

## C0NTENTS.


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## INVENTIONS PATENTEID.

NOTE-Patents are granted for 15 years. The term of years for which the fees have been paid, is given after the date of the patent.
No. 16,882. Improvement in Horse Rakes. (Perfectionnement des râteaux à cheval.)
Joseph E. Beauchemin, Sorel, Que., 12th June, 1883; 5 years.
Claim.-1st. The combination of the double flextured hand lever L , pivoted at the end $l_{2}$ to the frame of the rake, and connected to the dumping bracket $D$ centered upon the rake-head $H$ by links $l_{4}$, and having the draft lever N pivoted to the said lever L, connecting to the foot lever $F$ in such a manner as to form a series of dead centres, which cannot be overcome by the draft power acting on the draft lever $N$, in a forward direction, said lever $H$ being further supported by a pin $l_{2}$ resting upon the bars B1, or other support, when the said lever is depressed. 2nd. The combination, with the wheeled axle, of a horse rake supporting the rake-head H, pivotally supporting the rake teeth $T$ and having, centered upon it, a dumping bracket $D_{\text {. }}$ operating the lifting bar $R$, which is provided with suitable means of lifting the teeth, the shaft $S$, cross-bars $B$ and longitudinal bars $B r$ forming the frame, the dumping device consisting of a hand lever $L$ and foot lever $F$, connected by links $N$, acting as draft lever, the said and foot lever $F$, connected by links $N$, acting as draft lever, the said luer Langnected with the dumping bracket $D$ by pinks 4 . 3rd. In a and pivotally connected to a hand lever by links $N$, acting as draft lever, which said conneotions form a locking device immovable by the draft power, while easily manipulated by the said foot or hand levers. 4th. In a dumping device for horse rakes, the wheelbarrow handlever H , its end 12 pivoted to the frame and being, at its rearward flexture, connected to the dumping bracket by suitable links and, at its forward flexture jointed to a draft lever, its shape designed to form dead centres with the foot lever and connecting draft lever, form dead centres with the foot lever and connecting draft lever, When in its highest and lowest position, a
described and for the purpese set forth.

## No. 16,883. Feed Water Heater and Purifier. (Chauffeur et épurateur de l'eau d'alimentation.)

Robert W. Jones, London, Ohio, U. S., 14th June, 1883 ; 5 years.
Claim.-1st. An improved feed water heater and purifier consisting of a cylinder divided into two unequal chambers by a vertical perforated partition, the smaller one of which is provided with the exhaust and water exit pipe, and the larger one with steam and water supply pipes, and with sediment-collecting pans having perforated slides arranged one above the other, and a grating below the said pans, as set forth. 2nd. The combination, with the cylinder provided with the vertical partition, of the purifying chamber provided with the pans having perforated sides and placed one above the other, and the grating arranged below the pans, as set forth.

## No. 16,884. Improvements in Car-Couplings.

(Perfectionnements aux accouplages des chars.)
Charles H. Pelton and John N. Wheeler, Grand Rapids, Mich., U.S., 14th June, 1883 ; 5 years.
Claim. - The eccentric A turning on bolt $D$, and provided with the shoulders $b$ and beveled point $a$, in combination with the draw-bar
having lugs $E \mathrm{E}$, the connecting link C and lever B , with the fulcrum having lugs E E, the connecting link $C$ and lever $B$, with the fulcrum
H , all constructed and arranged substantially as described and for the purposes set forth.
No. 16,885. Improvements in Sickle Grinders. (Perfectionnements aux rémouleurs dos lames des faucheuses.)
William S. Ingraham, Waukegan, Ill., U. S., 14th June, 1883 ; 5 years.

Claim.-Ist. The combination, with the frame of a grindstone and the pivoted joint-bar or connecting piece $P$, of the laterally movable frame $K$ and the flanged holder $H$, pivoted to said frame and angularly adjustable thereon, substantially as specified. 2nd. The siokleholding attachment for grindstones consisting of the joint-bar or connecting piece $P$, its pivot rod, the latterally movable frame $K$ hinged to said connecting piece, the flanged holder $H$ pivoted to the frame $K$, and its lever cam $M$, substantially as specified. 3rd, The combination, with an angularly adjustable holder and laterally-movable frame, to which said holder is pivoted, of a joint-bar or connecting piece having bearings at its front edge, for the slide-journals of said frame, and pivoted at its rear edge to the grindstone frame, substantially as specified. 4th. The combination, with the grindstone frame $A$ and its stop. , of the pivoted connecting piece P , the laterally movable its stop $S$, of the pivoted connecting piece $P$, the laterally movable
frame $K$ and angularly adjustable holder $H$, substantially as specified.

## No. 16,886. Improvements on Screw-Drivers. (Perfectionnements aux tourne-vis.)

Martin B. Crawford, Terre Haute, Ind., U. S., 14th June, 1883 ; 5 years.
Claim.-1st. The combination, with a tubular stock or barrel provided at itg end with interior longitudinal grooves, of a suitable bitplate seated in said grooves, as set forth. 2nd. The combination, with a tubular stock or barrel provided at its end with 1 -shaped points and interior longitudinal grooves, of a bit-plate seated in said grooves and provided with notches in its sides to receive the said points, as set forth. 3rd. The combination, with the tubular stock or barrel provided at its inner end with a tapering annular recess, of the socketed wooden handle and a tapering clamping cap or ferrule, as and for the purpose set forth. 4th. The tubular stock or barrel provided at its inner end with an annular tapering recess, and having a tapering cap or ferrule secured thereto by a transverse pin or rivet, in combination with the socketed wooden handle having a transverse longitudinal slot, as and for the purpose set forth, 5 th. The combination of the tubular stock or barrel, the bit-plate seated in the end of the same and having a curved notch or recess in its inner end, and the longitudinally sliding rod having a pair of hinged clamping jaws bearing against the inner notched end of the bit-plate, as set forth. 6th. In a screw-driver of the class described, the described clamping jaws, stamped or constructed of sheet metal, and consisting essentially of a longitudinally curved or corrugated body or shank, an approximately U-shaped notched hend bent substantially as shown, at an angle to the body, and a lug projecting laterally from the shank or stem and having a perforation or hinge-hole, as set forth. 7th. The combination of the tubular barrel, the bit seated in the end of the same, the slide rod bifurcated and perforated at its outer end, the clamping jaws having stems provided on opposite sides with laterally projecting perforated lugs, and means for hinging said clamping jaws projecting perforated ugs, and means or hanging said champlat slide rod, as set forth. 8th. The combination of the slide
to the rod bifurcated and perforated at its outer end, the clamping jaws having perforated hinge luge fitted in the bifurcated end of the slide rod, and a spring coiled around said slide rod and having itg outer end bent so as to form an arm extending through the perforations in the slide rod and clamping jaws, whereby the latter are hinged to the former and the upper end of the spring connected to the outer end of the slide rod, as set forth. 9th. The combination of the tubular stock or barrel, the bit seated in the same, the longitudinally sliding rod carrying a pair of hinged clamping jaws, and a spring coiled rod carrying a pair of hinged clamping jaws, and a spride rod, and around and having its upper end connected to said side rod, and having its inner end hooked over the lower end of the tubuiar barrel, as set forth. 10th. The combination of the tubular stock or barre, pair of hinged clamping jaws, a spring coiled around and forcing the said slide rod in an inward direction in the tubular stock, and a suitable handle permanently attached to said slide rod, whereby the latter may be forced outwardly against the tension of the spring, as set forth. 11th. In a screw-driver of the class described, the combination, with the slide rod carrying the clamping jaws, of the described thumb-piece or handle stamped or struck up from sheet metal, and provided with laterally projecting upturned lugs or flanges clamped or clinched around the inner end of said slide rod, and thereby bracing the said thumb-piece in position at an angle to the said slide rod, as set forth. 12 th. The combination of the tubular stock or barrel, the bit seated in the end of the same, the longitudinally sliding rod carrying the clamping jaws and provided, at its inner end, with a

