

of heat O, which reservoirs are communicating with each other by means of pipes B, C, and d, with the steam boiler D, by pipes E, and G, provided with valves I, and K, and with a well or cistern by the pipe A, provided with one or more valves F; 2nd. In the combination with the steam boiler D, of the aforesaid apparatus for feeding the sea is automatically and periodically in proportion to the dispense of water in the said boiler, the upper reservoir R, being completely filled with cold water up to the moment when a due vacuum is produced in the apparatus respectively sucking the water from the well or cistern periodically and instantaneously by the pipe A, whilst in the lower reservoir R, a periodical and momentaneous condensation of steam takes place at the very moment when this reservoir is emptied from water, and the cold water enters suddenly in it from the upper reservoir R, the influx of steam from the boiler not being interrupted; 3rd. The combination with the lower reservoir R, of the pipe G, provided with a screw tap or sliding valve K, constantly more or less open for the entry of the steam from the boiler into this reservoir; 4th. The combination with the orifice of the pipe B, in reservoir R, of an obturator or valve S, provided with a float T; 5th. The combination with the reservoir R, of a float W, which float may be replaced by one or more perforated partitions n; 6th. The combination with the reservoirs R, and R₁, of the tubes A, B, C, and d; 7th. The combination with the reservoirs R, R₁, of the pipe B, provided with partitions e, e.

No. 5258 JOHN SHIRREFF, Chatham, N. B., 5th October, 1875, for 5 years: "Improvements on Freezing and Refrigerating Machines." (Perfectionnements aux appareils rafraichisseurs congelateurs.)

Claim.—1st. The arrangement and combination of a vertical freezing and preserving chamber or chambers C, placed in and in combination with a main or outer freezing and preserving chamber A; 2nd. The arrangement and combination of vertical tubes G, in connection with vertical chamber C; 3rd. The doors O, in connection with the vertical chamber C; 4th. The thermometer P, in connection with doors O; 5th. The horizontal pipes J, siphon pipes K, and T; 6th. The arrangement of stoppers L, to tubes G; 7th. The arrangement of one or more vertical chamber C.

No. 5259. JOHN S. ROGERS, Gloucester, Mass., U. S., 5th October, 1875, for 5 years: "Art of Extracting Gelatine from Salted Fish Skins." (Art d'extraire la gélatine des peaux de poisson salé.)

Claim.—The process of treating salted fish skins for the procuring of their gelatine, such consisting in certain specified steps, to wit, soaking and agitating them in cool water so as to desalt and descale them and afterwards boiling them in fresh water, and removing superfluous matters therefrom and finally staining or filtering the gelatinous solution and if need be evaporating it to or partially to dryness.

No. 5260. DANIEL HAWKESWORTH, Digby, N. S., 5th October, 1875, for 5 years: "Spark Arrester." (Arrête flamme.)

Claim.—A cylinder A, having a series of internal triangular plates a, a, arranged circumferentially and spirally, overlapping each other sidewise and at the points.

No. 5261. DAVID STEELE, Hamilton, Ont., 5th October, 1875, for 5 years: "Improvement on Apparatus for Extinguishing Fires." (Perfectionnements aux extincteurs d'incendies.)

Claim.—1st. An arrangement of perforated water pipes for outside protection laid above the parts of buildings, &c., to be protected from fire connecting with a stand pipe having cocks set in suitable places for shutting off the water from any desired section of the system; 2nd. A combination for inside protection consisting of a perforated metallic ceiling and a supply pipe whereby the water is distributed and demanded in the form of a shower bath; 3rd. In combination with the perforated ceiling F, and supply pipe A, a metallic water tight sub-floor secured to the joists having an eduction pipe for carrying off the doused water.

No. 5262. PETER WOOD, Uxbridge, Ont., 5th October, 1875, for 5 years: "Shaft-coupling for Cutters." (Ajustage des limonières de traîneaux.)

Claim.—1st. The combination of the collared staples, one being attached to shafts, and the other attached to cross-bar on cutter; 2nd. The combination of the two slotted eyes, one being attached to cross bar on the cutter and collared staple on the end bar on shafts, and the other attached to end bar on shafts and collared staple on cross bar on cutter; 3rd. The combination of the collared slotted eyes and retaining knobs.

No. 5263. IONATIUS HAHN, Pittsburgh, Pa., U. S., 5th October, 1875, for 15 years: "Hydraulic Crane." (Grue hydraulique.)

Claim.—1st. The combination of the crane post jib and frame, the crane post being hinged to the frame so that the jib and post travel together in a vertical plane around a common axis; 2nd. The combina-

tion of a crane post, its supporting stand or frame and suitable mechanism for raising and lowering the post and its load, the post being connected to its stand by a hinge joint or connection and the power for raising and lowering the post being applied directly thereto; 3rd. In combination with a crane post hinged to its stand or frame an oscillating cylinder and piston, the piston acting upon the post to raise and lower the same; 4th. In combination with a crane post hinged to its stand or frame an oscillating cylinder and piston acting upon the post to raise and lower the same and an annular cylinder and piston for raising and cushioning the post; 5th. In combination with the crane post and the piston and cylinder for raising the post upon its vertical pivot, a vertical rod and cross arm or mechanism for adjusting and preserving the level of the cylinder; 6th. The combination of the crane post, its frame or stand, the oscillating cylinder for operating the post and a single pair of supporting wheels, the several parts being relatively arranged so that the points of support centre of trunnions and fulcrums are in a vertical line whereby the weight of the load is transmitted directly to the ground.

No. 5264. ALEXANDER BETTES, Warrensburgh, Mo., U. S., 5th October, 1875, for 5 years: "Heating Stove." (Calorifère.)

Claim.—1st. The combination of the oval or nearly cylindrical exterior case A, the plain lining or inner wall B, arranged parallel thereto, and provided with flanges G, C, to form the smoke flues, and having an opening D, on each side of the stove at the rear end of the combustion chamber H; 2nd. The oblique diaphragms E, cut out at F, forming the side flues, in combination with the vertical flue J, joined to, and forming an integral part of the case, or independent, and the openings K, L, the latter provided with a valve X.

No. 5265. THOMAS KANE, Hamilton, Ontario, 11th October, 1875, for 5 years: "Coal Ash Sifter." (Tamis à cendre de charbon.)

Claim.—1st. In combination with a barrel A, or other equivalent receptacle, the arrangement of the half circular sieve H, constructed as shown, made to revolve in the said barrel, &c.; 2nd. In combination with the barrel A, or other receptacle, the arrangement of the cover B, provided with the block E, rim D, handle F, and opening O; 3rd. The arrangement of securing the sifter or sieve H, with the handle F, by means of the rod G, metallic pieces K, L, and nut M.

No. 5266. FRANCOIS X. BELLEFEUILLE, and ACHILLE BELLEFEUILLE, Trois-Rivières, Que., 11th October, 1875, for 5 years: "Horse-power." (Manège à cheval.)

Résumé.—1o. La charpente ayant les poteaux B, B₁, B₂, et B₃, et munie de la pièce horizontale C, et de la pièce transversale M, 2o. L'arrangement en dedans de la charpente de tout l'engrenage; 3o. La combinaison dans une seule roue F, de la roue à chaîne et de la roue d'engrenage F.

Claim.—1st. The frame works, having the post B, B₁, B₂, and B₃, and furnished with the horizontal piece C, and the transverse piece M; 2nd. The arrangement inside of the framework of all the gearing; 3rd. The combination in a single wheel F, of the chain wheel and gear wheel F.

No. 5267. EDSON FITCH, and LEWIS H. HAMILTON (Assignees of G. R. Clarke), New Liverpool, Que., 11th October, 1875, for 5 years: "Paper Match Box Machine." (Machine à boîte d'allumettes en papier.)

Claim.—1st. In combination with the frames A, the receiver a, rods b, b, guides c, rod d, lever e, shaft f, cam D, lever g, roller h, and spring i; 2nd. In combination with the frame A, the lever E, shaft f, cam F, lever k, shaft l, roll r, m, rod n, and lever o; 3rd. In combination with the rollers q, the frame r, shaft s, enlargement t, cam G, and roller u; 4th. The revolving plate p, and shaft r, in combination with the clip g₁, pin h₁, and dogs v; 5th. In combination with the shaft v₁, the plate w, pins x, bar y, frame z, grooves a₁, catches b₁, and springs c₁; 6th. In combination with the bar y, the lever d₁, rod e₁, shaft l₁, roller f₁, and cam F; 7th. In combination with the frame A, and standard j₁, the plate k₁, movable plate l₁, bar m₁, cam D₁, lever n₁, and rod o₁; 8th. In combination with the standard j₁, the bar p₁, lever q₁, spring r₁, and fork s₁; 9th. In combination with the frame work A, the guide H, die t₁, lever u₁, links v₁, shaft w₁, cam G, lever z₁, roller y₁, rod z₁, and lever a₂; 10th. The combination of the die t₁, with the dies b₁, c₁, d₁, guides e₁, cam k, levers f₁, and g₁, shaft h₁, rollers i₁, and j₁, and rods k₁, and l₁; 11th. In combination with the table A, the bars m₂, blocks n₂, and o₂, hinge p₂, plates q₂, springs r₂, lever s₂, shaft l₁, enlargement r, and cam k; 12th. The combination of the roller frame c, with the snugs u₂, forks v₂, rollers w₂, bands z₂, and springs z₂; 13th. In combination with the roller frame c, the cam G, roller a₁, lever b₁, rod c₁, and snug d₁; 14th. In combination with the table B, the cam m₃, wedges e₃, lever f₃, rod f₃, bell crank g₃, rod h₃, forks v₂, rollers i₃, bands z₂, and fixed piece k₃.

No. 5268. CHARLES Z. MATTISON, and GEORGE W. SHAW, St. Louis, Mo., U. S., 11th October, 1875, for 5 years: "Spinning Machine." (Rouet.)

Claim.—1st. The combination of the wheels C, F, and G, when the wheels F and G vary as to the numbers of teeth, and are connected respectively with the bobbin and fler frame so as to give positive rotation to both and at different speeds; 2nd. The combination of cog wheels