

No. 29,369. Boiler. (Chaudière.)

George F. Nilsson, Belmont, Mass., U.S., 19th June, 1888; 5 years.

Claim.—1st. In a boiler of the character described, the combination of the following instrumentalities, to wit: a body, a vertical pipe *I* having said body at the rear on the under side thereof, a transversely arranged pipe connected centrally with said vertical pipe and extending through the boiler casing, a transversely arranged pipe disposed on the bridge wall near the fire-box and extending through the casing, inclined pipes connecting the ends of said transverse pipes outside the casing, a transversely arranged pipe disposed on the bridge wall under the rear end of the boiler and extending through the casing, the ends of said pipe being connected with the transverse pipe which is connected with said vertical pipe, a transversely arranged pipe passing through the casing near the forward end of the boiler, inclined pipes connecting said pipe with the transverse pipe at the rear of the bridge wall, and vertical pipes connecting the ends of the transverse pipes and the body of the boiler below the water line, all being arranged to operate substantially as set forth. 2nd. In a boiler, a series of longitudinally and transversely arranged horizontal pipes connected with each other and with the body of the boiler below the water line, said pipes being disposed in, or partially in, the fire-box, and a flue leading from the fire-box to the smoke stack or chimney and adapted to be connected with conducting pipes for conveying the hot water to points at a distance from the boiler for heating purposes, substantially as described. 3rd. In a boiler, the body or boiler proper *A* having the flues *d* and dome *E*, the vertical pipes *z*, *r*, *i*, transverse pipes *z*, *m*, *j*, *k*, inclined pipes *g*, *v*, *o*, bridge wall *h* and casing *D*, combined and arranged to operate substantially as set forth.

No. 29,370. Pump. (Pompe.)

Henry A. French, Dimondale, Mich., U.S., 19th June, 1888; 5 years.

Claim.—1st. The combination, with the upper and lower cylinders, of the hollow casting or coupling piece *C* formed in a single piece independent of the cylinders, with three branches or pipes having a continuous unobstructed communication, the main branch forming the connection between the cylinders, and the air and discharge pipes connected respectively with the other two branches, as set forth. 2nd. The casting or coupling connection *C* forming three hollow tubes having a continuous unobstructed communication, which tubes are arranged on the same horizontal plane, as set forth. 3rd. The combination, with the upper and lower cylinders, the hollow casting or coupling *C*, formed in a single piece and comprising three tubes or branches, the main tube connecting at its top and bottom respectively with the upper and lower cylinders, and the air and discharge pipes connecting with the upper ends of the two remaining branches, the several branches of the casting having an unobstructed communication, as set forth. 4th. The casting or coupling piece *C* made in a single piece, with three branches or tubes having a continuous unobstructed communication with each other, two of the branches being closed at their lower ends only while the remaining branch is left open at both ends, as set forth. 5th. The combination, with the upper and lower cylinders, of the hollow casting *C* made independent of the cylinders and provided with the tubes or branches, two of the branches being closed at their lower ends, the air and discharge pipes of the pumps connecting respectively with the tops of such branches, and the other branch being open at both ends the upper and lower cylinders connecting respectively with such ends, as set forth. 6th. The casting or coupling piece *C* made of a single piece with three branches or tubes, the central or main branch being open at both ends which are screw threaded, and the other two branches being open only at the top and screw threaded at such ends, as set forth. 7th. The combination, with the upper and lower cylinders, of the hollow casting *C* connecting the cylinders, and comprising three tubes or branches, the main branch connecting respectively at its top and bottom with the upper and lower cylinders, and the air and discharge pipes arranged parallel with each other side by side, and having their lower ends connecting respectively with the two remaining branches of the casting, as set forth. 8th. The combination, with the upper and lower cylinders, of the casting *C* comprising three hollow branches or tubes, one of which serves as the connection for the cylinders, the air and discharge pipes arranged side by side and connecting with two other branches, all three branches having a continuous unobstructed communication, and the air pipe extending up so as to provide a support for the handle, as set forth. 9th. The upper and lower cylinders threaded at their lower and upper ends, in combination with the coupling piece threaded at its upper and lower ends to receive the said threaded ends of the cylinders, whereby the cylinders may be constructed of different metal from the coupling piece and replaced at will, as set forth.

No. 29,371. Snow Scraper. (Grattoir à neige.)

John W. Haines, Fort Fairfield, Me., U.S., 19th June, 1888; 5 years.

Claim.—1st. The combination of the side boards forming runners, the adjustable scrapers, the hand levers for adjusting said scrapers, and the fenders constructed as set forth and arranged on the top of the scrapers against the forward ends of the runners, substantially as described. 2nd. The combination of the side runners having top front and rear cross-braces, and a central brace carrying fulcrum brackets, hand levers mounted in said brackets and having link rods secured to the front ends, the slotted scrapers to the rear portion of which the link rods are also connected, the pivot bar *C*, the beams *C* and *d*, the hinged fenders *D* and the brace strips *E*, substantially as described.

No. 29,372. Brush and Mop Holder.

(Manche de brosse et de torchon.)

Martin Bourke, Youngstown, Ohio, U.S., 19th June, 1888; 5 years.

Claim.—1st. In a brush or mop holder, a suitable head having a series of straight teeth pointed at their ends, in combination with a clamping device consisting of two sections connected together by a clamping screw, and adjustable on the teeth and removable therefrom,

substantially as and for the purpose set forth. 2nd. In a brush or mop holder, a head provided with inwardly projecting spurs, and a series of straight and pointed teeth, in combination, with an adjustable and removable clamping device consisting of two independent sections connected together by a clamping screw, one of said sections having means for attaching thereto a suitable handle, and the other section having holes or perforations through which pass the teeth and spurs to act in connection with the spurs on the head when the device is used for holding a brush, substantially as and for the purpose specified.

No. 29,373. Smoke Consuming Furnace.

(Fourneau fumivore.)

Alexander Kerr and George H. Kendall, Montreal, Que., 19th June, 1888; 5 years.

Claim.—1st. The combination, with a furnace, of the fire-bridge provided with a channel and perforated coping as described, with a blowing apparatus and pipe connecting the blowing apparatus with the said channel in the fire-bridge, the said pipe being situated in the combustion chamber, so that the air passing through it will be highly heated before arriving in the said channel, the whole substantially as described. 2nd. The combination of the boiler *A*, furnace *A*, fire-bridge *B* having channel *G* and perforated coping *G*, with blower *L* and pipe *K*, having a coil as described and arranged to pass through the combustion chamber *C*, whereby the air passing from the blower is heated before passing into the channel *G*, the whole substantially as described.

No. 29,374. Brake-Shoe for Railways, etc.

(Sabot de frein pour chemins de fer, etc.)

Joseph Pollock and Edward G. Gregory, Selma, Ala., U.S., 19th June, 1888; 5 years.

Claim.—The within described improved brake-shoe, composed of a cast metal body having rods of a softer metal than the body extending entirely through it and cast in it, as herein described.

No. 29,375. Watermelon Holder.

(Porte-melon d'eau.)

George H. Moser and Charles R. Dake, Belleville, Ill., U.S., 19th June, 1888; 5 years.

Claim.—A package holder formed of one continuous wire bent into parallel lines held apart by braces or spacers, and the ends held in opposite ends of a tubular handle, whereby the wire loop thus formed may be wrapped about the package, and through its end passed the handle so as to draw the wire tightly around the package, as described.

No. 29,376. Two-Wheeled Vehicle.

(Voiture à deux roues.)

John Galligan, (Assignee of Byron J. Healey), Kalamazoo, Mich., U.S., 19th June, 1888; 5 years.

Claim.—The combination of the body fulcrumed at the forward end, and the axle with the spring consisting of two connected coils made from a single strip of metal, said coils being inverted in their relative position to each other, the inner end of the rear coil being rigidly attached to the axle, and the inner end of the forward coil being attached to the body in the relation shown, substantially as set forth.

No. 29,377. Top Prop or Cushion.

(Appui de capote de voiture.)

William S. Coleman, (Herbert P. Switzer (Co-inventors with Albert C. Armentrout) and Edward C. Haysler, Salisbury, Md., U.S., 19th June, 1888; 5 years.

Claim.—1st. A yielding top-rest or cushion, comprising in a single element a socket to receive its supporting rod, and spring arms to embrace the bow, as set forth. 2nd. A rubber top-rest or cushion comprising in a single element, a socket to receive its supporting rod, and spring arms to embrace the bow, all formed integral as set forth. 3rd. A rubber top-rest or cushion comprising in a single element, a socket to receive its supporting rod or arm, and spring arms to embrace the bow, the adjacent faces of said arms being inclined, substantially as and for the purpose specified. 4th. A rubber cushion or rest *f* rim with longitudinal aperture *a*, arms *b*, *c* having inclined faces, and hollowed out beneath said inclined faces, and provided with a cut away portion *h*, as shown, to form a spring between the bottom bows and the support of the cushion, as described. 5th. The combination, with the seat extension side arms and folding top, of a rod *b* secured to the back of said seat, and the rubber cushions on said arms and formed with spring arms to embrace and hold against vertical and endwise movement the lower bow of said top, as set forth. 6th. The combination, with the seat and folding top, of the brackets *c*, secured to the back of said seat, the rods supported by said brackets, nuts *d* on the ends of said rod, and the cushions *E* on said rod between said brackets and nuts, substantially as described.

No. 29,378. Manufacture of Explosives and Cartridge for Containing such Explosives. (Fabrication des explosifs et des cartouches pour ces explosifs.)

The Compagnie Générale des Explosifs Favier, (assignee of Arthur Favier), Paris, France, 20th June, 1888; 5 years.

Claim.—1st. The agglomeration under pressure, with or without heat, of the mixture of nitrate of ammonia, with a waterproof hydrocarbon, substantially as described. 2nd. The ensuring of the detonation of these mixtures by explosive bodies placed in the centre of the cartouche, and capable of producing detonation by the discharge of a fulminating capsule, substantially as described and illustrated in the accompanying drawings. 3rd. The combination, with a com-