

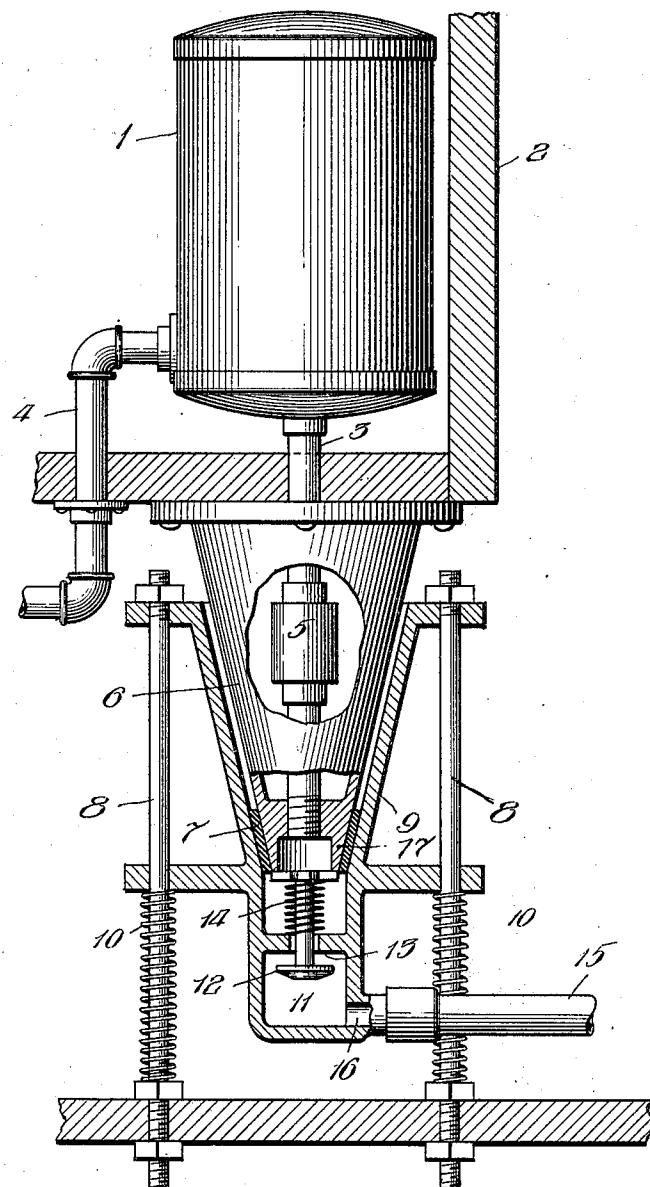
B. MEYER.

VALVE MECHANISM.

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999,392.

Patented Aug. 1, 1911.



WITNESSES

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VALVE MECHANISM.

999,392.

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To all whom it may concern:

Be it known that I, BARNEY MEYER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Valve Mechanism, of which the following is a specification.

This invention relates to valve mechanism particularly adapted for use upon and in connection with elevators carrying storage or reservoir tanks.

It is the essential object to produce a durable, efficient, and comparatively economical mechanism, that will permit the air or other liquid under pressure to be automatically admitted into a storage tank or reservoir, carried by the elevator car, the valve mechanism being yieldably mounted to permit of accurate contact and engagement of the valve and reservoir connections for automatically opening communication therebetween when in operative position.

The invention further consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawing is shown in sectional elevation a preferred form of said valve mechanism in operative engagement with a supply pipe communicating with an air tank or reservoir carried by the elevator car.

As indicated, a tank or reservoir 1 is positioned within the elevator or car body 2, said tank or reservoir having a fluid inlet pipe 3 for admitting air or other liquid under pressure thereinto, and having a discharge or outlet pipe 4 which may communicate with an elevator signal device or other mechanism. The fluid inlet pipe 3 is provided with a check valve 5. A conical casing 6 is shown secured to the bottom of the elevator car about the intake pipe 3, its lower end carrying a gasket 7.

The valve mechanism is preferably mounted in a yieldable frame or support comprising side arms or rails 8 carrying a yieldable valve frame 9 which is normally maintained in extreme upper position by means of coil springs 10 about the frame arms or rails 8 beneath the movable valve frame 9. Within the lower valve chamber 11 is mounted a plunger valve 12, normally held in closed engaging position with a valve seat 13 by

means of a spring 14 about the valve stem. A flexible hose or pipe 15 admits liquid under pressure through the inlet 16 into the base of the valve chamber.

If it is desired to charge the storage tank or reservoir 1 the elevator car is brought into lowermost position, and the flexible mounting of the parts tends to compensate for any slight irregularities in the elevation of the car. When the reservoir inlet pipe 3 has been brought into register and contact with the valve mechanism, the valve 13 is automatically opened and the air or other fluid under pressure is permitted to flow therethrough into the tank or reservoir 1, and the check valve 5 prevents any back flow or travel therefrom.

It is not essential, although desirable, to use the conical casing 6, provided with the end valve contact 17 and end gasket 7, since it tends to insure an air-tight fitting and connection between the parts.

Obviously, the storage reservoir which is carried upon the elevator car can be used for any purpose desired to supply fluid under pressure, and it is not intended to limit the invention for supplying compressed air to an operator's signal device or the gates of the elevator shaft; and as this mechanism is automatic, it requires little or no attention in the way of maintenance or repairs.

I claim:

In combination with an elevator car, a storage reservoir carried therewith having a depending inlet pipe provided with a check valve, a conical casing secured to the car about the inlet pipe, a yieldable valve frame provided with a tapered chamber, springs upon which the frame is mounted, said frame being adapted to receive the casing to bring the inlet pipe into register therewith, a fluid supply valve, a fluid supply pipe communicating with the supply valve, the seating of the inlet pipe opening the fluid supply valve for admitting the fluid under pressure into the reservoir, and the unseating of the parts closing the inlet supply valve, substantially as described.

BARNEY MEYER.

Witnesses:

WALKER BANNING,
EPHRAIM BANNING.