saturated and coated with a compound of glycerine and gelatine, substantially as and for the purpose specified. Ilth. In a hydrocarbon liquid supply and distributing apparatus for metrical carburine combination with the distributing chamber located in the meter case and having a contained measuring wheel, a liquid pipe connectarnused and operating, substantially as described. 12th. In a hydrocarbon liquid supply and distributing apparatus for metrical carburetters, a displacing chamber having a supply pipe valve and displacer, in combination with the distributing chamber having a content measuring wheel, a liquid pipe, connecting equalizing pipe, bydrocarbon liquid supply and distributing chamber having a content measuring wheel, a liquid pipe, connecting equalizing pipe, bydrocarbon liquid supply and distributing apparatus for metrical carburetters, the tray Dz being open above the line of fluid, for the air to be carburetted, in combination with the distributing chamber as it to be carburetted, in combination with the distributing chamber contents against the distribution chamber contents against the distribution of the distribution chamber contents against the carburetted to a displacing chamber contents against the carburetted of the distribution chamber contents against the carburetted of the distribution chamber contents against the distribution of the distribution chamber contents against the distribution of the distribution carburetted the distribution of the distribution carburetted the distribution of the distribution carburetted the distribution carburetted the distribution carburetted the distribution carburetted the distributio art to be carburetted, in combination with the distributing channel having a contained measuring device suitably connected with, and taining a displacer and connected to a displacing chamber conforting a displacer and a valve by a liquid pipe, substantially as and for the purpose described.

No. 18,673. Car-Coupler. (Accouplage de Chars.)

William V. Brown and Thomas S. Poole, Arcadia, N. S., 13th February ruary, 1884; 5 years.

ruary, 1804; 5 years.

Claim.—1st. In a car-coupler having a pin setting and tripping defore and being arranged to hold the coupling link or bar up level, allow vertical play of the link and to hold the part b of the draw-bar pin-setting having the coupling the draw-bar having the joint a and the spring d, to level, substantially as described. 2nd. In a car-coupling having the and the spring, and the spring i for setting the pin, the said block a draw-bar having a joint a, and the part b of the draw-bar having from behind and being provided with the shoulders f, substantially as described.

No. 18,674. Car-Coupling. (Accouplage de Chars.)

Dorsey P. Kahl, Lineville, Pa., U. S., 13th February, 1884; 5 years.

Claim.—lst. The combination, with the draw-head A, of the solid guards C, the stud h secured therein, and one or more linked-shaped dent springs to thrust it forward, and adapted to draw against the traw-head, substantially as specified. 2nd. The combination, with inserted in the draw-head A and the guards C having shoulders e, of the keys foundination, with the draw-head A and the guards C, of the rods h, springs c and the block D, as shown and described.

No. 18,675. Fire-Escape. (Sauveteur d'Incendie.)

Thomas Macdonough, Chebeygan, Mich., U. S., 13th February, 1884;

Claim.-1st. the taim.—lst. A collapsible basket F made in sections, as described, with sections being secured together by light chains, in combination of the basket and suitable mechanism to retain said cables in positions for a fire-escape, substantially as described. 2nd. A fire-escape described, or two spools or reels connected together, substantially as real, a basket or cage through the handle of which the cables pass, to a window, the whole constructed and dapted to operate in combination of the cables and modern the whole constructed and adapted to operate in combination of the cable on its hooks, as described, the cables C of secured to the cables B by hooks D, the basket F having handles through which may be mechanism, substantially as described, whereby said spools operating, substantially as and for the purpose set forth.

No. 18,676.

Apparatus for Crimping the ends upon Circular Cans and Preparing them for Soldering. (Appareil pour Cambrer le bout des Boîtes Métalliques Circulaires et les Préparer pour

William West, Keene, Ont., 14th February, 1884; 5 years.

Claim.—lst. In a machine for crimping the ends upon circular sombination with the disk D, mounted upon the end of a rotating shaft B, in being the disk D, mounted upon the shaft P, said shaft devialent devices a substantially as and for the purpose herein the disk D by the lever S and spring R, or described to and from the disk D by the lever S and spring R, or the movable can-holding disks D and O, as shown, the adjusting and tally a nuts E, to regulate the position of the disk D, substantially and sherein described. 3rd. The can-holding disks D and O, as shaft pespectively bed. 3rd. The can-holding disks D and O, as a harf respectively upon the shaft B having a rotary motion, and have N mounted upon the shaft H, turning in a movable journal described. The can-holding and crimping machine consisting of the disk D, substantially as and for the purpose herein described. 4th. The can-holding and crimping machine consisting of boding the the disk D, substantially as and for the purpose herein continuing disks D and O, and the movable crimping flange N, in herein described. 5th. The combination, with the holding and substantially as a shown, of the inclined track or way V, and the substantially as sherein described. 6th. The combination, with the holding and substantially as herein described. 6th. The combination, with the substantially as herein described. 6th. The combination, with the holding and crimping disks, as shown, of the inclined way or track U, William West, Keene, Ont., 14th February, 1884; 5 years.

the endless carrying chain V, and the elongated acid bath c, substantially as and for the purpose herein described. 7th. In combination with the way or track U, and the endless chain moving above the track, upon pulleys W, the boxes a of the shaft Z, having the vertically movable elastic supports b, substantially as and for the purpose herein described. 8th. The elongated acid trough c placed at one side of the way or track U, in combination with the cup or trough c, and the tank d closed at the top and having an opening at the side near the bottom, whereby the level of the acid in the trough c is maintained substantially as herein described maintained, substantially as herein described.

No. 18,677. Traction Attachment for Road Engines. (Appareil de Traction pour Locomotives Routières.)

Albert S. Hanscom, Moorhead, Minn., U. S., 16th February, 1884; 5 years.

years.

Claim.—1st. In a traction attachment for road engines, the combination of the driving-wheels A, A, frames B, B, track-chains C, C and tension springs E, E, substantially as shown and described. 2nd. In a traction attachment for road engine, the combination of the cylinders K, K, piston rods H, H and I, I, and springs G, G, for raising the guide-wheel and throwing the entire weight of the machine on the driving-wheels, substantially as described. 3rd. In a traction attachment for road engines, the combination of driving-wheels A, A, connected by a track chain C, the frames ", B and M, axles T and X, the sliding blocks D, D, bars F, F and springs E, E for regulating the tension of the track chain, the guiding-wheels N carried by the forward end of the frame M, and means for raising said frame and guiding-wheels, whereby the entire weight of the machine is thrown on the driving-wheels, substantially as shown and described.

No. 18,678. Fire-Escape. (Sauveteur d'Incendie.)

Daniel R. Clymer, Reading, Penn., U.S., 16th February, 1884; 5

vears.

Claim...-1st. In combination with a building to which they may be adapted, and with the floors, joists, trimmers and ceilings thereof, a series of well holes F provided with removable floor doors G, and ceiling doors H hung on hinges I and secured by hooks K and staples J, or their equivalents, and concealed within the well holes thus arranged, a flexible ladder L permanently hung therein, the whole constructed, arranged and adapted to be used, substantially as and for the purpose described. 2nd. In a building, a series of well holes F piercing through floor and ceiling, as described, and provided with floor doors G, ceiling doors H and a flexible ladder L permanently secured therein, the said wells being placed two or more feet horizontally on floor plan to one side of the well opening above or beneath the same, whereby the descent is made from story to story on an unbroken landing, substantially as and for the purpose set forth. 3nd. In combination with the landing floor of a fire-escape well and its ladder, as described, the openings V, caps V1, bar R R1, or staples T, the chains O, loops or rings P, or swivel buttons S, whereby the ladder is steadied between floors, as and for the purpose set forth. 4th. In combination with a fire-escape well provided with door f, the door H connected by the hinges I to the rear trimmer C1, said door being extended rearward into a space provided therefor, whereby said door, when released, will drop into a vertical position without crushing the ceiling, substantially as shown and for the purpose set forth. 5th. In combination with a fire-escape well provided with door G, so that a movement of the latter will give an alarm floor door G, so that a movement of the latter will give an alarm begured against unwarranted intrusion, substantially as and for the purpose set forth. Claim .- 1st. In combination with a building to which they may be purpose set forth.

No. 18,679. Device for Manufacturing Car Wheel Tires. (Appareil pour la Fabri-cation des Bandages de Koues des Chars.)

James A. Facer and Adolph Schawb, Philadelphia, Penn., U.S., 16th February, 1884; 5 years.

February, 1804; 3 years.

Claim.—1st. The combination of the hammer-die A comprising the main portion m with central projection α in front, and the anvil die B having a projection b and flat face n, the projection a being above the projection b. and the face n of the anvil die being of substantially the same dimensions as the portion m of the hammer die, as set forth. 2nd. The combination of the anvil die B with the hammer die A having a projection a, the lower face of which is some distance above the face m of the said die, as set forth. 3rd. The combination of the anvil die B and its projection b, with the hammer die A having the projection a formed with a groove w, as set forth.

No. 18,680. Sewing Machine. (Machine à Coudre.)

William Redett, Fredericksburg, Ohio, U.S., 16th February, 1884; 5

years.

Claim.—Ist. In a sewing machine, the combination of a crank, a pivoted pitman, shuttle-driving lever connected at one end to said pitman by a universal joint and having the shuttle-carrier secured at its opposite end, and feed-driving levers connected by universal joints to said shuttle lever and connected to the feed-bar, as set forth. 2nd. In a sewing machine, the combination of the levers G and H, said levers having a circular motion, substantially as described, with the feed-bar I provided with a longitudinal slot k, and a vertical slot i, by means of which the ends of the levers are adapted to operate the said feed bar, as set forth. 3rd. In a sewing machine, the combination, with the slotted feed-bar, of the levers G. H and adjustable fulcrums g, h, said levers being connected to and operated by the shuttle lever, as set forth. 4th. In a sewing machine, the combination of the needle plate P with the piece w, hole u and recess w, with the shuttle provided with a spring point, as set forth. 5th. In a sewing machine, a shuttle carrier adapted to embrace the shuttle and carry it free and clear of any bearing or supporting surface, and provided at one end with a spring retainer, and at its opposite end with a locking stitch, as set forth.