

the rear of the driving wheels of the locomotive, whereby an air-blast may be directed upon said rails at these points and sand and dirt thus removed, substantially as set forth. 2nd. The combination with an air-pumping apparatus on a locomotive, of pipes leading to points above the railway-rails to the rear of the driving wheels of said locomotive and there terminating in nozzles, the orifices of which nozzles are narrow slits and arranged diagonally to the railway tracks, substantially as set forth. 3rd. The combination of an air-pumping apparatus on a locomotive and pipes leading from said air-pumping apparatus to points near to the rails at the rear of the driving wheels of said locomotive, where said pipes are provided with discharging orifices or nozzles arranged to one side of and quartering to said rails, substantially as and for the purpose set forth.

### No. 37,931. Device for Feeding Thread to Knitting Machines. (*Appareil d'alimentation pour machines à tricots.*)

The S. B. Wilkins Company, Rockford, Illinois, assignee of John R. Bridges, Findlay, Ohio, both in U.S.A., 9th December, 1891; 5 years.

*Claim.*—1st. In a thread-feeding mechanism for knitting machines, the combination of guide-eyes for two threads, an interposed trough or bearing for the threads, and an arm provided with means for nipping one of the threads, and having an end interposed between the two threads, substantially as specified. 2nd. The combination of guide-eyes for two threads, a trough interposed between said guide-eyes, and a pivoted arm having a cutting-knife, and a guide-eye for one of the threads, all substantially as specified. 3rd. The combination of guide-eyes for two threads, an interposed trough or bearing for said threads, and a lever having an arm carrying a guide for one of said threads, and a cutting or nipping blade for the other thread, and a second arm whereby said lever is operated, all substantially as specified.

### No. 37,932. Hydrant Valve.

(*Souape de borne fontaine.*)

Edward Lewis, assignee of William Errington, both of Salisbury Buildings, Bourke Street, Melbourne, Victoria, Australia. 9th December, 1891; 5 years.

*Claim.*—1st. My improved valve for hydrants having a screwed spindle or rod by means of which the valve is opened or closed substantially as herein described and as illustrated in my drawings. 2nd. The combination of valve A, spindle B, coupling nut D, and the nut and casing C' and C'', as and for the purposes described and as illustrated in my drawings.

### No. 37,933. Plow Riding Attachment.

(*Siège de charrue.*)

William Erwin Stafford, Southwold, and Wesley A. Stafford, Shedden, both in Ontario, Canada, 9th December, 1891; 5 years.

*Claim.*—1st. The combination of an ordinary walking plough and a "plough riding attachment" secured to the plough-beam with clamps or other mechanism which will not effect the utility of the plough when used without the attachment, substantially as and for the purpose hereinbefore set forth. 2nd. The combination in a "plough riding attachment," of an adjustable land or carrying wheel, with an adjustable guide wheel, substantially as and for the purpose hereinbefore set forth. 3rd. The combination in a "plough riding attachment" of a driver's seat and an operating lever so arranged that the operating levers may be placed on either side of the seat, substantially as and for the purpose hereinbefore set forth.

### No. 37,934. Brush for Liquid Blacking.

(*Brosse à souliers.*)

George Sigfried Wolff, Philadelphia, Pennsylvania, U.S.A., 9th December, 1891; 5 years.

*Claim.*—1st. The within described swab or brush for bottles containing alcoholic blacking compounds, said swab or brush having a suspending wire provided with a coating insoluble in alcohol, substantially as specified. 2nd. The within described swab or brush for bottles containing alcoholic blacking compounds, said swab or brush having a suspending wire provided with a coating of glue, substantially as specified. 3rd. The within described swab or brush for bottles containing alcoholic blacking compounds, said swab or brush having a wire suspended from the cork and provided with a coating insoluble in alcohol and extending continuously over both the wire and the bottom of the cork, substantially as specified.

### No. 37,935. Axle Bearing. (*Coussinet d'essieu.*)

Samuel Stephen Arnold, Toronto, Ontario, Canada, 9th December, 1891; 5 years.

*Claim.*—1st. A collar B, formed on the axle A, and cupped or recessed to receive the hub D, formed on the end of the journal box C, hard balls E, placed in the annular recess formed in the hub D, in combination with a cupped nut G, screwed onto the end of the axle A, and having a projection a, to complete the annular closed recess formed between the cupped end of the journal box C, and the said nut into which recess the hard balls E are inserted, substantially as and for the purpose specified. 2nd. A journal box C, having a cupped end close to the cupped nut G, the annular closed recess formed between the two being filled with hard balls E, in combination with a cap H, screwed onto the end of the axle A, to overlap the end of the journal box C, and butt against the nut G, substantially as and for the purpose specified. 3rd. A journal box having its end cut, a nut screwed onto the axle of the said journal box

and cut to form with the cupped end of the journal box, an annular recess for the reception of hard balls by which the end of the journal box is supported, a washer fitting onto the screwed end of the axle so that it cannot revolve thereof, and a nut or cap designed to jamb the washer against the inner cupped nut, substantially as and for the purpose specified.

### No. 37,936. Washing Machine.

(*Machine à blanchir.*)

Samuel Hawkins, St. Louis, Missouri, U.S.A., 9th December, 1891; 5 years.

*Claim.*—1st. In a washing-machine, the combination, with a body, of a flexible bottom, cleats on said flexible bottom, and a rocking rubber mounted in the body, substantially as set forth. 2nd. In a washing-machine, the combination, with a body, of a flexible bottom composed of a series of corrugated strips held together by means of flexible straps, cleats on the under side of the corrugated strips, and a rocking rubber mounted in the body, substantially as set forth.

### No. 37,937. Horse Collar. (*Collier de cheval.*)

Charles Henry Nix, Uxbridge, Ontario, Canada, 10th December, 1891; 5 years.

*Claim.*—1st. In a horse collar, the combination with the leather collar A, of the continuous metal rod B secured to the front edge of the collar A by the strip of leather E, the said collar being provided with a suitable lining and means for securing the upper edges, substantially as set forth. 2nd. A stiffening rod for horse collars consisting of upwardly converging sides, connected at their lower ends by a segmental curve, a loop or bulge formed in the centre or lowest portion of this curve, and the upper ends of the converging sides being bent rearwardly, substantially as set forth.

### No. 37,938. Boot for Treating Contracted Feet in Horses. (*Botte pour le traitement des pieds de chevaux.*)

Edward Charles Crevier, Peterborough, Ontario, Canada, 10th December, 1891; 5 years.

*Claim.*—1st. The convex metal shoe A, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the metal shoe A of the boot B, substantially as and for the purpose hereinbefore set forth.

### No. 37,939. Signal Apparatus.

(*Appareil de signal.*)

Michael Campbell, Boston, Massachusetts, U.S.A., 10th December, 1891; 5 years.

*Claim.*—1st. The case, the double bellows E, E', the elbow-levers attached thereto and connected at their lower ends, the eccentric intermediate said levers to actuate them alternately, the shaft F, and the storage-bellows, combined with the horn, substantially as described. 2nd. The case, the bellows E, E', its actuating devices, and the storage-bellows B, combined with the fog-horn having one end perforated, an air-inlet and a cut-off valve in said horn adjacent to the air-inlet and perforated end, movement of the valve beyond the inlet allowing the air to escape through the perforations, and opposite movement of said valve permitting the horn to emit sound, substantially as described. 3rd. The case, the double bellows E, E', and actuating devices, the elbow-levers e, e', pivotally attached to said bellows at one end and connected at their lower ends, the actuating-shaft, the self-oiling eccentric fast thereon, composed of the disks, and the ring held between and of less diameter than the disks, the levers e, e' being extended between said disks on opposite sides of and bearing against the ring, combined with the storage-bellows and the attached horn, substantially as described.

### No. 37,940. Portable Box for Shalting.

(*Botte portative pour arbres de couche.*)

Enoch Sawyer and Hyrum Sawyer, both of Granite, Montana, U.S.A., 10th December, 1891; 5 years.

*Claim.*—1st. The combination of the seat or pillow-block having a semi-cylindrical recess concentric with the shaft to be supported, the semi-cylindrical boxing fitted entirely within and having complete bearing in said recess and capable of being rotated therein around the axis of the shaft supported in said boxing without removing the shaft, a cover secured to the seat or pillow-block and forming a bearing for the upper half of the shaft, and set-screws in the side walls of the pillow-block adapted to engage the recesses in the sides of the boxing and lock the latter against rotation, whereby the weight of the boxing and shaft is distributed to the seat or pillow-block and is not borne by the set-screws, substantially as and for the purpose set forth. 2nd. The combination of the pillow-block having a segmental recess and provided with vertical slots extending through the uprights forming part of the side walls of said recess, the boxing mounted in the latter and provided with recesses at its upper inner edges, the box-cover having downwardly-extending flanges to fit in said recesses and provided with outwardly-extending wings having vertical perforations, and the connecting-bolts mounted pivotally in the base of the pillow-block and extending upwardly in the latter and through the wings of the box-top, substantially as and for the purpose herein set forth. 3rd. The combination of the base or pillow-block having a semi-cylindrical recess and provided with vertical slots extending through uprights forming part of the side walls of said recess, the yoke the arms of which are extended transversely through said slots and through the eyes of bolts seated therein, the split keys mounted in slots at the outer ends of the arms of said yoke, the boxing seated in the recesses of the pillow-block, and the boxing having slots for the passage of the upper ends of the connecting-bolts, substantially as and for the purpose herein set forth.