

recess, a base block, a bolt fitted in an aperture or hole in said block, and rigidly held in position by a lead filling, and a serrated nut fitted in the transverse recess of the post, and engaging the threaded end of the bolt to lock, said base block and post together, substantially as described.

### No. 24,428. Display Frame for Show Windows. (*Montre pour Vitrines.*)

William A. Aiken, (assignee of Edwin A. Tracey.) Norwich, Ct., U.S., 5th July, 1886, 5 years.

*Claim*.—1st. A support for displaying shoes slippers and boots, consisting of a wire form having suitably located a depression for the reception of the clamping screw, substantially as herein described. 2nd. A shoe rest, of the form referred to, having a depressed central portion, in combination with a clamping screw adapted to enter said depression and engage a suitable support, substantially as specified. 3rd. In combination with a display frame formed of a series of rods adjustably connected to each other, as herein described, a series of collars adjustably located on the horizontal rods of said frame, and a series of shoe rests, each formed with a depression for the reception of a clamping screw adapted to engage said collar, substantially as herein described.

### No. 24,429. Snow Plough. (*Charrue à Neige*)

Orango Jull, (assignee of Edward Leslie,) Oranoville, Ont., 5th July, 1886; 5 years.

*Claim*.—1st. A series of shovels G, connected to and radiating from the revolving driving shaft A, in combination with a series of bent plates T, placed between the shovels G, substantially as and for the purpose specified. 2nd. A series of shovels G, fixed to and radiating from the revolving shaft A, in combination with the bent plates T, pivoted at their centre between the shovels G, substantially as and for the purpose specified. 3rd. A series of shovels G, connected to and radiating from the shaft A, the rings d and e designed to brace the shovels together, as specified, in combination with the bent plates T, hinged to the rings d and e, substantially at the centre of the plates between the shovels G. 4th. The bent plate T, hinged to the rings d and e, in combination with the spring catches F, arranged substantially as and for the purpose specified.

### No. 24,430. Telegraphic Relay. (*Relais Télégraphique.*)

Sidney A. Chaso and William R. Mapes, Ewart, Mich., U.S., 5th July, 1886; 5 years.

*Claim*.—As an improvement in telegraphic relays, the combination of the electro magnets having the usual metallic yoke formed with the U-shaped extension, the two contact screws, one of which is in direct contact with the metallic yoke, while the other passes through an insulated aperture in the yoke, the armature arranged to come in contact with the insulated contact screw when attracted by the magnets, two series of three disks, each having intervening apertures between the disks of each series, and a disk at one end of each series having a wire leading to said insulated contact screw wires, leading from the opposite end disks of the series to the metallic yoke wires, leading from the central disks to two binding posts, one of which posts receives the wire of a local circuit, while the other post receives the wire of a local circuit, while the other post receives the wire of another local circuit wire, leading from the armature to two binding posts, one of which receives the remaining wire of one local circuit, while the other receives the remaining wire of the other local circuit, and the metallic plug adapted to fit and close the circuit between the said disks, as described, all constructed and arranged to operate in the manner and for the purpose herein shown and specified.

### No. 24,431. Locking and Driving Gear of Traction Engine, Steam Plough Engine, etc. (*Communication de Mouvement de Machine Locomotive, Machine de Charrue à Vapeur, etc.*)

Alfred Greig, Richard H. Shaw, Leeds, and John Whittingham, Nantwick, Eng., 5th July, 1886; 5 years.

*Claim*.—The combination, in the locking and driving gear of traction engines, steam plough engines and other engines of a like nature, of gimbal rings interposed between the axle and the body of the engine, and of differential toothed gearing interposed between the wheels upon the axle, and the outer gimbal ring to which the driving power is applied, substantially as described.

### No. 24,432. Shirt. (*Chemise.*)

William S. Finch, Toronto, Ont., 6th July, 1886; 5 years.

*Claim*.—In a shirt or undershirt, the incision or slit c, protected by a curtain e in the front of said shirt, with the slit d at the back thereof, allowing the shirt to lie down over the legs inside the drawers or pants, substantially as shown and for the purpose specified.

### No. 24,433. Pulp Machine. (*Machine à Pâte à Papier.*)

Gronville M. Stevens, Portland, Mo., U.S., 6th July, 1886; 5 years.

*Claim*.—The machine for forming vessels from moistened pulp, consisting of the rotary base f, the perforated vessel h, composed of three parts, and having netting o and check cloth p, the cover e with its flanges i and j, and the jointed rods R, the whole to rotate as herein set forth.

### No. 24,434. Brooch or Badge for Clubs, etc. (*Broche ou Insigne pour Cercles, etc.*)

Robert E. Phillips and Ernest R. Shipton, London, Eng., 6th July, 1886; 5 years.

*Claim*.—1st. A brooch or badge for clubs and other bodies, whose membership is defined by the payment of periodical subscriptions, consisting essentially of two parts, one of which is capable of being removed or detached from the others, so that it may be changed at stated intervals, as and for the purpose hereinbefore described. 2nd. Combining with a brooch or badge, a ticker of membership, the design of which harmonizes with the design of the brooch or badge, so as to produce any given design, substantially as set forth. 3rd. A brooch or badge, an essential portion of which is changeable or renewable, at stated or given intervals, as and for the purpose hereinbefore set forth.

### No. 24,435. Fire-Place and Heating Apparatus connected therewith. (*Foyer et Appareil de Chauffage pour Foyer.*)

Hermann Heim, Obordobling, Austria, 6th July, 1886; 5 years.

*Claim*.—1st. In a fire-place or stove, a filling channel terminating in the lower part of the fire-space above the grate, and having its upper end forming the filling opening, or ranged to project either forwardly over the fire-space or laterally of the same, whilst its lower part is inclined at an angle of about 45 degrees to a horizontal line, and forms a surface upon which the fuel gradually slides down into the grate. 2nd. In a fire-place or stove, the combination of the fire-space and filling-channel, in such a manner that the lower portion of the inclined surface of the said filling-channel, extends into the fire-space beyond the vertical plane of the wall between the upper part of the fire-space and the filling-channel. 3rd. In a fire-place or stove, the pipes f<sub>1</sub>, f<sub>2</sub>, f<sub>3</sub>, f<sub>4</sub> for the passage of the heated gases of combustion, the said pipes being freely suspended from the fire chamber, so as to permit the longitudinal displacements caused by the differences of temperature. 4th. The arrangement of a coil of pipes or a water casing within the fire-space, the said coil or casing serving as the boiler of a heating apparatus by which various rooms can be heated. 5th. In a fire-place or stove, a protecting bar placed before or above the grate, the said bar being A-shaped or channel-shaped in transverse section, and perforated in the upper part, for the purpose specified. 6th. In a fire-place or stove having a filling-channel, a grate whose part adjacent to the said filling-channel is directed upwardly from the middle of the said grate, so that it joins and forms a continuation of the inclined surface of the filling channel. 7th. In a fire-place or stove having a filling-channel, the combination, with the upper end of said filling-channel, of a funnel-shaped projection rigidly connected to the inside of the filling-opening of the outer casing, and extending into the filling-channel, for the purpose of preventing the fuel from falling between said casing and the fire-place. 8th. In a fire-place or stove, the arrangement at a small height above the grate of supports for a perforated plate or a fork-shaped grate, said plate or fork-shaped grate being introduced into the fire-place when the ordinary grate is to be cleaned, while the fire-place or stove is being used.

### No. 24,436. Suspender Buckle. (*Boucle de Harnais.*)

Joseph F. Townsend, Cambridgeport, Mass., U.S., 6th July, 1886; 5 years.

*Claim*.—The buckle frame, provided with the duplex or concavo-convex tongue c, arranged with and adapted to such frame as described, and with the elastic curved tongue g projecting from the said frame, and extending down nearly to the lower bar thereof, all being substantially as set forth.

### No. 24,437. Hame Tug. (*Mancelle.*)

John T. Condon, Kingsley, Iowa, U.S., 6th July, 1886; 5 years.

*Claim*.—1st. The combination of the hame having eyes c, c, the tug strap and the clip A having its shank or body a increased and held in the tug-strap, and its head d projected out beyond such strap, and the projections or studs A<sub>1</sub> extended from the opposite sides of the head a and into the eyes c, c, substantially as set forth. 2nd. As an improved article of manufacture, the herein-described hame tug consisting of the strap, adapted at one end for connection with a trace, and the clip A having its body or shank a increased within the opposite end of said strap, and its head a projected out of such strap, and having the studs A<sub>1</sub> projected in opposite directions from said head, substantially as set forth. 3rd. The combination, substantially as hereinbefore described, of the hame, the shield D secured at one end to the rear edge of the hame, the eyes c, secured to said hame, the tug strap and the clip, having its body or shank a increased in said strap, and its head a projected out therefrom, and the studs A<sub>1</sub> extended from the opposite sides of the head a and fitted into the eyes c, all arranged and operated substantially as and for the purposes specified.

### No. 24,438. Jaw and Clevis for Ploughs. (*Mâchoire et Volée de Charrues.*)

George Wilkinson, Aurora, Ont., 6th July, 1886; 5 years.

*Claim*.—1st. The combination of the stiff and swing clevis, substantially as and for the purpose hereinbefore set forth. 2nd. The construction of the jaws A, A, with holes e, e and d, d, and notches c, c, substantially as and for the purpose hereinbefore set forth. 3rd. The projections E, F on the inner edge of the clevis, substantially as and for the purpose hereinbefore set forth. 4th. The combination of the jaws A, A, and clevis B, B, substantially as and for the purpose hereinbefore set forth.