

*Claim.*—1st. The upright columns H, H, having perforated disks, at stated distances supported from the bottom and containing the filtering substance in combination with the circular gas receiver 5, 5, 5, connected with or separated from the body of the machine; 2nd. The arrangement of the cocks K, F, in combination with the body A, A, of the gas generator and carbon chamber.

No. 2770. JEAN E. RICHARD, Columbia, S. C., U. S., 6th October, 1873, for 5 years: "Portable Air Gas Machine." (Machine à gaz portative.)

Relates to a machine for generating illuminating gas by the mixture of air with gasolene, naphtha or other hydro-carbon in the necessary proportions.

*Claim.*—1st. The diaphragm *a*, perforated near the bottom and arranged within the cylinder A; 2nd. The hollow perforated shaft D, having an enlarged centre of sufficient diameter, fitted through the diaphragm *a*, and the wheels F, and G; 3rd. The packing *o*, connected with the lubricating pipe *m*, and arranged within the diaphragm *a*, and upon the shaft D; 4th. The discharge pipe J, arranged as described, and provided with the swivel valve *at*; 5th. In combination with the packing V, and V', the washer *v*, constructed and arranged as described.

No. 2771. JEROME B. STILLSON & JOHN A. KLEY, Chicago, Ill., U. S., 6th October, 1873, for 15 years: "Chemical Fire Engine." (Appareil chimique à incendie.)

Consists in combining with the gas tanks a force pump; in the mode of supporting the tanks upon the frame, and in the peculiar construction of the bed frame and running gear, &c.

*Claim.*—1st. In combination with the acid chamber D, the discharging rod *c*, made in two parts, and constructed and protected from the acid; 2nd. The combination of the two gas tanks with a force pump G, constructed and arranged to operate with either or both of such tanks; 3rd. The combination of the two tanks with the pump G, suction hose H, pipe *b*, and valves *i*, *j*, *j*, and pipe F, so that the tanks may be operated separately or in conjunction; 4th. The combination of the valve-cock *k*, and pipe *l*, with the tanks A, B; 5th. The mode described of securing the tanks to their supports by means of flanges *m*, and bolts; 6th. The bed frame consisting of the side pieces K, K, cross bars L, L', L', L', tank supports *m*, *m'*, and supports *n*, *n*, for the pump; all constructed as specified.

No. 2772. JAMES ECCLES, Philadelphia, Penn., U. S., 6th October, 1873, for 5 years: "Frictionless Journal and Shaft Bearings." (Tourillon et coussinet sans friction.)

*Claim.*—1st. A journal box, the interposition between the axle or sleeve thereon, and a circular bearing surface concentric with the axle, of a series of anti-friction rollers geared to the axle or sleeve and to the said concentric circular bearing surface by cog-wheels the pitch lines of which coincide with the bearing surfaces; 2nd. The combination of the ring E, axle G, and interposed geared rollers with a block B; 3rd. The combination of the ring E, axle G, interposed geared rollers and block B, with the box *a*, and spring *f*; 4th. In interposing between a plate for receiving the end thrust of a shaft and a plate or disc on the latter, a series of conical rollers adapted to bevelled tracks on the said plates and geared to the said tracks by bevelled wheels the pitch lines of which coincide with bearing surfaces of the tracks and rollers; 5th. The conical rollers interposed between and geared to a fixed plate and revolving plate, the latter of which has a flange for resisting the end thrust of the said rollers.

No. 2773. RICHARD S. BRADLEY, Toronto, Ont., 6th October, 1873, for 5 years: "Washing Machine." (Machine à laver le linge.)

*Claim.*—The perforated hollow cylinder A, when suspended on the gudgeons B, within the water tank D.

No. 2774. THOMAS DARK, Buffalo, N. Y., U. S., 6th October, 1873, for 5 years: "Receiver and Stench Trap of Street Sewer." (Puits et clapet d'égout.)

Serves the double purpose of a stench trap and of permitting the ready cleaning of the sewer.

*Claim.*—The combination of the iron receiver A, with slanting ends *a*, *a'*, trap B, and outside flanges *p*, *p'* all formed in one piece and having the hinged valve trap C, resting on packed seats or grooves *c*, *c'*, and held in place by cross bar C, working into grooves *d*, *d'*.

No. 2775. THOMAS FORFAR, Waterdown, Ont., 6th October, 1873, for 5 years: "Machine for Wringing Clothes." (Machine à tordre le linge.)

*Claim.*—The combination and arrangement of the several parts, namely: the double and single ended frame A, as shown on Figs. 1 and 3, with the springs G, at each end for regulating the pressure on the rollers C, and D, for the purpose of mangling clothes or other articles, all operating as set forth.

No. 2776. CHARLES S. REED, Oakville, Ont., 6th October, 1873, for 5 years: "Frame for Stretching Hides and Leather." (Herse pour étirer les peaux et le cuir.)

*Claim.*—1st. The attachment of the slide bar A, to the frame D, by means of parallel swinging hooks or bars B, B, B; 2nd. The movement of the slide bar A, by means of the cam C; 3rd. The combination of the slide bar A, the swinging hooks or bars B, B, B, and the cam C, arranged as described.

No. 2777. HENRY Q. HAWLEY, Albany, N. Y., U. S., 6th October, 1873, for 5 years: "Fluid Measuring Motor." (Moteur pour le mesurage des fluides.)

The apparatus is constructed so as to remove all injurious friction, thereby materially reducing the wear of the moving parts.

*Claim.*—1st. A rotary fluid motor or meter an inner wheel carrying pistons in separate chambers revolving concentrically with a portion of the periphery of the case and eccentrically with the remainder; 2nd. The loose and shouldered pistons D, in combination with the wheel C, and case A; 3rd. The pistons D, straight or curved, constructed with chambers and loose packing combined with an inner wheel; 4th. A series of wheels of similar construction acting alternately in separate chambers of case and placed upon the same shaft; 5th. A worm screw or toothed pinion on the shaft connecting with indicating dials or registering apparatus in combination with a rotary motor; 6th. In cone pulleys in combination with the case A, shaft B, and wheel C, and their attachments; 7th. The lubricating and packing screw *b*, in combination with the case and wheels; 8th. The combination of the grooved case A, with the eccentric wheel *v*, carrying the loose pistons P, said wheel and pistons having chambers, shouldered and pins.

No. 2778. BENJAMIN T. TRIMMER, Rochester, N. Y., U. S., 6th October, 1873, for 5 years: "Middlings Separator and Purifier." (Séparateur et purificateur des gruaux.)

*Claim.*—1st. The primary screen E, located above the machine and employed for the purpose of screening the middlings before subjecting them to a current of air; 2nd. The chutes *p*, *p*, and the adjustable slides *r*, *r*; 3rd. In combination with the chutes *p*, *p*, the inclined boards *s*, *s*; 4th. In combination with the exhaust fan, and case B, C, the slides *d*, *d*, and valve *f*; 5th. In combination with the screen I, the curved bearing *e*, and eccentric *w*, or equivalent for imparting a compound vertical and horizontal rocking motion to said screen; 6th. The series of independent sieves or screens K, K, mounted in a single frame, and so arranged as to be removable at pleasure; 7th. In combination with the screen I, the knocker L, operated by a cam *x*, or equivalent.

No. 2779. JAMES HAY & FEARGUS PERKS, Montreal, Que., 6th October, 1873, for 5 years: "A Fire-escape." (Un appareil de sauvetage.)

*Claim.*—1st. The rails *a*, with bogie *c*, in combination with blocks and pulleys *e*, and *b*, basket *f*, chain *k*, pin *m*, arm *o*, and wire or cord *p*; 2nd. The combination of the pin or bolt *n*, pivoted at *n*, pivoted arm *o*, and cord or wire *p*, in combination with chain *k*.

No. 2780. DONALD J. MCARTHUR, Lobo, Ont., 6th October, 1873, for 5 years: "Machine for Capturing Potato Bugs." (Machine à attrapper les punaises à patates.)

When the machine is pushed forward the fan wheel strikes the potato vines knocking the insects against shield and into a drawer.

*Claim.*—The application of frame A, and wheel B, in combination with pinion bar E, pulleys J, and K, shield G, box N, and drawer H.