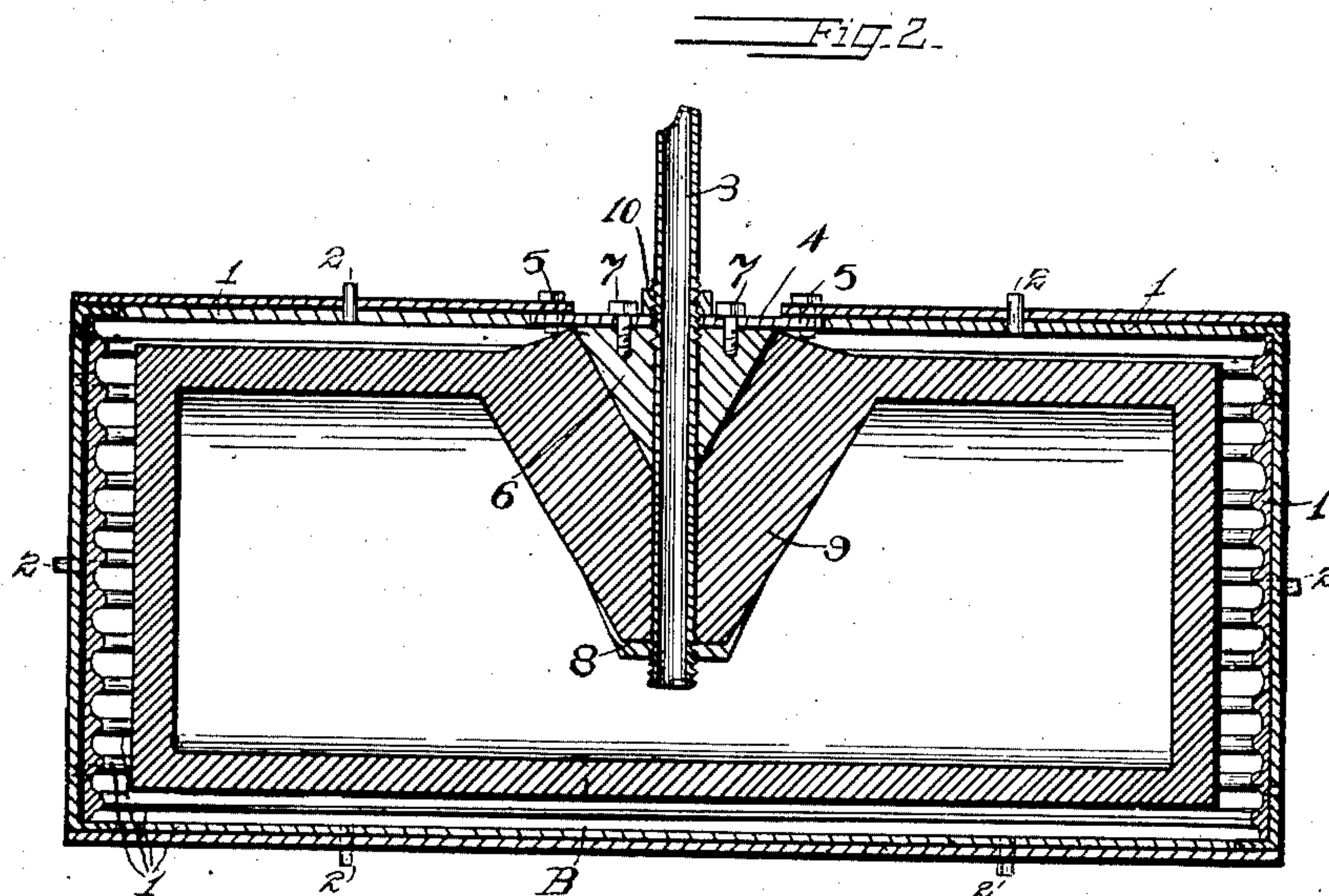
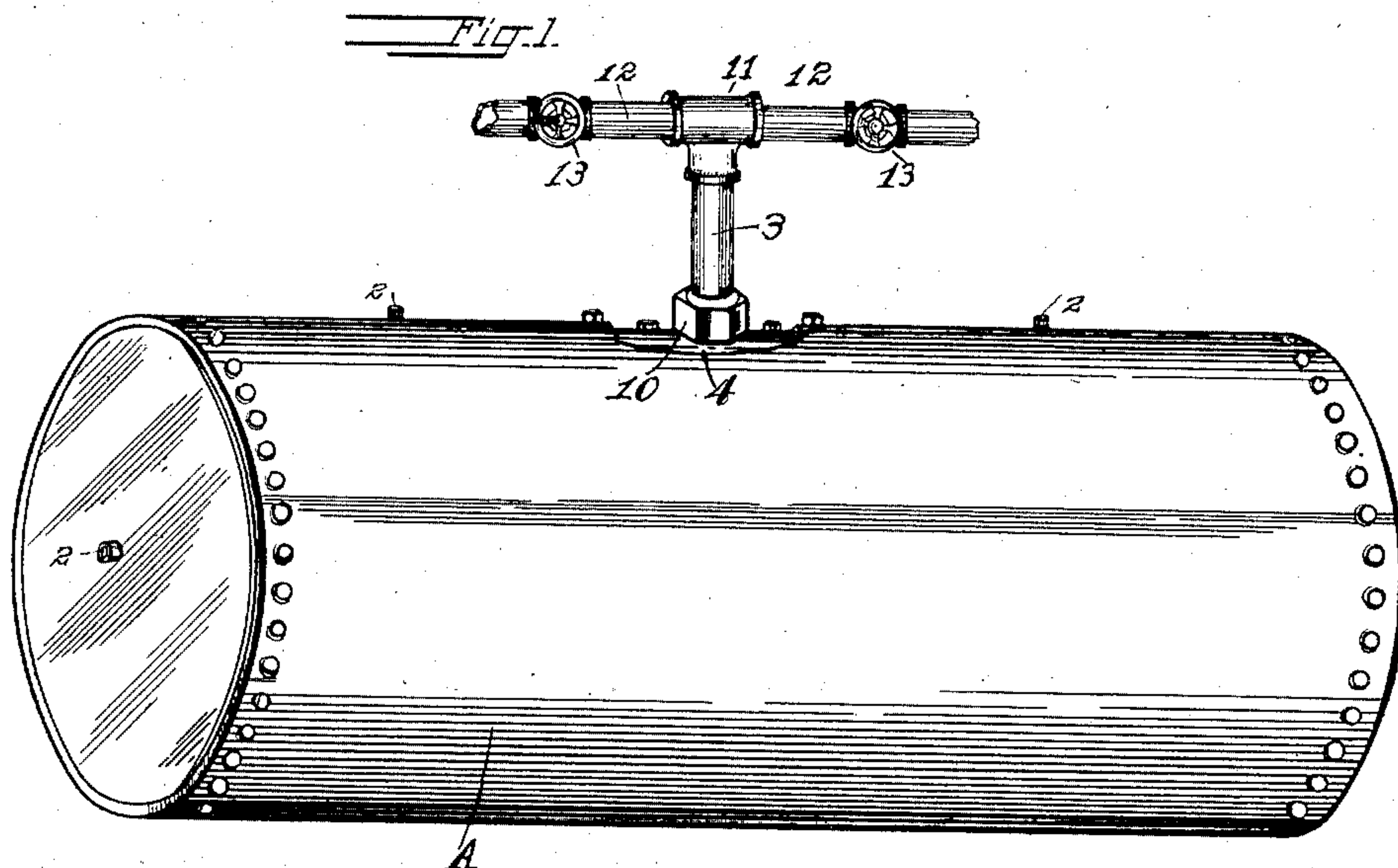


No. 868,548.

PATENTED OCT. 15, 1907.

W. J. GRIFFIN.  
COMPRESSED AIR TANK.  
APPLICATION FILED JULY 2, 1906.



Witnesses  
*Edgar H. Quincy*  
*A. A. Hammond*

Inventor  
*William J. Griffin*  
By *Thos. J. O'Brien*  
his Attorneys



# UNITED STATES PATENT OFFICE.

WILLIAM J. GRIFFIN, OF MORLEY, MICHIGAN.

## COMPRESSED-AIR TANK.

No. 868,548.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed July 2, 1906. Serial No. 324,428.

*To all whom it may concern:*

Be it known that I, WILLIAM J. GRIFFIN, a citizen of the United States, residing at Morley, in the county of Mecosta and State of Michigan, have invented certain new and useful Improvements in Compressed-Air Tanks, of which the following is a specification.

My invention relates to an improvement in compressed air tanks, the object being to provide a simple storage tank in which air is stored and compressed, the same being adapted for use for various purposes, as for instance, it may be utilized for blowing whistles, in factories operated by water power or electricity, electric cars, for setting brakes on cars, and for alarm whistles, gasoline engines and the like.

With the foregoing objects in view, my invention consists in an outer metal tank having an elastic lining spaced away from the walls of the outer tank and adapted to receive air and by its elasticity facilitate its utilization when discharged from the tank.

The invention further consists in certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1 is a view in perspective. Fig. 2 is a longitudinally vertical section.

A, represents the outer tank which may be of any suitable metal in the form of a cylinder or otherwise, and B is an inner elastic bag contained therein. The walls of the outer tank A are preferably corrugated as at 1, 1, the purpose of these corrugations being to allow greater expansion of the rubber bag so as to give the contained air greater power when discharged from the tank as the corrugations permit the bag to expand into the grooves when the bag is filled with air, affording lateral support for the bag. Vents, 2, 2 for the introduction and escape of air between the bag and the tank walls are provided.

A pipe 3, extends down into the tank through a plate 4 which latter is securely bolted as at 5, 5, to the tank. A cone, 6, is bolted to plate 4 by means of bolts 7, 7, and a cap-shaped nut 8 is screwed to the lower end of the pipe 3 between which nut 8 and cone 6, the thickened portion 9 of the rubber bag is secured, the latter being clamped firmly therebetween by means of the nut 10 located above the plate 4 on the pipe 3.

A pipe coupling 11 on the upper end of pipe 3 has

the pipe 12, 12, extending therefrom and valves 13, 13 in the pipes 12, 12 control the induction and eduction of air to and from the interior chamber of the elastic bag or envelop B.

In operation air is introduced into the bag or envelop B through the pipe 3 by opening one of the valves 13 and after the bag is filled, and expanded to its utmost, the valve is closed and the air is compressed and stored for future use, it being capable of being utilized for various purposes, in fact, for any purpose for which compressed air may be used.

In this way, an inexpensive and practical arrangement is provided for the storage and compression of air within small compass and for increasing its efficiency.

Slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth, but:

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. The combination with an outer tank having a corrugated interior and vents therein, of an elastic bag or envelop within the tank, a portion of the bag or envelop being thickened and having an opening there through, a threaded pipe extending through the opening and a cap-shaped nut and a cone to which the pipe is screwed and between which the thickened portion of the bag or envelop is held.

2. The combination with an outer tank having a corrugated interior and vents therein, of an elastic bag or envelop within the tank, a portion of the bag or envelop being thickened and having an opening there through, a threaded pipe extending through the opening and a cap-shaped nut and a cone to which the pipe is screwed and between which the thickened portion of the bag or envelop is held, a plate to which the cone is secured, said plate secured to the outer tank and a nut located outside of the plate and adapted to screw upon the pipe whereby to clamp the thickened portion of the bag or envelop between the cone and cap-shaped nut.

3. The combination with a tank having a corrugated interior and vents to the outside, of an elastic bag adapted to be expanded into the corrugations, of a pipe extending into the bag, a plate, a cone, the pipe screwed into the cone and a nut into which the end of the pipe screws.

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

WILLIAM J. GRIFFIN.

Witnesses:

L. L. BISSELL,

J. L. LAZIER.