

No. 31,874. Draft Spring. (*Ressort de traction.*)

Edward L. Hilderbrand, Henry Rost and Charles L. Davis, Sullivan, Ind., U.S., 1st August, 1889; 5 years.

Claim.—1st. The combination, in a draft evener of the sleeve designed to be secured to a shaft, and provided at its front end with a rectangular opening, a draft bar rectangular in cross section terminating at its front end in a trace hook, which is bent laterally at an angle to the shank, and a spring interposed between the front of the sleeve and the rear end of the shaft, substantially as and for the purpose described. 2nd. A draft evener comprising the base plate, the sleeve secured thereto and provided at its front end with a rectangular opening, the draft bar rectangular in cross section and having a trace hook *e* at its front end, and extending out at right angles to said bar, and provided back of said trace hook with an annular flange, and a spring interposed between the rear end of the draft bar and the front of the sleeve, substantially as described.

No. 31,875. Life Saving Apparatus.

(*Appareil de sauvetage.*)

Samuel Pemberton and Alexander M. McKay, Alpena, Mich., U.S., 1st August, 1889; 5 years.

Claim.—1st. A life preserver adapted to be worn beneath the clothing, consisting of two hollow belts communicating with each other by two or more hollow bands and a hollow bulb for inflating the same, substantially as described. 2nd. In a life preserver consisting of two hollow belts, with two or more connecting hollow bands, an inflating bulb provided with two valves, and an independent locking valve with thumb screw, substantially as described. 3rd. In a life preserver consisting of hollow belts and bands, adjustable shoulder straps attached to the upper belt, also a discharge valve with a thumb screw for locking the same when the belts are inflated, substantially as described. 4th. In a life preserver, the combination of an inflatable harness consisting of hollow belts, and bands freely intercommunicating, a hollow bulb with valves, and lock valve with thumb screw, a discharge valve with thumb screw, upper belt provided with shoulder straps, two belts provided with spring hooks and eyes for fastening and adjustable straps attached to said hooks, substantially as and for the purposes represented and described.

No. 31,876. Combination Lock.

(*Serrure à combinaison.*)

Irvine A. Shaw, Kinsley, Kan., U.S., 1st August, 1889; 5 years.

Claim.—1st. The combination, with a sliding bolt having a longitudinally extending slot, and a circular opening communicating with the inner end of said slot, of a shaft having a flat part, a circular tumbler having a slot receiving said flat part and turning in said circular opening, whereby, when said flat part and tumbler slot are perpendicular to the bolt slot, the bolt will be locked, and when turned flatwise into the plane of the bolt slot, the bolt may be retracted, said tumbler sliding with the bolt, substantially as set forth. 2nd. In a combination, lock, the combination with a locking bolt provided with a circular slot connecting with a longitudinal slot, of a shaft provided with knobs and having a flat part, a tumbler held on the said flat part and fitting into the circular slot of the locking bolt, a ratchet wheel held on the said shaft and turning with it, and a spring engaging with its free end the teeth of the said ratchet wheel, substantially as shown and described. 3rd. In a combination lock, a locking bolt provided with a circular slot continuing into a longitudinal slot, and a knob shaft provided with a pin for operating said locking bolt, in combination with a shaft provided with a knob on the inside and on the outside of the door, and also having a flat part adapted to engage the longitudinal slot of the said locking bolt, a slotted tumbler held on the said flat part and fitting into the circular slot of the said locking bolt, a ratchet wheel held on and turning with the said shaft and provided with a space in its periphery, said space being formed by the breaking out of several teeth, and a spring engaging with its free end the teeth and space of the said ratchet wheel, substantially as shown and described. 4th. In a combination lock, a locking bolt provided with a circular slot continuing into a longitudinal slot, and a knob shaft provided with a pin for operating said locking bolt, and a spring bearing against said locking bolt, in combination with a shaft provided with a knob on the inside and on the outside of the door, and also having a flat part adapted to engage the longitudinal slot of the said locking bolt, a slotted tumbler held on the said flat part and fitting into the circular slot of the said locking bolt, a ratchet wheel revoluble on the said shaft and provided with a space in its periphery, said space being formed by breaking out several teeth, a knob screwed on the shaft against said ratchet wheel and clamping it in place, and a spring engaging with its free end the teeth and space of the said ratchet wheel, substantially as shown and described.

No. 31,877. Joint for Folding Chairs.

(*Joint pour fauteuils pliants.*)

Ausborn F. Old, Brooklyn, N.Y., U.S., 1st August, 1889; 5 years.

Claim.—The herein described pivot for folding chairs consisting of two plates E, F, having projecting ears therefrom, by which the plates may be secured the said plates, constructed the one with a central stud to form the pivot, and the other with a corresponding central recess to form the seat for the pivot, one plate constructed with studs L, M on its face, the other plate constructed with recesses J, K concentric to the pivot, and corresponding to the said two studs L, M, the end of the said recesses forming respectively shoulders *a, b*, against which the said studs may come to a bearing, substantially as described.

No. 31,878. Wax end Needle.

(*Soie métallique de fil poissé.*)

John T. Smith, Bellevue, Mich., U.S., 1st August, 1889; 5 years.

Claim.—1st. As an improved article of manufacture, the metallic bristle for the purpose set forth, made of a single piece of wire which is bent upon itself and twisted to form an eye at one end, the ends of the wire forming the point of the bristle being connected to each other by solder. 2nd. A metallic bristle made up of a single piece of wire, which is bent upon itself and twisted, said bristle having two or more eyes formed in the body portion, the ends of the wire being secured to each other by solder or equivalent material, and pointed, substantially as and for the purpose specified.

No. 31,879. Fifth Wheel and Friction Plate of Vehicle. (*Rond d'avant-train et plaque de frottement de voiture.*)

Alexander Smith, London, Ont., 1st August, 1889; 5 years.

Claim.—As an improvement in fifth wheels and friction plates of vehicles, the above described method of attaching the upper and lower plates D, A centrally by means of double projection B on lower plate A, which is received in double socket C in upper plate D, through which a centre bolt passes, and is attached directly to the spring or to the axle, substantially as shown and specified.

No. 31,880. Harrow. (*Herse.*)

Thomas Bellaire, Belle River, Ont., 1st August, 1889; 5 years.

Claim.—1st. In combination with a disk harrow, the spindles carrying disk G being placed one forward of the other, and with their inner ends overlapping, for the purposes hereinbefore set forth. 2nd. In combination with a disk harrow, the rods J₁ and J₂ with their rear ends in connection with the disk spindles, and the forward ends of each pair connected by a chain M passing over a draw block L, substantially as and for the purposes hereinbefore set forth. 3rd. In combination with a disk harrow, the lever K passing through a slot in the tongue A and pivoted therein, the lower end of the lever being connected to the forward ends of the inner rods J, J₁, substantially as described and for the purposes specified. 4th. The combination, in a disk harrow, of the arm B provided with a collar bolt E, the clips G having recesses for the reception and oscillation of collar bolt E, substantially as described and for the purposes set forth. 5th. The combination, in a disk harrow, of the weighted lever arm O, pivoted to arm B connected by the chain R to the disk I on the outer end of spindle, substantially as and for the purposes specified.

No. 31,881. Street or Station Indicator.

(*Indicateur de rue ou de station.*)

William P. Williams, William P. Johnson and Arthur Crandell, Chicago, Ill., U.S., 1st August, 1889; 5 years.

Claim.—1st. A street or station indicator consisting of a case A, and a revoluble displaying drum journaled within said case, and consisting of a central shaft *b*, disks *a, a'* mounted upon said shaft, and provided with seats upon their inner surfaces, rods *e* of flexible material having their ends sustained within said seats, whereby said rods may be readily sprung into and out of place and display sheets attached to said rods, substantially as described. 2nd. A street or station indicator consisting of an inclosing case A, a revoluble display drum journaled within the upper part of said case, and provided with an annular series of dependent flexible display sheets, said sheets being loaded at their lower ends, and a spring actuated swinging bar resting upon said sheets and connected by a pivotal joint to the inside of the case, and engaging consecutively the weighted ends of the display sheets, substantially as described. 3rd. A street or station indicator consisting of an inclosing case A having a glass door at its lower part, a revoluble display drum journaled within its upper part, said drum consisting of a central shaft *b*, disks *a, a'* mounted upon said shaft and provided with an annular series of seats upon their inner surfaces, rods *e* of flexible material having their ends sustained within said seats, display sheets loaded at their lower ends and attached to said rods, a swinging bar connected by a pivotal joint to the inside of the case and resting upon said sheets, and a spring *k'* intermediate between said bar and case, substantially as described. 4th. A street or station indicator consisting of an inclosing case A, and a revoluble display drum journaled within said case, and composed of a central shaft *b*, disks *a, a'* mounted upon said shaft, one of said disks having upon its periphery a series of ratchet teeth, a sliding bar J journaled within said case and projecting therefrom, said bar being provided with a spring pawl engaging with the ratchet teeth, and with stops for limiting its throw, and display sheets dependent from the drum, substantially as described. 5th. A street or station indicator consisting of an inclosing case A, a revoluble display drum journaled within said case, and composed of a central shaft *b*, provided with a series of longitudinal grooves or channels, disks *a, a'* secured to the ends of said cylinder, and having on their inner surfaces respectively annular seats and flexible rods *e* adapted to lie within the grooves of the cylinder and have their ends secured in said seats, substantially as described.

No. 31,882. Liquid Counter.

(*Mesureur de liquides.*)

François Lauzier, St. Germain de Rimouski, Qué., 1st August, 1889; 5 years.

Résumé.—Dans un mesureur des liquides, la combinaison du tube A, ouvert à l'atmosphère à son extrémité supérieure, les côtes H, H', le repère D, les barres transversales C, le coude B, et les robinets E et F, le tout tel que décrit et pour les fins mentionnées.