

constructed as described, whereby they may be made to extend into both bolsters to secure the parts and hold the legs in vertical position, substantially as specified. 2nd. The combination, in a table having fixed ways, and a bolster of slides engaging said ways, one or more cross-bars or connections hinged to said slides, said cross-bar and bolster having each a threaded aperture, and a leg provided with a threaded portion, substantially as and for the purpose set forth. 3rd. The table having hinged, and fixed bolsters and screw-threaded legs, in combination with bolts or catches adapted to engage with depressions in said legs, substantially as and for the purpose set forth.

### No. 18,898. Excavator and Grapple.

(*Excavateur et Grappe.*)

William Burket, Etna Green, and William Summy, Leesburg, Ind., U.S., 15th March, 1884; 5 years.

*Claim.*—1st. The combination of the platform mounted upon wheels or casters, and having a forwardly extending bail or handle provided with an upturned fork or bracket at its front end, a bail hinged to downwardly projecting hangers in rear of the wheels of the platform or runner provided forwardly in front of the handle, having an upturned shoe frame hinged above the platform and having a forwardly extending lever provided with a trip catch at its front end, and a draft rope having a ring adapted to engage the trip catch, all arranged and operating substantially as set forth. 2nd. The combination, with the main platform mounted upon wheels or casters, substantially as shown, of the grapping frame hinged above the said platform, having a lever adjustable at various angles to the body of the said frame, and a mechanism for manipulating the said grapping frame, substantially as set forth. 3rd. The combination of the main platform, the hinged grapping frame having a forwardly extending lever, and a spring arranged to engage said lever, so as to throw the said grapping frame automatically in an upward and an outward direction from the platform, as set forth. 4th. The combination, with the platform having a rearwardly extending curved frame, of a curved holding frame, longitudinally adjustable upon the front part of the said platform, substantially as set forth. 5th. As an improvement in excavators and grapples, the combination of a platform mounted upon casters and having a forwardly extending handle provided with an upturned front ratchet having a grooved roller, an upturned curved frame at the rear end, and an adjustable curved frame at the front end of said platform, a forwardly extending bail hinged near the rear end of the platform and having an upturned shoe or runner, and a ring or eye through which passes a draft rope having a ring or link at its end, a grapping frame hinged above the platform and having an adjustable arm or lever, a spring engaging said lever and drawing it downward, and a catch or trip mechanism upon said lever adapted to engage the ring at the end of the draft rope, substantially as set forth.

### No. 18,899. Explosive Compound.

(*Composition Explosible.*)

Torrence W. Russell and Charles E. Tucker, Bradford, Penn., (Assignees of Harry D. Van Campen, Belmont, N. Y.,) U. S., 15th March, 1884; 5 years.

*Claim.*—An explosive compound consisting of tan bark, dextrine, erythric, potassium, nitrate and nitro-glycerine, substantially as described and for the purpose specified.

### No. 18,900. Rake Shoe or Runner.

(*Semelle ou Patin de Râteau.*)

Charles O. Dennen, (co-inventor with William C. Gray and Homer C. Nellis,) Piqua, Ohio, U.S., 15th March, 1884; 5 years.

*Claim.*—A detachable and adjustable shoe or guard for rake or harrow teeth, consisting of a shank A, curved or bent end B and perforated shoulder a, provided with a set-screw or other suitable clamping device, substantially as and for the purpose set forth.

### No. 18,901. Machine for Making Shingles, &c.

(*Machine à faire le Bardeau, &c.*)

Louis Fréchette, St. Hyacinthe, Que., 19th March, 1884; 5 years.

*Claim.*—1st. The combination of the frame C, channel iron *as*, slide having roller *as*, arm *ks*, link *is* and rack *fs*, constructed and arranged substantially as set forth. 2nd. The rack *fs* constructed and arranged to oscillate, as shown and described, and simultaneously operate a sliding frame C, substantially as and for the purposes set forth. 3rd. The combination of the rack *fs*, constructed as described and having projection *gs*, with pinion *as*, shaft *ls* and slide *ds*, substantially as shown and described. 4th. The combination of the shaft *ls*, actuated through a pair of conical pulleys, as described, to cause its speed in revolutions to be adjusted as described, with the clutch *bs*, pinion *as* and oscillating rack *fs*, substantially as described. 5th. The combination of the frame C actuated by a swinging arm, with said swinging arm having an adjustable attachment with frame *cs* as described, with link *is*, rack *fs*, pinion *as*, shaft *ls* and pulleys *as* and *as*, the whole constructed, arranged and operating substantially as described.

### No. 18,902. Combined Cradle and Seesaw.

(*Berceau et Bascule Combinés.*)

John W. Hill, Cairo, Ill., U.S., 19th March, 1884; 5 years.

*Claim.*—1st. In a combined cradle and seesaw, the combination of the rocker frame A and its side or longitudinal rockers B, B, other along the rocker frame, and the base or platform C, on which the rockers are arranged to work, substantially as specified. 2nd. The combination of springs D, D, with the platform C, the rocker-frame A, and the longitudinal adjustable seats *es*, *es*, essentially as described. 3rd. The adjustable blocks G, G, in combination with the rockers B, B, and rocker frame A, the spring D, D, and the bumpers J, J, substantially as specified. 4th. The combina-

tion, with the rocker frame A, of the seats E, E, and one or more extension boards F, the whole forming an extension cradle, essentially as described. 5th. The tester working cord H and pulley *i*, in combination with the springs D, D, the rocker frame A, with its attached rockers B, B, the seats E, E, independently adjustable along said frame, and the platform C, substantially as specified.

### No. 18,903. Skate. (*Patin.*)

Everett H. Barney, Springfield, Mass., U. S., 19th March, 1884; 5 years.

*Claim.*—1st. The combination of devices for clamping a skate to the heel and sole of a boot, substantially as described, with a rotating crank-stud connected with, and located in a central line between said devices, and a lever connected with said stud for fastening and unfastening, as set forth. 2nd. The combination of devices for clamping a skate to the heel and sole of a boot, substantially as described, with a rotating crank-stud connected with, and located in a central line between said devices, and a lever connected with said stud for fastening and unfastening adopted by means, substantially as described to be engaged with the clamp-connections when swung into line therewith, substantially as set forth. 3rd. The combination, with the rotatable screw-rod *n* having a groove *7* around it, of the heel-clamp *u* having the split lip *d* thereon, adapted to have its semi-divided portions engage in said groove, substantially as set forth. 4th. The heel-plate *v*, the cheek-pieces *i*, *i*, secured to said heel-plate, and each provided with the lip *z*, in combination with the heel-clamp *u* having the lip *d* thereon, and the screw-rod *n*, all as set forth. 5th. The combination, in a skate, of heel and sole clamps, substantially as described, with a rotating crank-stud pivoted in said sole-clamps, a nut-link pivoted to the crank-pin of said stud, a longitudinal rotatable screw-rod connected to said heel-clamps, and a lever for fastening and unfastening connected with said crank-stud, having its free end movable in a horizontal plane in either direction from said screw-rod, all as set forth.

### No. 18,904. Hand Field and Lawn Rake.

(*Râteau à Bras pour Prairie et Jardin.*)

Joseph Moore, Greely, Cal., U. S., 19th March, 1884; 5 years.

*Claim.*—1st. The rake head provided with a suitable handle socket and formed of two wrought metal strips *a*, *a*, with upwardly tapered semi-circular depressions *b*, *b*, and riveted upon the top of the rake teeth, substantially as and for the purpose described. 2nd. The rake teeth formed of tubular wrought metal brought to a taper at tops, rounded at points and riveted upon the rake head, substantially as and for the purpose described. 3rd. The bow brace of the rake formed of a piece of inverted U-metal, bent or bowed and flattened at its middle, and riveted to the handle and also flattened at its ends, and bent down and riveted to the head A formed of strips *a*, *a*, *b*, *b*, rake teeth B and the U-metal bow brace E, substantially as and for the purpose described. 4th. A metallic rake with its head formed of two wrought metal ribbed strips *a*, *a*, having upwardly tapered semi-circular depressions *b*, *b* formed in them, and provided with a wrought metal handle socket C and with separated or single wrought metal hollow teeth B confined between the strips by rivets, and kept from vertical movement by being riveted upon the top of the strips, substantially as described. 5th. The combination of the wrought metal flanged handle socket C, the wrought metal rake head A formed of ribbed strips *a*, *a*, and the tubular rake teeth B, substantially as described.

### No. 18,905. Packer for Flour, Bran, &c.

(*Presse d'Emballage pour la Farine, le Son, &c.*)

Jacob Frysinger and Benjamin C. Frysinger, Rock Island, Ill., U. S., 19th March, 1884; 5 years.

*Claim.*—1st. The combination, with the press-box and packing case, of the follower having the flat bar attached thereto, and the friction rollers for operating the same, substantially as shown and described. 2nd. The combination, with the follower and its flat bar, of the stationary friction roller, the sliding frame carrying a second friction, and means for holding said frame in position for clamping the bar between the rollers, substantially as shown and described. 3rd. The combination, with the follower and its bar, and the friction rollers, of the spring catches arranged on opposite sides of said bar, and adapted to engage with notches in the bar to hold the same at a given position, substantially as shown and described. 4th. The press-box having a chute and slide in one side, and in another side an opening provided with a sliding apron, for placing a head between the compressing follower and the bran or material to be compressed, substantially as shown and described. 5th. The frame having the grooved platform and hinged sides, combined with the ribbed slide having means for holding a packing case, substantially as shown and described. 6th. The packing case having perforations to allow air to escape from the material being packed therein, and through which a head may be nailed in the case, substantially as shown and described.

### No. 18,906. Velocipede. (*Velocipède.*)

John M. Staples, Roseville, Va., U. S., 19th March, 1884; 5 years.

*Claim.*—1st. In combination with the axle A having crank *a* and friction roller *az*, and with the wheels A rigidly hung upon said axle, the pitman *az*, wheels I, I, connected by the rod J, and gear *iz*, and the gears F, G, H, the crank K and frame D, as and for the purpose set forth. 2nd. In combination with the forward axle pivoted at the king-bolt, the frame D and segment D1, the shaft D2 having cranks *d*, *d*, the spring bolt *dh*, the bar *m* and links *d3*, as and for the purpose set forth.

### No. 18,907. Manufacture of Moulded and Plastic Ware. (*Fabrication d'objets en Céramique.*)

Job F. Peacock, New York, N. Y., U. S., 19th March, 1884; 5 years.