

No. 685,626.

Patented Oct. 29, 1901.

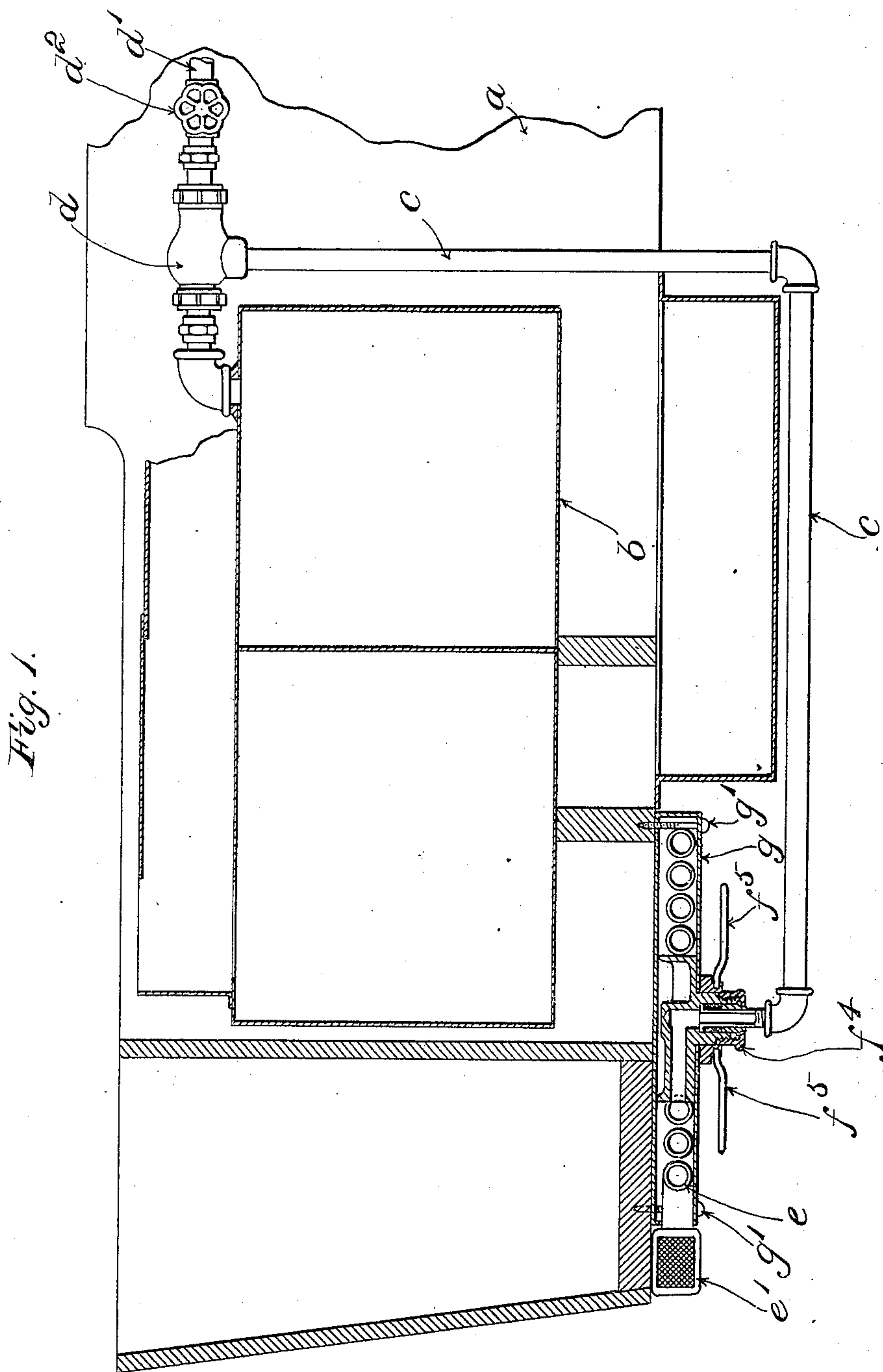
W. B. MASON.

TANK FILLING DEVICE FOR STEAM PROPELLED VEHICLES.

(Application filed Aug. 31, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:

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Fig. 3.

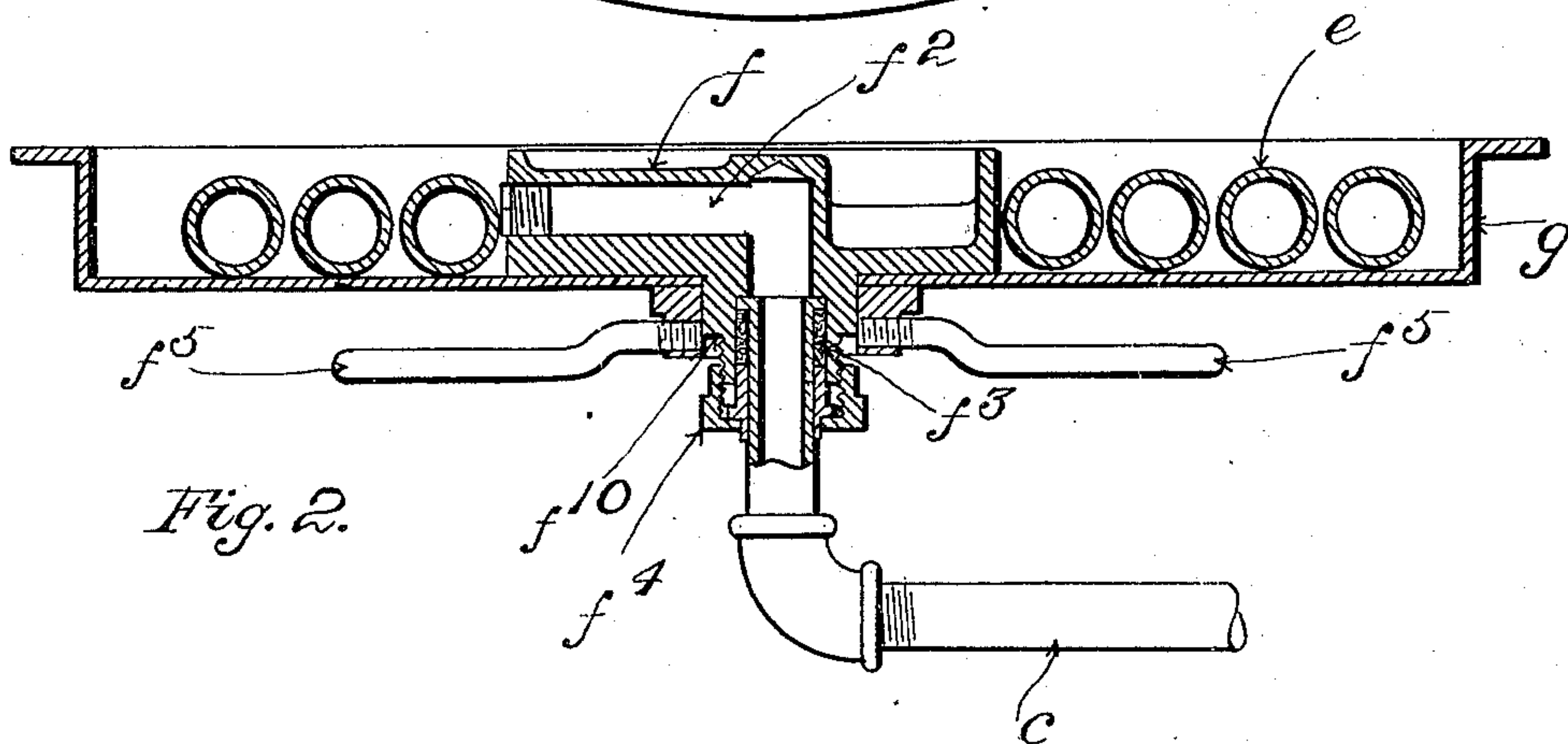
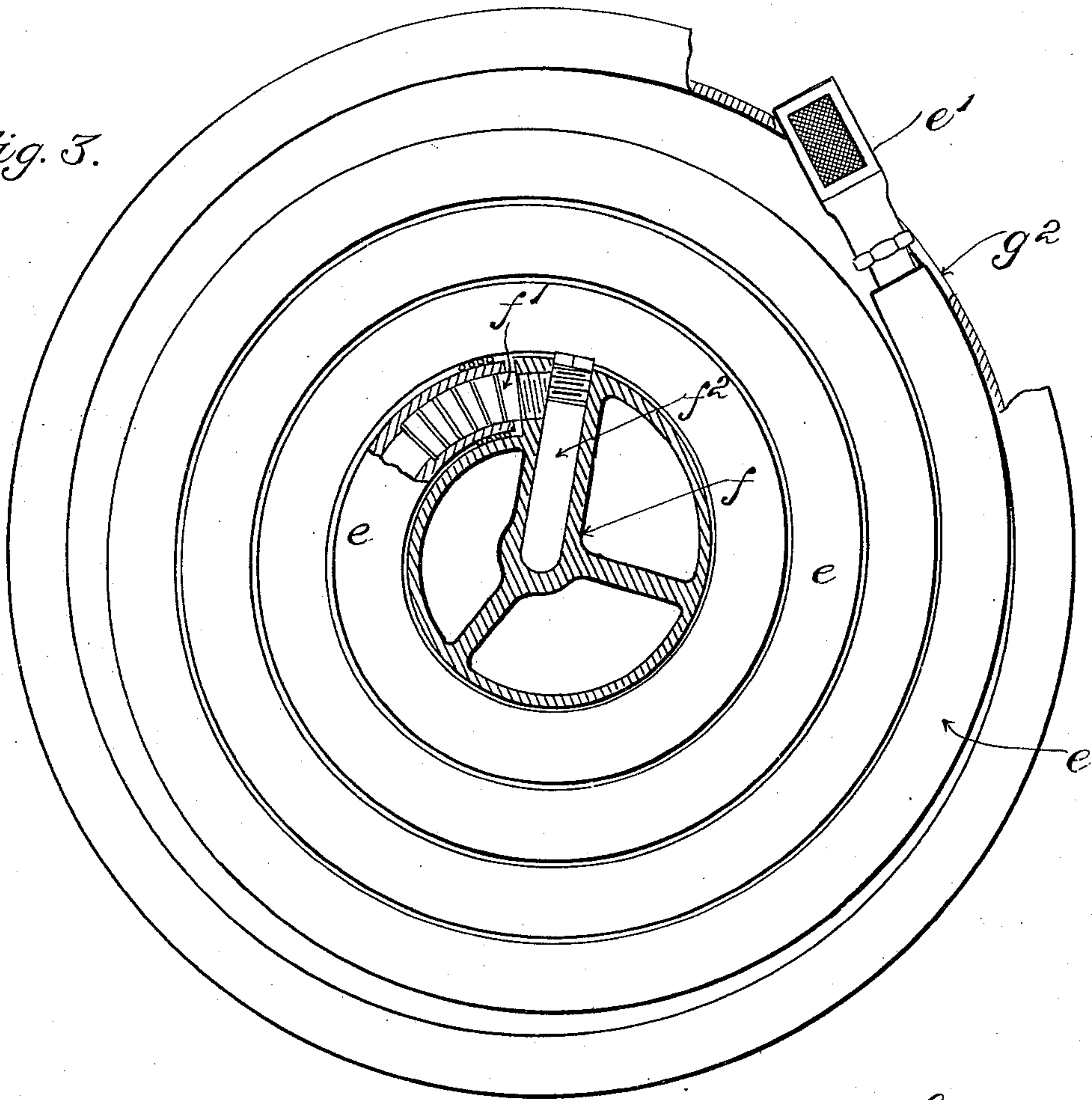


Fig. 2.

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# UNITED STATES PATENT OFFICE.

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## TANK-FILLING DEVICE FOR STEAM-PROPELLED VEHICLES.

SPECIFICATION forming part of Letters Patent No. 685,626, dated October 29, 1901.

Application filed August 31, 1901. Serial No. 70,877. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM B. MASON, a citizen of the United States, residing at Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Water-Tank-Filling Devices for Steam-Propelled Motor-Vehicles, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention comprises means designed for enabling the water-tank of a steam-propelled motor-vehicle to be filled quickly and readily from any conveniently-accessible store of water. One aim in view in connection with the invention has been to provide means for enabling the said water-tank to be refilled with quickness and convenience, whenever desired, from a stream, pond, or similar supply of water—as, for example, when the contents of the water-tank run low during a trip through the country.

Much inconvenience frequently is experienced by persons using motor-vehicles in consequence of exhaustion of the water-supply during trips at places where water is near at hand, but where facilities for transferring the same to the water-tank of the vehicle are deficient or entirely lacking.

The invention consists in the combination, in a motor-vehicle, with the water-tank thereof, of a suction-pipe of suitable length to enable the same when extended to reach from the vehicle to the body of water from which the desired supply is to be drawn, means for drawing water through the said suction-pipe and forcing it into the water-tank, and means for storing the said suction-pipe in compact shape on the vehicle.

The invention will be described with reference to the accompanying drawings, in which the preferred embodiment thereof is illustrated.

In the drawings, Figure 1 is a view in section on a vertical plane, showing a portion of a motor-vehicle having the said embodiment of the invention applied thereto. Fig. 2 is a similar view, on a somewhat-enlarged scale, showing only the suction-pipe and the parts which are more immediately associated therewith. Fig. 3 shows, mainly in plan, the parts of Fig. 2, with certain portions thereof in sec-

tion on a horizontal plane and part of the casing broken away for the purpose of more clearly presenting features that otherwise would be concealed.

Having reference to the drawings, part of the body of a motor-vehicle is indicated at *a*, Fig. 1, the water-tank being indicated at *b*, same figure. At *c* is shown piping for conveying water toward the said water-tank. The said piping has combined therewith means for producing a flow of water there-through and forcing or injecting the said water into the water-tank. The said means may vary in practice and may or may not be such as that illustrated in the drawings. Preferably I employ a device *d*, Fig. 1, acting on the well-known injector principle, the steam-pipe thereof being designated *d'* and the valve, or, more properly, the controlling-handle thereof, being designated *d''*.

The suction-pipe is shown at *e*. It is constituted of a length of hose having the inner end thereof in permanent though disconnectible communication with the piping *c* and the outer end thereof supplied with a grated suction-box *e'*, the latter being intended to be plunged into the store of water from which the needed supply is to be drawn.

A considerable length of hose is employed, sufficient to reach from the motor-vehicle to a store of water within convenient proximity to the motor-vehicle. I therefore provide in connection therewith means for taking up and storing the said hose when it is not in use.

The said means preferably is constructed after the fashion of a reel and arranged to wind up the said hose when it is desired to store the latter and to unwind and deliver up the required length thereof for use at any given time.

Such a form thereof is illustrated in the drawings. It is provided with a rotary head *f*, with which the inner end of the suction pipe or hose *e* is connected, as shown in Fig. 3, by a suitable coupling device, as *f'*.

The rotation of the said head winds the suction pipe or hose *e* upon the exterior thereof, preferably in the form of a flat spiral within a flat casing *g*, that is attached by bolts *g'* to the bottom of the body *a* of the vehicle.

This arrangement enables the construction to be kept very compact, and inasmuch as the incased apparatus fits closely against the



said body and does not project to any noticeable extent it is not conspicuous nor in the way. The head  $f$  is furnished with a hub  $f^{10}$ , projecting through casing  $g$  and having  
 5 fitted thereto one end of the piping  $c$ . The said head is formed with a water-passage  $f^2$ , leading from the coupling  $f'$  to the center of the head and thence lengthwise of the said hub  $f^{10}$ . In the illustrated construction the  
 10 corresponding end of piping  $c$  enters into the bore of hub  $f^{10}$ , the joint between the two being suitably packed, as at  $f^3$ , and provided with a gland  $f^4$ . This mode of connecting the head and piping permits the head to rotate as the hose  $e$  is unwound therefrom or re-  
 15 wound thereon. For convenience in turning or rotating the head, as in winding the hose upon the same, the hub  $f'$  has connected therewith a series of radiating arms or handles  $f^5$ . In order that the hose  $e$  may wind smoothly and compactly in a perfect spiral, the head  $f$  is formed of a volute or snail shape in plan, as shown in Fig. 3, the inner  
 20 end of the hose being attached to the radially-projecting end of the portion of greatest diameter and beginning to wind upon the portion of least diameter, the difference between the said diameters being equal to the diameter of the hose itself.  
 25 The casing  $g$  has a hole in the side thereof at  $g^2$ , Fig. 3, through which the suction pipe or hose  $e$  is drawn. Preferably in practice the length of the said suction pipe or hose will be just sufficient to fill the interior space  
 30 of the casing when such length is coiled up, leaving the suction-box  $e'$  projecting slightly at the opening  $g^2$ .

I claim as my invention—

1. In combination, in a self-propelled vehicle, the vehicle-body, the water-receptacle  
 40 carried thereby, means for forcing water into the said water-receptacle, the flexible suction-pipe in communication with the said means and receptacle, and a take-up to retract the said suction-pipe when not in use.
2. In combination, in a self-propelled ve-

hicle, the vehicle-body, the water-receptacle carried thereby, means for forcing water into the said water-receptacle, the flexible suction-pipe in communication with the said  
 50 means and receptacle, and a rotary take-up to retract said suction-pipe when it is not in use.

3. In combination, in a self-propelled vehicle, the vehicle-body, the water-receptacle carried thereby, a reel in communication with  
 55 said receptacle, a suction-pipe wound on said reel, and means for occasioning a flow of water into the water-receptacle.

4. In combination, in a self-propelled vehicle, the vehicle-body, the water-receptacle  
 60 applied thereto, the reel having a passage-way for water communicating with said water-receptacle, the flexible suction-pipe connected with the said reel, and means to cause a flow of water through said pipe and reel  
 65 into the said receptacle.

5. In combination, the water-receptacle, the rotatable hub having a volute-shaped exterior and a passage-way for water communicating with said water-receptacle, a flexible  
 70 suction-pipe wound on the said hub, and means for forcing water into the said water-receptacle.

6. In combination, the water-receptacle, the rotatable hub having a passage-way for  
 75 water communicating with said water-receptacle, the injector, and the flexible suction-pipe wound on the said hub.

7. In combination, the water-receptacle, the rotatable hub having a passage-way for  
 80 water communicating with said water-receptacle, the injector, the flexible suction-pipe wound on the said hub, and the casing enclosing said hub and suction-pipe and having the opening through which the suction-pipe  
 85 may be drawn.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM B. MASON.

Witnesses:

CHAS. F. RANDALL,  
 WM. A. MACLEOD.