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## INVENTIONS PATENTED.

NOTE.—Patents are granted for 18 years. The term of years for which the fee has been paid, is given after the date of the patent.

### No. 40,181. Chemical Fire Engine.

(Machine chimique.)

The Muskegon Chemical Fire Engine Co., assignee of Randall Tompkins Van Valkenburg, Muskegon, Michigan, U.S.A., 1st September, 1892; 6 years.

*Claim.*—1st. In a chemical fire engine, the combination of two hose reels journalled in line with each other, and provided with hollow journals at their inner ends communicating with the hose upon the reels, a three-way valve communicating with the generator or generators and with either or both of the reels, through bearings formed at opposite sides of said valve, and into which the hollow journals of the reels engage, substantially as described. 2nd. In a chemical fire engine, the combination of two generators provided with separate valve controlled discharge pipes, a common discharge pipe into which said separate discharge pipes communicate, and three-way valve communicating with said common discharge pipe, and two hose reels having hollow journals communicating with the valve ports of said three-way valves, and with the hose on the reels, substantially as described. 3rd. In a chemical fire engine, the combination of the separate receptacle provided with the perforated vessel for containing a dry chemical, the inlet pipe entering said receptacle near the bottom, and extending near the top thereof, and the outlet pipe through the top extending to near the bottom of said receptacle, substantially as described. 4th. In a chemical fire engine, the combination with the frame, of the two generators supporting thereon, the receptacle N supported upon the frame between the generators, the valve controlled discharge pipes M of the generator, the common discharge pipe M<sup>1</sup> into said receptacle, the discharge pipe P through the top of said receptacle, the three-way valve on the pipe P, and stuffing boxes R<sup>1</sup> secured on opposite sides of said valve, and the hose reel having hollow journals engaging into said stuffing boxes, substantially as described. 5th. In a chemical fire engine, the combination of the generator A, a separate receptacle G on top thereof, and a mixing and distributing shelf Y secured within said generator below the separate receptacle, substantially as described. 6th. In a chemical fire engine, the combination with a generator, a separate receptacle of globular form constructed in halves, the lower half being secured in the top of the generator, and the upper half being detachably secured upon the lower half, and of bearings formed in the respective halves of the receptacle to receive the trunnions of a vessel containing a generating liquid, substantially as described. 7th. In a chemical fire engine, the combination with a generator of a separate receptacle constructed in halves, the lower half being secured upon the generator and the upper half forming a hinged cover for the lower half, a vessel provided with trunnions by means of which said vessel is suspended in bearings in said receptacle, a handle engaging with one of the trunnions of said vessel and a stopper secured to the end of a vertical screw in the upper half of the

receptacle, and adapted to seal the mouth of said receptacle, substantially as described. 8th. In a chemical fire engine, the combination with the separate receptacle adapted to receive and discharge a liquid charge contained in a globular vessel, substantially as described, of a globular vessel consisting of two half globular bottles banded together, substantially as described. 9th. In a chemical fire engine, the combination with a separate receptacle adapted to receive and discharge a liquid charge contained in a globular vessel, substantially as described of a globular vessel consisting of two half globular bottles banded together by a metal loop secured in an annular groove formed in the said bottles, and of a long and a short trunnion secured to said metal loop, said long trunnion being adapted to project through its bearing in the receptacle and receive a crank handle, substantially as described. 10th. In a chemical fire engine, the combination with a generator A, of a globular receptacle C constructed in two halves, the upper half being hinged to the lower half, the annular flange I<sup>1</sup> formed on the respective halves and provided with a suitable packing and means of securing the two halves together, the bearings formed in said flanges, the globular vessel consisting of two half globular bottles J bonded together and provided with trunnions J<sup>1</sup> adapted to engage into the aforesaid bearings, the handle applied to one of said trunnions and the stopper K secured to a vertical screw in the upper half of the receptacle and adapted to seal the mouth of each bottle, substantially as described.

### No. 40,182. Vehicle. (Voiture.)

William Edwin Stevens, South West Oswego, New York, U.S.A., 1st September, 1892; 6 years.

*Claim.*—1st. The combination, with the pole pivoted upon the hound and provided with futchels, of a spring extending back under the axle, forward under the pole, and adjustably connected to the futchels, as set forth. 2nd. The combination, with the brake beam connected by a draw and lever bar to the front end of the pole, of a brake shoe holder secured upon each end of the brake beam, a slide on each holder, a frame fitting in said slide, a brake shoe secured to the frame, and a spring connecting the frame to the brake beam.

### No. 40,183. Vise. (Etau.)

David Charles Sabourin and Joseph Sabourin, both of Lowell, Massachusetts, U.S.A., 1st September, 1892; 6 years.

*Claim.*—1st. The combination of the fixed jaw and fixed segmental nut with the movable jaw and a segmental screw supported thereon and adapted to be rotated in one direction to engage said nut, and to be rotated in the other direction out of engagement with said nut, as and for the purpose specified. 2nd. The combination of the fixed jaw and fixed segmental nut with the movable jaw and a segmental screw supported thereon and adapted to be rotated in one direction to engage said nut, and to be rotated in the other direction out of engagement with said nut, the combined angles measured by the threaded portions of said nut and screw being less than three hundred and sixty degrees, as and for the purpose specified. 3rd. The combination of the fixed jaw, the fixed segmental nut, the movable jaw, the slide secured to said movable jaw, the segmental screw turning in said slide and movable longitudinally therein, the engaging ends of the threads of said screw and nut being bevelled or narrowed the more readily to engage with each other, and a spring arranged to move said screw forward in said slide when said screw and nut are disengaged, and adapted to yield to allow a backward movement of said screw in said slide when said bevelled end portions of said threads are in contact with and passing each other, as and for the purpose specified. 4th. The combination of the fixed jaw, the fixed segmental nut, the stationary ways, the movable jaw, the slide secured to said movable jaw and supported on said ways, the segmental screw turning in said slide and movable longitudinally