws, pivoted together and having laterally-projecting rounded fulcrum surfaces, commencing at the meeting edges of the jaws and forming with said rounded surfaces wedge-like ends *k*, and the central staple-receiving notches *n* made in the terminal ends of the jaws, substantially as specified.

### No. 19,524. Lacing for Gloves and Boots.

(*Ligature pour Gants et Bottines.*)

Hutton & Co., London, Eng., (assignees of Alonzo C. Mather, Chicago, Ill., U. S.) 9th June, 1884; 5 years.

*Claim.*—1st. As a new article of manufacture, a glove having a slit *A* on either side of which is a series of opposing eyelets *C* through which is inserted a continuous lacing cord *B* crossed between and running freely in and through all of said eyelets, the free end of said cord passing through a slide *D* adapted to hold the cord in its operative position, when drawn taut and close the slit *A*, substantially in the manner described and shown. 2nd. A shoe provided with a flap or tongue having loops or eyes *o* on its underside, the side or sides of the instep opening being provided with eyelets or eyes, and the lacing cord being applied through the said loops and eyes or eyelets, substantially as specified for the purposes set forth.

### No. 19,525. Slate Washer. (*Torchon d'Ardoise.*)

Howard L. Weed, Grass Valley, Cal., U. S., 9th June, 1884; 5 years.

*Claim.*—1st. In a slate washer, an interchangeable pad bevelled at both ends, to form a point or wiper *C* made compact and held together by a cord or clamp, substantially in the manner specified. 2nd. In a slate-washer and wiper, the hollow trough or cup to receive and hold the pad or wiper with its lower end provided with clamp or hooks to receive and hold a sponge or washer, in combination with a box or holder for said washer, constructed and arranged in the manner as herein set forth and described.

### No. 19,526. Combined Wash Bench and Step Ladder. (*Banc de Buanderie et Marche-Pied Combinés.*)

James S. Nelson, Springfield, Ohio, U. S., 9th June, 1884; 5 years.

*Claim.*—1st. The combination, with the pivoted cross legs connected together by rounds or bars, of the ladder frame having notched side pieces and steps, and the whole adapted to be converted into a wash bench or step-ladder as desired, substantially as described. 2nd. The combination of two pairs of pivoted cross legs connected together by rounds, and a ladder frame having notched side pieces pivoted to each leg of one pair of said cross legs, and the round connecting the other pair of cross legs engaging with the notches in the side pieces of the ladder frame, whereby, when the ladder is brought into a horizontal position, the whole is adapted to form a support for an ironing board and the height of the same regulated by means of the notches and connecting round, substantially as described. 3rd. The combination of the pairs of pivoted legs 1 and 2 provided, at their extremities respectively, with the bars or rounds 4 and 7 with the notched side pieces 8 having steps 10 and hung on the bar or round 7, to form the extension 11, said extension being constructed substantially as made by applicant, whereby said bar or round 4 may interlock with such extension for holding the parts in position to form a step-ladder, substantially as shown and specified. 4th. The combination of the pairs of pivoted supporting legs 1 and 2, provided at their extremities respectively with the bars or rounds 4 and 7, with the side pieces 8 having steps 10 and hung on the bar or round 7, to form the extension 11, which is provided with the step 12 extending beyond the inner edges of the side pieces, to provide the offset 13 under which the bar or round 4 of the legs is capable of engaging, to support the parts in position for a step-ladder.

### No. 19,527. Machine for Separating Potatoes. (*Machine pour Trier les Patates.*)

James R. Bellamy, Everett, Ont., 9th June, 1884; 5 years.

*Claim.*—As a screen or separator, the combination of the two sieves *B* and *C* of different mesh, enclosed in a frame *A*, so as to deliver two sizes or grades of potatoes in different places, with the legs *E*, such legs acting as springs, as shown and described and for the purpose specified.

### No. 19,528. Railway Tie. (*Traverse de Railroute.*)

Elias B. Hungerford, Corning, N. Y., U. S., 9th June, 1884; 5 years.

*Claim.*—1st. A metallic railway tie having portions thereof punched out and bent downward to form feet, which enter the earth and prevent displacement of the tie, substantially as described. 2nd. The combination, with a railway tie, of a bed plate for the rail having a curved jaw which overlaps the base of the rail, thereby holding it on

the plate, substantially as described. 3rd. The combination, with a railway tie and rail, of a bed plate for the rail having a curved jaw to overlap the base of the rail, and a rabbet for receiving a fastening key, substantially as described. 4th. The combination, with a railway tie and rail, of a bed plate for the rail having a jaw to overlap the base of the rail, and of a key for locking the bed plate on the tie, substantially as described. 5th. The combination, with the rail and the metallic railway tie having vertical longitudinal flanges, provided with recess for receiving one edge of the base of the rail, and with key holes, of a bed plate for the rail having a jaw which overlaps the other edge of the base of the rail, and of the key passing through holes of the tie flanges, substantially as described for the purpose set forth. 6th. The combination, with the rail and the metallic railway tie having vertical longitudinal flanges provided with recesses and key holes, of the bed plate having the curved jaw and rabbet, and of the key passing through the holes of the tie flanges, substantially as described for the purpose set forth. 7th. The combination, with the rail and the metallic railway tie, of the bed plate having the curved jaw to overlap the base of the rail, and of the key having teeth on one edge, substantially as and for the purpose described. 8th. The combination, with the rail and the metallic railway tie, of the bed plate having the jaw to overlap the base of the rail, and having one edge chamfered or bevelled, and the key for locking the bed plate on the tie, substantially as described for the purpose set forth. 9th. The combination, with a railway tie and rail, of a bed plate for the rail having a jaw to overlap the base of the rail, and an upward extension on said jaw to support the head of the rail, substantially as described.

### No. 19,529. Telephone Time Signal System. (*Système Téléphonique de Signal Horaire.*)

John M. Oram, Dallas, Texas, U. S., 9th June, 1884; 5 years.

*Claim.*—1st. The method herein described of supplying standard time to any numbers of subscribers in a telephonic system, which consists in continuously making and breaking (or varying) the electrical condition of the main circuit into significant signals, having different intervals of time between the signals of the several groups denoting different sub-divisions of time, whereby the audible signals are made recognizable and significant as to time in each receiver, separate receiving clocks at each subscriber's station are dispensed with, and the simplicity and efficiency of the telephonic system preserved without interference or interruption, as described. 2nd. The method of striking standard time upon the bells of any number of subscribers in a telephone system, which consists in continuously making and breaking the electrical current into recognizable signals, having different intervals of time between the signals of the several groups and dividing this current at the central office upon opposite side of the annunciators, to prevent the dropping of the annunciator doors from said signals, as described. 3rd. The combination, with a telephone system and a suitable battery, of a clock, constructed as described, to repeat continuously throughout the whole day, and break or vary the current on the line into recognizable significant signals of time, as described. 4th. The combination, with the bells of the receivers, their several lines and their annunciators, and jacks of a repeating clock, a local circuit controlled thereby, an electromagnet operated by said circuit, a main line-circuit and the armature *B*, and spring *O* connected respectively to branch lines leading to the opposite sides of the subscriber's annunciators, as and for the purposes set forth. 5th. A telephone system without a normal ground circuit, as and for the purposes set forth. 6th. In a telephone time-signalling apparatus, a polarized annunciator, as and for the purposes set forth. 7th. A telephone time circuit with one pole of the battery connected with the system of telephone circuits, and the other pole connected with a circuit closer controlled by, and operating simultaneously with a standard clock, as and for the purposes set forth. 8th. A telephone time circuit without a normal ground circuit, one pole of the battery being connected to the telephone circuit, and the other to the circuit-closer of the telephone circuit, in combination with a standard clock, which connects electrically directly with the circuit-closer, substantially as specified.

### No. 19,530. Fluid Burning Lamp.

(*Lampe à Fluide.*)

Marmaduke Mathews, Toronto, Ont., 9th June, 1884; 5 years.

*Claim.*—1st. The burner *A* fixed to the long stationary wick tube *B*, in combination with the oil reservoir *F* provided with a hole *a*, through which the wick tube passes, and a balance weight calculated to carry the weight of the reservoir *F* when full, but arranged to force the said reservoir closer to the burner in proportion to the consumption of the oil contained within the reservoir, substantially as and for the purpose specified. 2nd. The oil reservoir *F* adjustably fitted on the wick tube *B* and provided with a float *G* extending into the lamp body *D*, which contains water or other fluid, the said float being made of such a size and so connected to the oil reservoir *F* that it forces by floatation the said reservoir up towards the burner *D* in proportion to the consumption of the oil within the reservoir. 3rd. The lamp body *D* arranged to support the syphon tubes to which the burners *A* are attached, in combination with the oil reservoir *F* floated within the lamp body *D*, substantially as and for the purpose specified. 4th. The oil reservoir *F* floated within the lamp body *D*, as specified, and provided with holes *a* for the passage of the central tube *I* provided with oil cup *J*, arranged substantially as and for the purpose specified.

### No. 19,531. Spring Gear for Vehicles. (*Suspension des Voitures sur Ressorts.*)

Robert McCaughlin, Oshawa, Ont., 9th June, 1884; 5 years.

*Claim.*—1st. A curved spring steel body loop *B* arranged to support the body *A* and clasp around a spring bar *C*, substantially as and for the purpose specified. 2nd. The combination, with the bolster *D*, of the steel plate *E* extending beyond its ends, so as to form a spring support for the side bars *F*, substantially as and for the purpose