No. 812,455. PATENTED FEB. 13, 1906.

J. ROGERS.

VALVE BAG.

APPLICATION FILED FEB. 29, 1904.

Fig. 1.

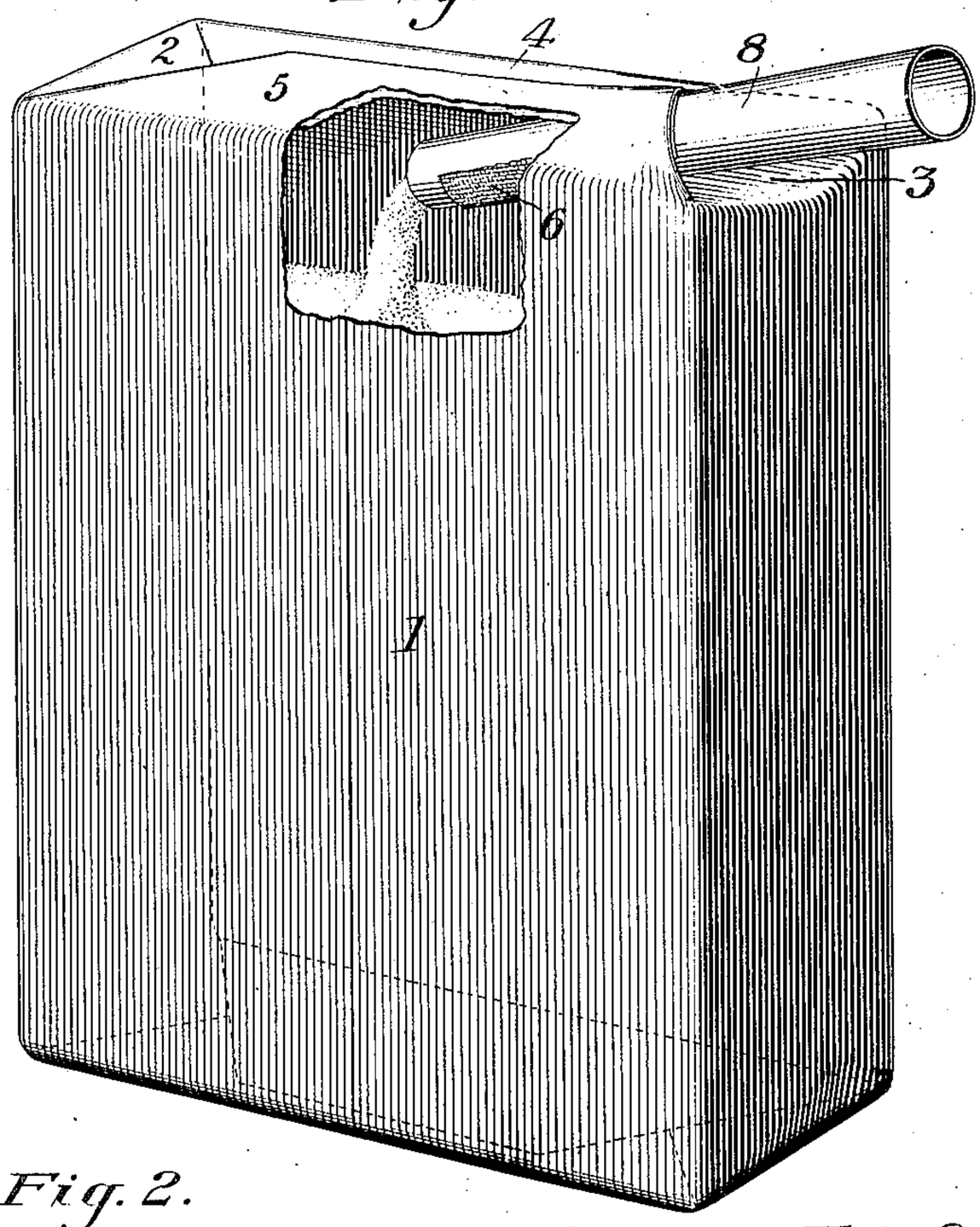


Fig. 2.

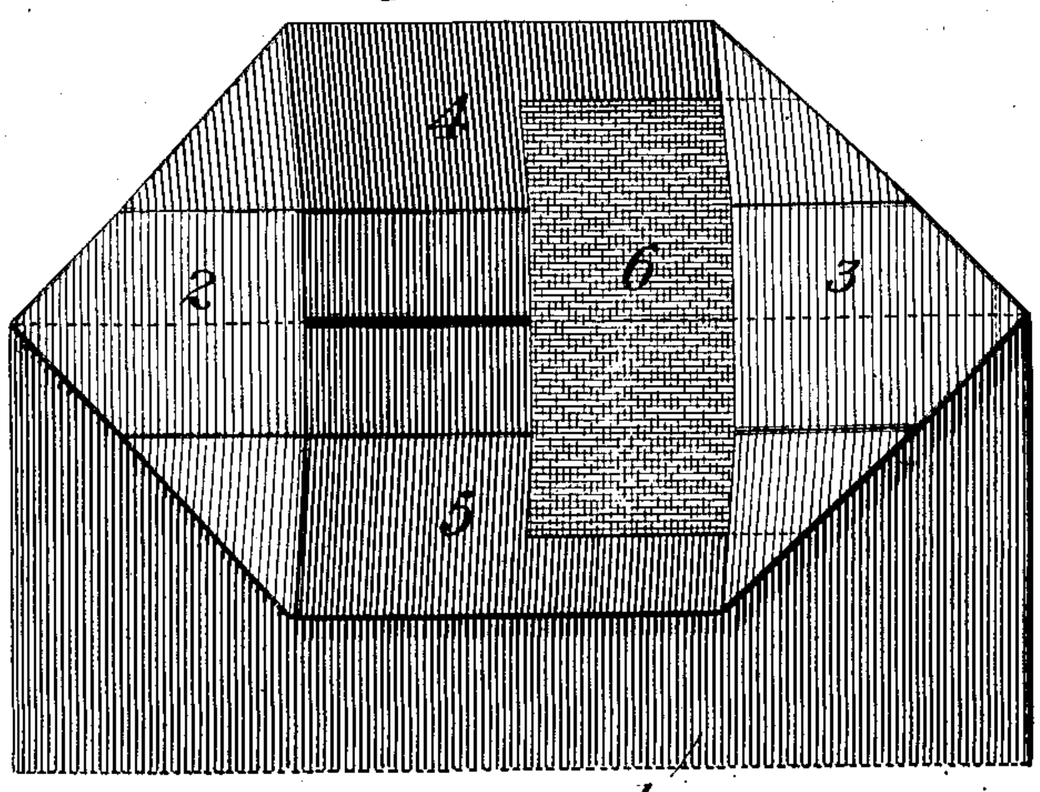
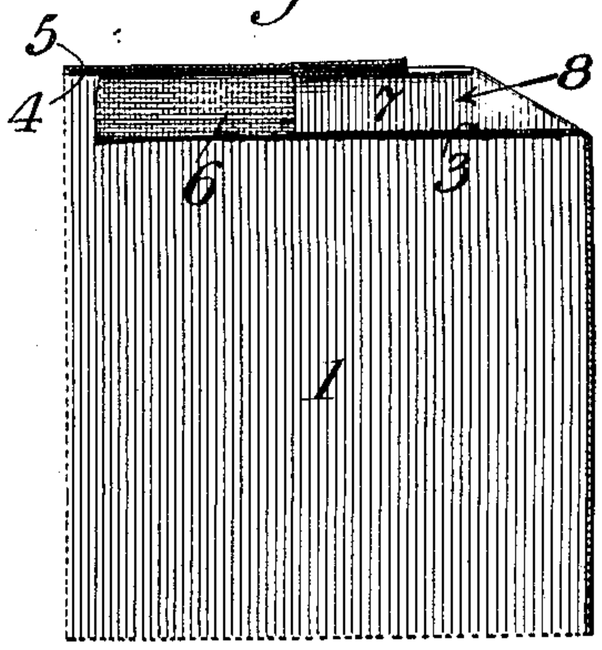


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE

JOHN ROGERS, OF CLEVELAND, OHIO, ASSIGNOR TO BATES VALVE BAG COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF WEST VIRGINIA.

VALVE-BAG.

No. 812,455. Specification of Letters Patent. Patented Feb. 13, 1906.

Application filed February 29, 1904. Serial No. 195,819.

To all whom it may concern:

Be it known that I, JOHN ROGERS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Valve-Bags, of which the following is a specification.

This invention relates to bags which are filled through a valve-controlled opening by means of a tube or funnel.

The improved bag, which is usually of paper, but may be of cloth, has a folded top and bottom and a lateral filling-opening extending between the folds of the top and in position to be closed by one of said folds, serving as a valve. In the preferred construction the bag has a diamond-folded top and bottom, the filling-opening being closed by one of the triangular primary folds, this valve-fold being reinforced by a cloth piece which underlies or overlies it and extends beyond its edge.

Referring to the accompanying drawings, Figure 1 is a perspective view of a paper valve-bag, showing the filling-tube inserted and the bag nearly filled. Fig. 2 is a perspective view of the partially-folded upper end of the bag, showing the cloth reinforce beneath the triangular valve-fold; and Fig. 3 is a transverse vertical section through the corner of the bag containing the filling-opening.

The paper bag 1, chosen for illustration, is closed at both its top and bottom by diamond folds comprising the triangular primary folds 2 3 and the finishing folds 4 5. In making the bag the primary folds 2 3 are first turned down and a cloth or paper reinforcing-piece 6 is inserted beneath or over the fold 3, its sides extending out over the finishing folds 4 5, to which it is preferably pasted. The inner finishing fold 4 is then turned down and pasted upon the primary fold 2, leaving the other primary fold 3 entirely free. The outer finishing fold 5 is then turned down and pasted across the fold 4. The reinforcing-piece 6 (shown as of cloth) is preferably of such width as to extend some distance beyond the edge of the valve-fold 3, thus both strengthening this fold and constituting a supplemental valve.

In filling the bag the primary fold 3 and cloth reinforce 6 are depressed to leave an opening 7 between them and the finishing folds 4 5, and the filling-tube 8 is inserted laterally through this opening. When the bag is filled and reversed, the weight of the material forces the valve-fold 3 and the cloth piece 6 against the finishing folds 4 5, thus positively and securely closing the filling-opening.

The utilization of one of the primary folds as a valve makes it possible to furnish a valve-bag at minimum cost, no extra material being required, as in prior constructions. The provision of a filling-opening between the folds makes it unnecessary to weaken the bag by cutting an opening through it. The filling-tube can be easily and quickly inserted between the primary valve-fold and the finishing folds, and when the bag is filled and reversed the valve end, then constituting a bottom, is precisely similar in appearance and strength to that of the ordinary bag.

In a copending application, Serial No. 195,818, of even date herewith I claim, broadly, the feature of the filling-opening adjacent to and in position to be closed by one of the folds of the top.

I claim—

A paper valve-bag having diamond-folded closures at each end, the folds being permanently secured, and a filling-opening in combination with a valve-like tube at or near one corner of the bag.

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

JOHN ROGERS.

Witnesses:
FRANK STONE,
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