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**INVENTIONS PATENTED.**

NOTE—Patents are granted for 15 years. The term of years for which the fees have been paid, is given after the date of the patent.

**No. 22,170. Shoe for Cleaning Grain.**  
(*Nettoyeur des Grains.*)

Frederick M. Lynett, Toronto, Ont., 1st August, 1885; 5 years.

*Claim.*—1st. In combination with main frame A, having notched plate N, rocking-frame B, provided with spring lever M, having stud *i*, to enter the notches of the plate, and screen C, supported and adapted to rotate within frame B. 2nd. In combination with a rotary cylindrical screen, spiral conveyer blades secured to the interior walls thereof, buckets extending from one blade to another, stationary scattering plates located within the cylinder and adapted to spread the material raised and deposited upon them by the buckets, and a fan arranged, substantially as described and shown, to produce a current of air through the cylinder. 3rd. In a screening apparatus, such as described, the combination of a rotary screening cylinder having end plate *b*, partially closing the discharge end of the cylinder, hoop *c*, provided with outlets *f*, encircling band F, provided with outlets *g*, and fan I, said parts being constructed and arranged substantially as shown and described, whereby the material operated upon may be held for any desired length of time under the action of the fan. 4th. In combination with a stationary frame A, a rocking frame B, provided with a lateral axle K, and having trunnions a journaled in said stationary frame, a driving-wheel R, R<sub>1</sub>, journaled upon one of the trunnions *a*, a rotary cylindrical screen C, provided with gear ring P and gear wheel Q Q<sub>1</sub>, mounted upon axle K, and serving to transmit motion from the driving wheel R, R<sub>1</sub> to the screen, the parts being arranged substantially as described and shown, whereby the adjustment of the screen may be varied without changing the position of the driving wheel.

**No. 22,171. Combination Button.**  
(*Bouton à Combinaison.*)

Frank A. Fox, New York, N. Y., U. S., 1st August, 1885; 15 years.

*Claim.*—In a changeable button, substantially as described, a disc having a threaded edge, provided with removable covering shell interiorly threaded and adapted to entirely conceal the face of the disc, substantially as set forth.

**No. 21,172. Wheel Harrow.** (*Herse à Roue.*)

William A. Martin, Milltown, P. E. I., 1st August, 1885; 5 years.

*Claim.*—1st. The combination of an over-hanging hood on the arm or pillar carrying the wheel, and a cone made on or attached to the said wheel, for the purpose of preventing dirt of any description whatever getting into the wearing parts of said wheel and its axle, substantially as and for the purpose hereinbefore set forth.

**No. 22,173. Feed Water Alarm.**

(*Indicateur à Sonnerie du Niveau d'Eau.*)

George W. Getchell, Brewer, and Webster Cook, Williamantic, Me., U. S., 1st August, 1885; 5 years.

*Claim.*—1st. In a feed-water alarm, the pivotal lever *g*, formed with the bent or attached arm *j*, and having the balance rod *o*, *p*, pendulum *q*, *r*, and arm *l* rigidly attached by means of the collar E,

and formed at the inside end with the spindle collar or socket *t*, and adjusting screw *u*, in connection with the spindle *m*, and attached by the chain K to the float *d*, as shown and described. 2nd. In a feed-water alarm, the pivotal bend lever *g*, *j*, having the parts *g* and *j* formed integral, and bent at *a*, the part *g* inclosed and operating in a steam boiler or cylinder, and formed with the adjustable spindle *m* properly attached, and connected by a suitable chain with the float *d*, and actuated by the rise and fall of the float *d*, corresponding to the rise and fall of the water in the boiler or cylinder, the part *j* passing through and rotating in the packing-box *i*, and having rigidly attached the rod and weight *q*, *r*, and balance rod and weight *o*, *p*, and arm and spring *l*, *s*, arranged and operating in connection with the circuit-closer V and proper electrical wires to ring the electrical bell W, or sound any electrical alarm. 3rd. In a feed-water alarm, the combination of the steam cylinder *c*, recessed chamber *m*, float *d*, chain K, spindle or lever *g*, arm *j*, pendulum *q*, *r*, balanced rod *o*, arm and spring *l*, *s*, circuit-closer V, suitable electric wires, and the electric bell or alarm W, arranged and used and operating as shown and described. 4th. In a feed-water alarm operating in a steam cylinder or boiler, the safety valve X, having the lever *s* connected to or engaging with and operating the balanced rod *o* to sound an electrical alarm, all as shown and described, and substantially as and for the purpose hereinbefore set forth.

**No. 22,174. Apparatus for Measuring and Continuously Recording Physical Power.** (*Appareil pour Mesurer et Enregistrer avec Continuité la Force Animale.*)

Arthur G. Meeze, Redhill, Eng., 1st August, 1885; 5 years.

*Claim.*—1st. The dynamical integrator, hereinabove described, with reference to Figs. 1 and 2 of the drawings, and consisting of the combination with the spindle of a suitable counting device, of epicyclic gear, a secondary spindle carrying a friction disc or cone driven by elastic extensible belting from a pulley upon the first spindle, and a friction-piece adapted to be moved to or from the centre of the disc or cone, so as to retard and control the velocity of the secondary spindles, by means of which apparatus may be effected the integration of two variable functions, and consequently the direct meterage of divers forms of physical power, and indirectly the quantity of water or other fluid passed through pipes or conduits, substantially as set forth. 2nd. The combination and arrangement of apparatus described, with reference to Figs. 1 to 5, inclusive of the drawings, for the meterage of the power given out by steam or other engines worked by fluid pressure. 3rd. The adaptation to the measurement of power transmitted by driving belts, of integrating apparatus, constructed and arranged substantially as shown in Figs. 6 and 7, and consisting essentially in the combination with the spindle of a counter C, of epicyclic gear, a second spindle A<sub>1</sub>, carrying a friction disc or cone D, a pair of belts, *e*, *e*<sub>1</sub>, one of which is elastic and extensible connecting the epicyclic gear with the said secondary spindle, and a friction-piece *d*, controlled by the tension of the driving belt, so as to be displaced from the centre of the disc or cone in proportion to the variations in effective tension of the said belt, substantially as set forth. 4th. The adaptation of my integrating ergometer to the measurement of the power transmitted through revolving shafting, as described, with reference to Figs. 8 and 9 of the drawings. 5th. The use for measuring and recording transmitted physical power, of an integrating dynamometer, constructed as described with reference to Figs. 1 and 2 of the drawings, an essential feature of which integrator is a friction disc or cone D, and a friction-piece *d* arranged so as to be moved to or from the centre of the said disc or cone in proportion to one of the functions to be integrated (the pulley B being driven at a rate proportional to the other function) in order to ascertain the total energy expended or work done. 6th. The adaptation to the meterage of electrical energy, of dynamical integrating apparatus, constructed arranged and operating substantially as hereinbefore described, with reference to Figs. 11 and 12 of the drawings. 7th. The differential use of dynamical integrating apparatus for the meterage of electrical energy, as described, with reference to Figs. 11, 12 and 13 of the drawings. 8th. The combination, with an electric motor doing electrical or other work, of an integrating ergometer for the purpose of effecting the meterage of electrical energy, as described. 9th. The means described, with reference to Figs. 14 and 15, for differentially measuring and recording electrical energy.