

and having the pivots in the cross plates, the spring bearing against one side of the drawhook arm, and the shaft having the flattened wings or arms bearing against the same side of the drawhooks, substantially as described.

No. 35,733. Holder for Bolts. (*Arrête-écrou.*)

Frank A. Loyet, James O'Connell, (assignees of Charles L. Edwards), all of Collinsville, Illinois, U.S.A., 9th January, 1891; 5 years.

Claim.—A bolt-holder, comprising the lever having one end chisel pointed to engage the head of a bolt, and provided with a series of teeth, the guard having its ends secured at the ends of the series of teeth, the hook provided at one end with an eye and having at the other end a head, and the link confined to the lever by the guard, and secured in the eye of the hook, and provided at one end with a beveled edge to engage the teeth of the lever, substantially as described.

No. 35,734. Apparatus for Preventing the Incrustation of Steam Boilers. (*Appareil pour empêcher les incrustations dans les chaudières à vapeur.*)

Henry Clay Nye and Emil Laas, both of Syracuse, New York, U.S.A., 9th January, 1891; 5 years.

Claim.—1st. The improved preventive of incrustation of steam boilers, consisting of one or more pans situated in the upper part of the boiler, and the feed water pipe having its discharge end in one end of said pan or pans as set forth. 2nd. The combination, with a steam boiler, of two or more pans disposed successively end to end lengthwise of the boiler in the upper part thereof, and inclined toward one end, the feed water pipe having its discharge end in the elevated end of said pans, and a blow-off pipe connected to the lower end of said pans, substantially as described and shown. 3rd. The combination, with a steam boiler, of the pans P, P', situated in the upper part of the boiler and arranged end to end, and communicating with each other at their junction, the overflow shelf b, in one of said pans, the feed water pipe a, having its discharge end in one end of said pans, and the blow-off pipe a', connected to the opposite end of the pans, substantially as described and shown.

No. 35,735. Seat for Cars. (*Siège de chars.*)

Arthur M. Richards, Bloomington, Illinois, U.S.A., 10th January, 1891; 5 years.

Claim.—1st. The combination, of a seat back, having an opening therein, to which is adapted a rotatable panel, fixed pivots projecting from the sides of said seat back opening through the sides of the panel-frame and projecting within said panel-frame, a flat spring securing said pivot and extending parallel to the panel-faces and within said panel-frame, and fastenings for the ends of said springs secured within said panel-faces, whereby both faces of said panel are left unobserved, substantially as described. 2nd. The combination, of a seat back, having an opening therein, to which is adapted a rotatable panel, fixed pivot projecting from the sides of said panel frame and projecting within said panel-frame, a flat spring secured to said pivot and extending parallel to the panel-faces and within said panel-frame, and corner-braces with said panel-frame having recesses for the ends of said spring, whereby the latter is secured to said panel, substantially as described.

No. 35,736. Snow Shoe for Sleigh Runners. (*Raquette pour patin de traîneau.*)

John Robertson Campbell, Clyde, Minnesota, U.S.A., 10th January, 1891; 5 years.

Claim.—1st. The combination, with a sleigh-runner, its narrow bearing-shoe, and the bolts confining said shoe to the runner, of an independent wide metallic plate interposed as a snow-shoe between the runner and its bearing-shoe to extend the length thereof, and have elongated apertures formed longitudinally therein to register with the bolt-holes in the runner, substantially in the manner and for the purpose herein set forth. 2nd. The combination, with a sleigh-runner and its narrow bearing-shoe, of an independent wide metallic plate interposed as a snow-shoe between the runner and its bearing-shoe bolts, confining the bearing-shoe and interposed snow-shoe jointly to the runner, and lateral brackets secured to the runner to bear upon and re-enforce the top of the snow-shoe, substantially in the manner and for the purpose herein set forth.

No. 35,737. Filter for Water. (*Fillre.*)

George Harvey, Toronto, Ontario, Canada, 10th January, 1891; 5 years.

Claim.—1st. In a water filter, the combination of a reservoir a fitted with an inlet pipe h, filters composed of porous stone and a compressed carbonized substance, the upper reservoir a', fitted with an outlet pipe connected to a tap, the glass float d', the valve e', valve-stem f, having an enlarged head f', the guide-collar e'', the carbonized filter g', placed between the top d of the reservoir and the perforated bottom g, of the ice-chamber E, and the said ice-chamber, substantially as and for the purpose set forth. 2nd. In a water filter, the combination of a water chamber a fitted with an inlet pipe porous stone filter b, and upper reservoir a', fitted with an outlet pipe connected to a suitable tap, substantially as and for the purpose set forth. 3rd. In a water filter, the combination of the reservoir a, the porous stone filters, and a compressed carbonized filter c, placed between said stone filters and an upper reservoir a' provided with an outlet connected to a suitable tap, substantially as and

for the purpose set forth. 4th. In a water filter, the combination of a lower reservoir a, fitted with an inlet or in-take pipe porous stone filter, compressed carbonized filter c, a second porous stone filter b, an upper reservoir a', provided with an outlet connected to a tap, and air-hole e, substantially as and for the purpose set forth. 5th. In a water filter, the combination of a lower reservoir a fitted with an inlet pipe, a porous stone filter b, compressed carbonized filter c, a second porous stone filter b, an upper reservoir a', provided with an outlet connected to a tap, and air-hole e, fitted with a valve e', substantially as and for the purpose set forth. 6th. In a water filter, the combination of a lower reservoir a, fitted with an inlet pipe, a porous stone filter b, compressed carbonized filter c, a second porous stone filter b, an upper reservoir a', provided with an outlet connected to a tap, a float d' and an air-hole e fitted with a valve e', substantially as and for the purpose set forth. 7th. A water filter, fitted with a tap D, consisting of a water chamber d, in which is located a valve L and valve-seat m, a plunger l, passing through a washer l', and connected at one end to the valve L, and at the other to an end block l'', and operated by a lever O, substantially as and for the purpose set forth. 8th. A water filter fitted with a tap D, consisting of a water chamber d'', in which is located a valve L, a valve seat m, a plunger l connected to the valve L, and operated by a lever O, pivoted to the frame of the tap, substantially as and for the purpose set forth. 9th. In a water filter, the combination of a lower reservoir a, a porous stone filter b, a compressed carbonized filter c, a second porous stone filter b', an upper reservoir a', fitted with a port b'', a water pipe c', connecting the port b'' to the water chamber d'', of the tap D, with the tap D, consisting of a water chamber d'', in which is located a valve L, and a valve seat m, a plunger l passing through a washer l', and connected at one end to the valve L, and at the other to an end block l'', and operated by a valve O, substantially as and for the purpose set forth.

No. 35,738. Harvester Binder.

(*Moissonneuse-lieuse.*)

Frederick Duncan Mercer and John Smith Mercer, both of Alliston, Ontario, Canada, 12th January, 1891; 5 years.

Claim.—1st. The combination, with a series of rake-heads connected together by endless chains or bands of sprocket wheels journaled on the inside of the side boards and above the back of the elevating table of a grain binder, substantially as and for the purpose specified. 2nd. In a harvester, the combination, with a series of rake-heads connected together by endless chains or bands, of sprocket wheels journaled on the inside of the side-boards and above the back of the elevator, combined with a shield extending across the elevator and underlying the lower sprocket-wheel, substantially as and for the purpose specified. 3rd. In a harvester, a series of rake-heads pivoted in and connected together by endless chains carried by sprocket wheels located at the top and bottom of the elevator, in combination with a guide-way extending from the lower sprocket wheel to a point opposite the centre of the top sprocket wheel, and the two spindles extending from the end of the rake head, one forward relatively to the motion of the chain, and the other to the rear of the axis of the rake-head, the rear spindle being swivelled in the chain, and the forward spindle being free, substantially as and for the purpose specified. 4th. In a harvester, a series of rake-heads connected by an endless chain or band, each rake-head having a series of rake-teeth fixed to it, and a cross-head formed on one of its ends with two spindles, extending from the said cross-head, one of the said spindles being free and placed forward of the axis of the rake head relatively to the motion of the chain, and the other being swivelled to the chain, a guide-way formed on the inside of the side boards and above the back of the elevator, said spindles travelling on the guide-ways, substantially as and for the purpose specified. 5th. In a harvester, a series of rake-heads connected together at each end by an endless chain or band carried by sprocket-wheels located at the top and bottom, above the back of the elevator, in combination with a curved guide or shield extending across the elevator and underlying the lower sprocket-wheel, and a plate extending across the grain-table at the base of the elevator in front of said shield, substantially as and for the purpose specified. 6th. In a harvester, the combination of the sprocket-wheels and endless chains, the rake-heads carrying teeth and having cross-heads at one end formed with spindles, one of said spindles being swivelled in the chain and the other free, said cross-head being formed with a tail on the side adjacent to the swivelled spindle, a lug or block against which said tail is adapted to contact to throw the free spindle forward, the guide-ways for said spindle, and the curved guide for guiding the spindles around the lower sprocket-wheels, substantially as described. 7th. In a harvester, the combination of the endless chains, and rake-heads, having cross-heads at one end formed with spindles, one of said spindles being swivelled in the chain, and the other free, the cross-heads being formed with a tail on the side adjacent to the swivelled spindle, with the lug or block adapted to be struck by said tail for throwing the free spindle forward, and the guideways for said spindles, substantially as described. 8th. In a harvester, the combination, with a series of rake-heads connected together by endless chains or bands, of sprocket-wheels journaled on the inside of the side-boards and above the back of the elevator, and a curved guide underlying the lower sprocket-wheel, substantially as and for the purpose specified.

No. 35,739. Extractor for Faucets.

(*Extracteur de robinet.*)

Robert Douglass Black, Constantia, New York, U.S.A., 12th January, 1891; 5 years.

Claim.—1st. The combination, with the handle and a fulcral foot pivotally connected thereto, of a concave jaw pivotally mounted upon the inner end of the lever, and another jaw mounted upon draw bars pivotally connected to the lever. 2nd. The combination, with the handle and a fulcral foot pivotally connected thereto, of a concave jaw pivotally mounted upon the inner end of the lever, and another jaw adjustably mounted upon draw-bars pivotally connected