

translucent sheet of paper, or any other suitable material, the fragments being so designed that, when brought together to register with each other, a complete design is produced different from that which appears on the surface of the material before the fragments are brought to register together, substantially as and for the purpose specified.

No. 28,789. Curtain Pole. (*Dérouleur de rideau.*)

John W. Ramsdell, Saint John, N.B., 3rd April, 1888; 5 years.

Claim.—1st. A curtain pole curved between the ends and having straight ends fixed stationary in brackets, whereby the pole will not turn axially from an adjusted position. 2nd. A curtain pole curved between straight ends and provided with rings secured at any desired distance apart. 3rd. A curtain pole curved between straight ends and secured stationary in brackets, and provided with fixed rings, as set forth.

No. 28,790. Flush Valve for Water Closets.

(*Valve de latrines à l'eau.*)

Thomas Campbell, Saint John, N.B., 3rd April, 1888; 5 years.

Claim.—1st. The combination of the cylinder K and the piston I, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, with the two cylinders K, K₁, and the pistons I, I₁, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the cylinders K, K₁ and the pistons I, I₁, with the rods P, P₁, as connected with the lever Q and the chain T, substantially as and for the purpose hereinbefore set forth.

No. 28,791. Rotary Knob Latch Furniture.

(*Meuble à bouton-loquet rotatif.*)

George B. Underwood, Toronto, Ont., 3rd April, 1888; 5 years.

Claim.—The combination, with the plate A having a divisional recess a, and spindle B provided with a knob C journalled in said plate, of the lever D, having arm d, and pivoted to the plate below said spindle, and a tappet F, sleeve on the spindle and having arms f, f₁, of unequal length, engaging said lever at opposite sides from the pivot of said lever, substantially as set forth.

No. 28,792. Flushing Tank for Water Closet.

(*Réservoir de latrines à l'eau.*)

John Douglas and George Douglas, Cincinnati, Ohio, U.S., 3rd April, 1888; 5 years.

Claim.—1st. The pull B, connected to the fulcrum and weighted arm C, and chain D holding elastic valve V, in combination with the valve seat E over the discharge aperture, the seat being slightly smaller in diameter than the valve and cupped to receive the valve for more than half its size, substantially as shown and described. 2nd. In a flushing tank, the discharge pipe M provided with a seat F for the reception of an elastic valve V, the seat being slightly smaller in diameter than the valve which is operated by a pull, in combination with the overflow pipe H and float Y, which supports the swinging cap S together with stop n, all arranged substantially as shown and described and for the purposes specified. 3rd. In a flushing tank, the cap S loosely mounted on frame f, in combination with overflow pipe H and float Y, which encircles said overflow pipe and supports frame f, substantially as shown and described and for the purpose specified.

No. 28,793. Sewing Machine. (*Machine à coudre.*)

The Essex Embroidery Machine Company, Haverhill (assignee of Jeremiah Keith, North Middleborough), Mass., U.S., 3rd April, 1888; 5 years.

Claim.—1st. In a sewing machine, the combination, with the stitch-forming mechanism, of a top feed adapted to bear on the upper surface of the work, an arm supporting said feed and movable horizontally in any direction, mechanism for alternately raising and depressing said arm and feed, a movable pattern located over the bed of the machine, and having two guiding or stitch-directing edges, mechanism to move said pattern intermittently, and devices through which a given series of movements are imparted from the stitch-directing edges of the pattern to the top feed, as set forth. 2nd. The combination, with the stitch-forming mechanism, of a top feed adapted to bear on the upper surface of the work, an arm supporting said feed and movable horizontally in any direction, mechanism for raising and depressing said arm and feed, a movable pattern located over the bed of the machine, and having two guiding or stitch-directing edges, mechanism to move said pattern intermittently, and two pivoted levers h, m, connected, as described, with the feed carrying arm and bearing against the two stitch-directing edges of the pattern, as set forth. 3rd. The stitch-directing or guiding pattern, composed of a flat strip or band, having its edges formed in accordance with the pattern to be produced, and provided with teeth to engage corresponding teeth of an impelling device on a sewing machine, combined with a toothed wheel formed to engage the teeth of the strip, and mechanism for rotating said wheel, as set forth. 4th. The combination, in a sewing machine, of the stitch-forming mechanism, a top feed adapted to bear on the upper surface of the work, an arm supporting said feed and movable horizontally in any direction, mechanism for raising and depressing said arm and feed, a flat pattern strip having its edges formed in accordance with the pattern to be produced, and provided with teeth to engage an impelling device, mechanism whereby said strip is moved forward intermittently, and devices through which a given series of movements are imparted from the stitch-directing edges of the pattern strip to the top feed, as set forth. 5th. The combination of the stitch-forming mechanism, a top feed adapted to bear on the upper surface of the work, an arm supporting said feed and movable horizontally in any direction, mechanism for raising and depressing said arm and feed, a flat endless flexible pattern strip or band, having its edges formed in accordance with the pattern to be produced, and provided with teeth to engage

an impelling device, pulleys journalled on the machine to support said band, mechanism whereby the band is moved step by step, and devices through which movements are imparted from the stitch-directing edges of the pattern band to the top feed, as set forth. 6th. The top feed composed of the ring having a series of radial dogs pivoted to it, said dogs being connected by springs, whereby they are normally contracted or drawn inwardly, combined with mechanism, substantially as described, for raising and lowering said feed, and for moving it horizontally, as set forth. 7th. The combination, in a sewing machine, of the stitch-forming mechanism, the top feed composed of the ring and the radial spring contracted dogs, the mechanism, substantially as described, for operating said top feed and the work raising finger or presser, and mechanism to operate it, whereby that portion of the work that is stretched by the depressed top feed is raised or stretched before the needle rises, as set forth.

No. 28,794. Separable Pulley.

(*Poulie divisible.*)

Henry J. Gilbert, Dayton, Ohio, U.S., 3rd April, 1888; 5 years.

Claim.—1st. The combination, with a pulley, of a cam clamping sleeve fitted in the shaft opening of the pulley, whereby the partial rotation of said sleeve causes it to bind upon the shaft and tightly clamp the pulley to the shaft, substantially as described. 2nd. The combination, with a pulley provided with a shaft opening, cut out or shaped to form two half circles, eccentric to each other and to the centre of the pulley, of a separable cam clamping sleeve fitted into said shaft opening, substantially as described, whereby the partial rotation of said clamping sleeve in said shaft opening centres the pulley on the shaft and firmly binds it thereto. 3rd. The combination, with a pulley, of a cam clamping sleeve slotted transversely on its inner side and fitted in the shaft opening of the pulley, substantially as and for the purpose described. 4th. A separable pulley consisting of the spokes, whose inner ends are fastened together to form a hub, and whose outer ends are tenoned and provided with locking grooves, a two-part rim secured together by dovetail keys and provided with bores for the reception of the spoke tenons, which are secured therein by dovetail locking keys, and covering rings applied to the sides of said rim, substantially as described.

No. 28,795. Machine for Separating Rinds or Peelings, Piths, Seeds and other Refuse from the Pulp and Juice of Fruit and Vegetables.

(*Machine pour enlever les écorces, moelles, graines et autres déchets des pulpes et jus des fruits et légumes.*)

Edgerton DeCew and Franklin H. Carpenter, Hamilton, Ont., 3rd April, 1888; 5 years.

Claim.—1st. In a machine for pulp cleaning, the reel B adapted to revolve, and constructed as operated in the manner herein already described. 2nd. In a machine for pulp cleaning, the cylinder D with perforated or sieve-like bottom adapted to contain the reel B, and as and for the purposes hereinbefore set forth. 3rd. In a machine for pulp cleaning, the combination, with the reel B, of the cylinder D, adapted to operate as described. 4th. In a machine for pulp cleaning, the adjustable bars B₁, with and without brushes, adapted to operate as described and as and for the purposes hereinbefore set forth.

No. 28,796. Pulp Beating Engine.

(*Cylindre broyeur de pâte papier.*)

Joshua Norton, Jr., Portneuf, Que., 3rd April, 1888; 5 years.

Claim.—1st. In a beating engine, the combination, in a vertical tub, of a submerged roll and longitudinal mid-feather, for the purposes set forth. 2nd. The combination of the roll B and mid-feather D, with curved lower edge D₁ and connecting curve D₂, all as and for the purposes set forth.

No. 28,797. Mechanism for the Treatment of Paper Fibre. (*Appareil de traitement de la fibre à papier.*)

Joshua Norton, Jr., Portneuf, Que., 3rd April, 1888; 5 years.

Claim.—1st. In a refining or finishing engine, the combination of the cylinder or case roll, carrying fly-bars contained therein, recesses formed in such cylinder, and bevel plates with diagonally set knives carried in such recesses, all as and for the purposes set forth. 2nd. In a refining or finishing engine, the combination of roll carrying fly-bars and contained in cylinder A carried on stands Z, bevel plates held in recesses in cylinder, shaft K, carried on brackets on boxes T, T₁, and shafts K₁, K₂, connected with sleeves L, L₁, and operated from shaft K, all substantially as and for the purposes described.

No. 28,798. Metallic Gas Tip. (*Bec à gaz.*)

James B. Hoguo and Charles Salter (assignees of William Carey), Montreal, Que., 4th April, 1888; 5 years.

Claim.—A small metal gas tip A, having a punched slot B, made of the required width, as a new article of manufacture, and as above described and for the purposes set forth.

No. 28,799. Folding Box. (*Boîte pliante.*)

Charles W. Elliott, Boston, Fred A. Whitney, Leominster, and Leonard F. Lawrence, Revore, Mass., U.S., 4th April, 1888; 5 years.

Claim.—The folding box A, in combination with band B, substantially as and for the purpose set forth.