side of the said point, in combination with the band K, pivoted on the knuckle point and arranged to press against the wedge pieces *l*, for the purpose of jamming the knuckle point, substantially as and for the purpose specified. 6th. The bar E fixed to the arm D, and passing through a hole in the block *m*, which block is fixed to the inside of the desk F, as specified, in combination with the eccentric *n*, arranged to form a rigid connection between the bar E, and block *m*, substantially as and for the purpose specified.

No. 19,342. Churn. (*Baratte.*)

William H. Dyer, Midway, Va., U.S., 14th May, 1884; 5 years.

Claim.—In a churn, the combination of the cream receptacle D, having flange L and gasket M, and cover consisting of the hinged parts F and G, recessed at *f* and *g*, and having grooved flanges J and fastening H, as shown and specified.

No. 19,343. Car-Coupling. (*Accouplage de Chars.*)

Thomas L. McKeen, Easton, Penn., U.S., 15th May, 1884; 5 years.

Claim.—1st. The combination in an automatic car-coupling, of the coupling-hook F, bolt G inserted transversely through the same link, or bail H hinged with the inner ends of the arms upon bolt G, and parallel arms I and J connected at their outer ends on opposite sides of the link by cross bar K adapted to support the free end of the link, and fastened with their inner ends upon the bolt or opposite sides of the hook, substantially as set forth. 2nd. The combination, in an automatic car-coupling, of the coupling-hook F, bolt G having projection M and arm N, link or bail H hinged with the inner ends of its arms upon bolt G, parallel arms I and J connected at their outer ends by cross-bar K and having bent fingers L, L, overlapping opposite sides of the link and the mechanism for operating bolt G and its attachments, substantially as set forth.

No, 19,344. Car-Coupling. (*Accouplage de Chars.*)

Thomas L. McKeen, Easton, Penn., U.S., 15th May, 1884; 5 years.

Claim.—1st. The combination in an automatic car-coupling, of the tubular draw bar D, draw head D_1, having the depressed or sunken portion *d*, fixed hook F, constructed with a wide web *f*, terminating in the offset or shoulder f_1, plunger P, having piston rod Q, projecting into the tubular draw head and springs E, substantially as and for the purpose shown and set forth. 2nd. The combination, in an automatic car-coupling, of the draw-head D, constructed as described, fixed hook F, constructed with a wide web *f*, terminating in the offset or shoulder *f*, spring actuated plunger P, bolt G, having at one end the arm M, parallel arms I and J, fixed upon opposite ends of the bolt on opposite sides of the hook and bent to form the recessed elbows K, L, and mechanism connected to the free end of arm M and adapted to operate the same for the purpose of adjusting the position of the link in the coupling or uncoupling the link from the hook, substantially as and for the purpose shown and set forth. 3rd. The combination, in a car coupling, of the arms T and J, adapted to bear against the under side of the link, arm M, bolt G, sliding rod C_1, having handles *b* and projecting arm C, connecting-rod *c*, jointed loosely at *h* to the outer end of arm C, and rod C_2, jointed loosely at its lower end to the outer end of arm C, and connecting-rod *c*, whereby the rod C_1 has a free lateral motion in its boxes or bearings *a*, substantially as and for the purpose shown and set forth.

No. 19,345. Fire-Escape. (*Sauveteur d'Incendie.*)

Christian E. Baker, Chicago, Ill., U.S., 15th May, 1884; 5 years.

Claim.—1st. In a fire-escape, the combination of a basket, with a piston travelling in a pipe, the speed of which is regulated by the escape of water from the pipe above such piston, and that will elevate the empty basket again by atmospheric pressure brought about by a vacuum formed below such piston, all constructed and arranged to operate substantially as and for the purpose set forth. 2nd. In a fire-escape, the pipe A, having faucets *c* and reservoir B, M, in combination with piston D, that by ropes E, M, and a multiple purchase connects with baskets H, the same being constructed and arranged to operate substantially as and for the purpose set forth. 3rd. In a fire-escape, the pipe A, having faucets *c* and reservoir B, in combination with piston D, that by rope E, and tackle F, connects with basket H, all constructed and arranged to operate, substantially as and for the purpose set forth.

No. 19,346. Carriage Painter's Adjustable Horse or Jack. (*Chèvre de Carrosserie.*)

Benedick Miller, Paola, Ks., U.S., 15th May, 1884; 5 years.

Claim.—1st. The combination of a standard having a vertical slot and an upper and lower set of holes, a semi-circle having a series of perforations and a cross piece provided with an upwardly projecting screw, with set screw and a downwardly projecting lug which is pivoted to the end of the standard, a piece E, for regulating the angle of the semi-circle and a block resting upon the top of the cross piece, all substantially as described. 2nd. The combination of a standard having a screw threaded end *a*, collar a^1, slot a^2, holes a^3 and a^4, a semi-circle having perforations *b*, cross piece H, pin D_1, set screw or nut D, pintle C, pin E and block I, substantially as described and for the purpose set forth.

No. 19,347. Lithographic Printing Plate. (*Plaque pour Impression Lithographique.*)

Peter C. Möllar, Leipsic, Germany, 15th May, 1884; 5 years.

Claim.—1st. The method described of preparing lithographic printing plates, which consists in moistening the surface of a metal foundation plate with a saturated solution of bi-carbonate of lime, then heating said plate, so as to evaporate the solution, and repeating these steps until a coating or deposit of bi-carbonate of lime of sufficient thickness is formed on the plate which is then used in the same manner as a lithographic stone, substantially as set forth.

No, 19,348. Boiler Flue Cleaner. (*Nettoyeur de Cheminée de Chaudière.*)

Rudolph P. Gerlach, Cleveland, Ohio, U.S., 15th May, 1884; 5 years.

Claim.—1st. In flue cleaners, the shank A and head B, said shank and head being of one piece, and provided with a flattened wide spiral uninterrupted steam passage extending from the induction end of the implement through to the eduction end thereof, substantially as set forth, and for the purpose specified. 2nd. The flue cleaner, consisting of a spiral shank A, tapering from the eduction to the induction end and having wide curved discharge opening D, substantially as set forth.

No. 19,349. Car-Coupling. (*Accouplage de Chars.*)

Charles W. Spencer, Richmond, Mo., U.S., 15th May, 1884; 5 years.

Claim.—The combination, with a car draw head and an anchor-shaped link pivoted thereto, said link having upwardly and downwardly projecting hooks and a balance weight, of a bar J, extending horizontally, laterally from the rear side of the said balance-weight to the side of the car, thence extending upward and pivoted to the car at K, and thence horizontally as a lever-arm, the connecting rod *m*, and the elbow lever handle *n*, substantially as shown and described, whereby a link may be raised to disconnect it from another link either by a person on the ground beside the car, or by a person on the top of the car.

No. 19,350. Machine and Process for Spiralling Wire. (*Machine et Procédé pour Tordre le Fil de Fer en Spiral.*)

Gerham Gray, Boston, Mass, U. S., 15th May, 1884; 5 years.

Claim,—1st. The process of indenting or grooving wire spirally which consist in imparting the desired configuration and spirality to the wire, by drawing the same through a revolving set of rotating dies, substantially as set forth. 2nd. The described machine for indenting or grooving wire spirally, composed of the bed or base-plate A, pedestal B having bearing C, tubular arbor D, constructed with the enlargement T, die-frame H, provided with a series of hardened rollers I, operating-mechanism consisting of the miter wheels P and D, shaft bearings N, N, and drum M, the whole constructed and combined to operate, substantially in the manner and for the purpose set forth.

No. 19,351. Hydro-Carbon Furnace. (*Fourneau à Hydrocarbure.*)

John B. McDonald, Chicago, Ill., U. S., 15th May, 1884; 5 years.

Claim.—1st. In a hydro-carbon furnace, the combination of the steam-coil E, steam chamber F, oil chamber H, steam syphon G and connecting-pipes and valves, substantially as described and for the purpose set forth. 2nd. In a hydro-carbon furnace, the combination of the pipes *a*, *b*, *l* and *k*, provided with the substantially described valves and the coil E, steam chamber F, oil chamber H and steam syphon G, substantially as and for the purpose hereinbefore set forth. 3rd. In a hydro-carbon furnace, the steam coil E, steam chamber F, oil chamber H, syphon F and connecting-pipes and valves, combined and operating substantially as and for the purpose described. 3th. In a hydro-carbon furnace, the combination of the coil E, steam chamber F, oil chamber H, the substantially described pipes and valves, and the steam syphon G provided with the pipe M and valves P, substantially as set forth. 5th. In a hydro-carbon furnace, the combination of the coil E, pipe *a*, steam chamber F, oil chamber H, steam syphon G, and pipes *b* provided with the valves *c*, *i* and *e*, and the down pipe *g*, and the pipe *gt*, provided with the valve *h* for the removal of sediment, substantially as described and for the purpose set forth.

No. 19,352. Hose. (*Tuyau Elastique.*)

John Murphy, Brooklyn, N. Y., U. S., 15th May, 1884; 5 years.

Claim,—1st. As an article of manufacture, a hose containing an interior and exterior layer of rubber, and interposed between said layers of rubber, a textile fabric cut straight, surrounded by a textile fabric cut on the bias, substantially as set forth. 2nd. In a hose, the combination, with a textile fabric cut straight, of a textile fabric cut on the bias and so arranged that the textile fabric cut on the bias is outside of the textile fabric cut straight, substantially as and for the purpose set forth.

No. 19,353. Hay Knife. (*Couteau à Foin.*)

William H. Carter and Josepk R. Bodwell, Hallowell, Me., U.S., 15th May, 1884; 5 years.

Claim.—1st. A hay knife having a curved blade A, provided on one side with grooves *c*, *c* running at an acute angle to the edge and quite across the blade, all substantially as described. 2nd. In a curved hay knife, a series of grooves inclined on the side towards the edge and approximately vertical on the other, as and for the purpose set forth.

No. 19,354, Hinge. (*Penture.*)

Wallace H. Carter and Joseph R. Bodwell, Hallowell, Me., U.S., 15th May, 1884; 5 years.

Claim.—The hinge, herein described, consisting of a part *c* for connection with the door, the part *e* pivoted to a bracket or equivalent device secured to the floor, and the segment *a* connecting the parts *c* and *e*, the whole being arranged and operating substantially as described.

No. 19,355. Trunk Castor. (*Roulette de Coffre.*)

Sigismund M. Michilson and George Sylvester, Milwaukee, Wis., U. S., 15th May, 1884; 5 years.