

work with a cylindrical or conical spiral spring excessively twisted by winding up, substantially as set forth. 2nd. In clocks and watches, the combination of the wheel work with a cylindrical or conical spring compressed by winding up, substantially as specified.

No. 23,069. Ladder. (Echelle.)

Eugene E. Fox and George McDormand, Somerville, Mass., U. S., 4th January, 1886; 5 years.

Claim.—1st. In an extensible ladder, the pivoted hook D, provided with the cam f and lever E, in combination with the sections F, A and means for raising section B, substantially as described. 2nd. In an extensible ladder, the pin B, in combination with the hook D for preventing the latch or lever E from dropping too low, substantially as set forth. 3rd. In an extensible ladder, the combination of the following instrumentalities, to wit: two sections, each provided with a sheave and rungs, and adapted to slide on the other, a cord passing over the sheaves for raising and lowering one of the sections, and a gravity hook pivoted to a rung of one of the sections and adapted to engage the rungs of the other section, said hook being provided with a lever or latch for closing its mouth, and a cam for throwing it outwardly to enable it to pass upwardly over the rungs of the section to which it is not pivoted, substantially as described. 4th. The improved extensible ladder herein described, the same consisting of the section A provided with the rungs x and sheave z, the section B provided with the rungs x and sheave d, the hook D provided with the cam f and lever E and the cord C, constructed, combined and arranged to operate, substantially as set forth. 5th. In an extensible ladder, the lever E extended beyond the end of the hook D, whereby said lever is enabled to engage the rungs of section A and open the hook as it passes upwardly over said rungs, substantially as described.

No. 23,070. Combined Filter and Cooler.

(Filtre-Fontaine.)

John C. Jovett, Buffalo, N.Y., U.S., 4th January, 1886; 5 years.

Claim.—1st. In a combined filter and cooler, an independent shell for said filter, in combination with the filtering-vessel and a narrow band permanently affixed to said filtering-vessel, said band forming a continuation of the independent shell as and for the object stated. 2nd. In a combined filter and cooler, an oblong gravel-cup II having perforated partitions I, a perforated receiving-cup J and a sponge-cup L, said sponge-cup being located with reference to the gravel-cup, substantially as and for the purpose indicated. 3rd. In a filter, the combination, with the gravel-cup, of a sediment compartment P having draw-off faucet h, as and for the purpose specified. 4th. The combination, with the vessel E having the perforated bottom G, and the diaphragm F of the oblong gravel-cup II having the perforated partition I, the perforated bottom z, apartment P and faucet h and the filter-strata, substantially as and for the object mentioned. 5th. The combination, with the gravel-cup II having the perforated bottom, of a filling consisting of a layer of cheese-cloth and a sponge, as and for the purpose indicated. 6th. The combination, in a filter, of the shell E having perforated bottom G and diaphragm F, the gravel-cup II with perforations d, and the laterally projecting collar R, as specified.

No. 23,071. Apparatus designed to Facilitate the Process of Covering Pills with Plastic Coatings. (Appareil pour Faciliter le Procédé pour Couvrir les Pilules de Corps Plastiques.)

Edgar L. Patch, Boston, Mass., U.S., 4th January, 1886; 5 years.

Claim.—1st. In an apparatus for pill-coating, the circular drying-disks A, provided interiorly with radial automatic clutches D, confining displaceable bars F, carrying impaling-points N, substantially as and for the purpose set forth. 2nd. In an apparatus for pill-coating, the combination, with the drying-disks A, A, of separable impaling bars F, rigidly confining a series of impaling-needles N, said needles extending in a direction radially from the axis, as specified. 3rd. In an apparatus for pill-coating, the combination of the separable impaling-bars F, with a series of extending needles N, secured rigidly in transverse slots k by short holding-wires O and capping T, for the purpose set forth. 4th. In combination with the impaling-bars F, the dipping-handle provided with U-shaped and reflected spring-arms W and V, as described. 5th. In an apparatus for pill-coating, a dividing and separating tray a, in combination with a detachable serrated dividing plane or floor h, sustaining a series of conical depressions j, for the accurate impalement on the same dividing-plane of every size of pill, as herein specified. 6th. In an apparatus for pill-coating, the combination of the transverse partition d, with a dividing-plane h provided with continuous serrated raceways i terminating in conical depressed pockets j, substantially as shown. 7th. In an apparatus for pill-coating, the combination, with the inclined floor h, of the aggregate devices k, l, m acting in conjunction with the depressions n in the under side of said incline h, to depress or raise the pockets j bringing them in juxtaposition with the impaling-points N, for the purpose set forth. 8th. In combination with a dividing and separating tray a, the transverse partition d having guides f, f, and stops g, g, guiding and arresting the descent of the impaling-bars F, substantially as herein specified. 9th. In combination with the transverse partition d, the end guides j, j and stops g, g, for the purpose described. 10th. In an apparatus for pill-coating, the combination, with the drying disks A, of a separable impaling-bar F embracing the tongued vertically-channelled side M, the tongued and recessed bar R provided with transverse P, tongue Q and grooved capping-piece T, all uniting to sustain a series of impaling-needles N, substantially as specified.

No. 23,072. Chimney Cowl.

(Capuchon de Cheminée.)

Albert T. Putnam, and Henry L. Wineman (Assignees of Thomas J. Bradbeer), Detroit, Mich., U.S., 11th January, 1886; 5 years.

Claim.—1st. The flue A provided with deflecting flange D secured to said flue, the deflecting frustum E secured to said standards above the flange D, the frustum F secured to the standards above the frustum E, inverted frustum G secured to the bottom of frustum E and the cone C of smaller diameter than said flue and supported by said standards, substantially as described. 2nd. The improved chimney cowl herein described, consisting of the flue A, standards B, cone, cap C, of smaller diameter than said flue and supported by said standards, deflecting frustums E, F, inverted frustum G secured to the bottom of said frustum E, and having opening frustum H secured to the frustum G, and upper frustum J rigidly secured to the outer ends of the standards B, all arranged and operating as and for the purpose specified.

No. 23,073. Spring Hinge. (Penture à Ressort.)

Siméon Cosky, Sorel, Que., 4th January, 1886, 5 years.

Réclame.—La combinaison nouvelle du ressort on spirales à fonctions multiples, tel qu'emprisonné et fixé dans la cartouche G3, conjointement avec la douille fixe D et douille mobile E, les susdites douilles telles que composées des parties D, D1, D2, f d et a' et E, E1, E2, f et a' et équivalentes. Le gond, A tel que composé des parties tête A en pans érou g1 A1, A2, A3, z et A4. La rondelle x et cavité y, la noix G en pans érou g2, le tout tel que décrit et pour les fins indiquées.

No. 23,074. Metal Roofing. (Toiture Méallique.)

The National Sheet Metal Roofing Company (Assignee of John Walter), Nashville, Tenn., U.S., 4th January, 1886; 5 years.

Claim.—1st. The combination of layers of sheet metal plates A, in such manner that the seams G between the plates of an upper layer shall coincide with and form an extension, of a central corrugation I formed in the plates of the next lower layer, substantially as set forth and shown. 2nd. The combination of layers of sheet metal plates A in such manner that the seams G between the plates of an upper layer shall coincide with and form extensions of central corrugations I, formed on the plates of the next lower layer and the central corrugations J of said upper plates shall overlap the seams G of said lower plates, substantially as described and shown.

No. 23,075. Electro-Magnetic Stop Mechanism for Automatically Arresting the Motion of a Knitting Machine. (Mécanisme Electro-Magnétique d'Arrêt Automatique pour Machine à Tricot.)

Andrew M. Newlands, Preston, and Adam Warnock, Galt, Ont., 4th January, 1886; 5 years.

Claim.—1st. In a knitting machine, having one pole of an electro-magnet permanently connected to it, the armature of the said magnet when not in contact with it being designed to hold rigidly a series of levers, by which the belt-shifter or stop-lever of the machine is held while the machine is in operation, the combination of mechanism, substantially as described, by which the breaking of a thread shall put the other pole of the magnet into circuit for the purpose of attracting the armature towards its magnet and thereby relieve the belt-shifter or stop-lever, so that it shall stop the machine, substantially as specified. 2nd. In a knitting machine having one pole of an electro-magnet permanently connected to it, the armature of the said magnet when not in contact with it being designed to hold rigidly a series of levers by which the belt shifter or stop-lever of the machine is held while the machine is in operation, the combination of mechanism substantially as described, by which a hole occurring in the work shall put the other pole of the magnet into circuit, for the purpose of attracting the armature towards the magnet and thereby relieve the belt-shifter or stop-lever, so that it shall stop the machine, substantially as specified. 3rd. In a knitting machine, having one pole of an electro-magnet permanently connected to it, the armature of the said magnet when not in contact with it being designed to hold rigidly a series of levers by which the belt shifter or stop-lever of the machine is held while the machine is in operation, the combination of mechanism, substantially as described, by which the accumulation of fluff, or anything else, which would interfere with the working of the needles, shall put the other pole of the magnet into circuit for the purpose of attracting the armature towards its magnet and thereby relieve the belt-shifter or stop lever, so that it shall stop the machine, substantially as specified. 4th. An electro-magnet B connected by the wire A to a battery and to the frame of the knitting machine by the wire C, in combination with the wire D leading from the battery and communicating with cups of mercury insulated from the frame of the machine, but arranged to receive communicating points connected to the frame of the machine and designed to complete the circuit and thereby magnetize the electro-magnet B, substantially as specified. 5th. The armature E designed to support the lever G, which, when thus supported, holds the lever H in rigid contact with the head i, which is connected to the belt-shifter or stop-lever J, the spring K, for actuating the said lever, in combination with mechanism by which the electro-magnet B is magnetized, so as to attract its armature E and withdraw the support from the lever G, substantially as and for the purpose specified. 6th. The armature E designed to support the lever N fitting below the notched lever M, which holds the spring hammer L, as specified, in combination with mechanism by which the electro-magnet B is magnetized, so as to attract its armature E and withdraw the support from the lever N, causing the said lever N to raise the notched lever M clear of the spring hammer L, causing the same to knock the lever G clear of the notch e, thereby releasing the belt-shifter or stop-lever J, substantially as and for the purpose specified. 7th. The lever Q, pivoted on the thread-guide of a knitting-machine connected to an electro-magnet, the said lever Q being supported by the thread P above the insulated cup R containing mercury, so that the breaking of the thread P shall cause the lever Q to drop into the mercury, in combination with the wire D arranged to connect the battery of electro-magnet with the cup of mercury, substantially as