O'Byrne & Yocum,

Water Tank,

No. 21,694. Patented Oct. 5, 1858.

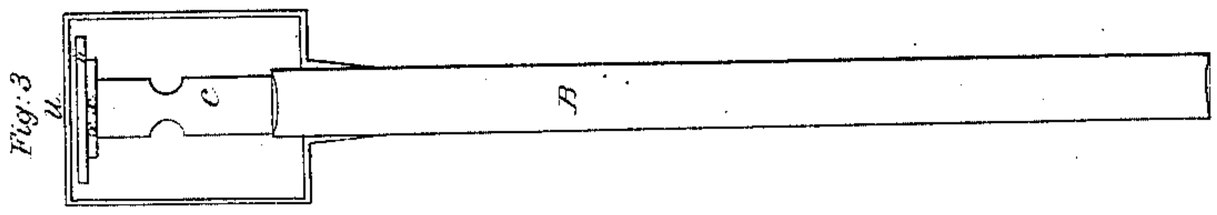

Fig: 3

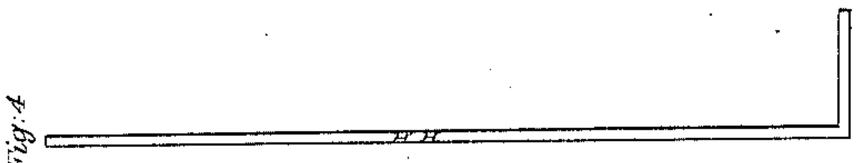

Fig: 4

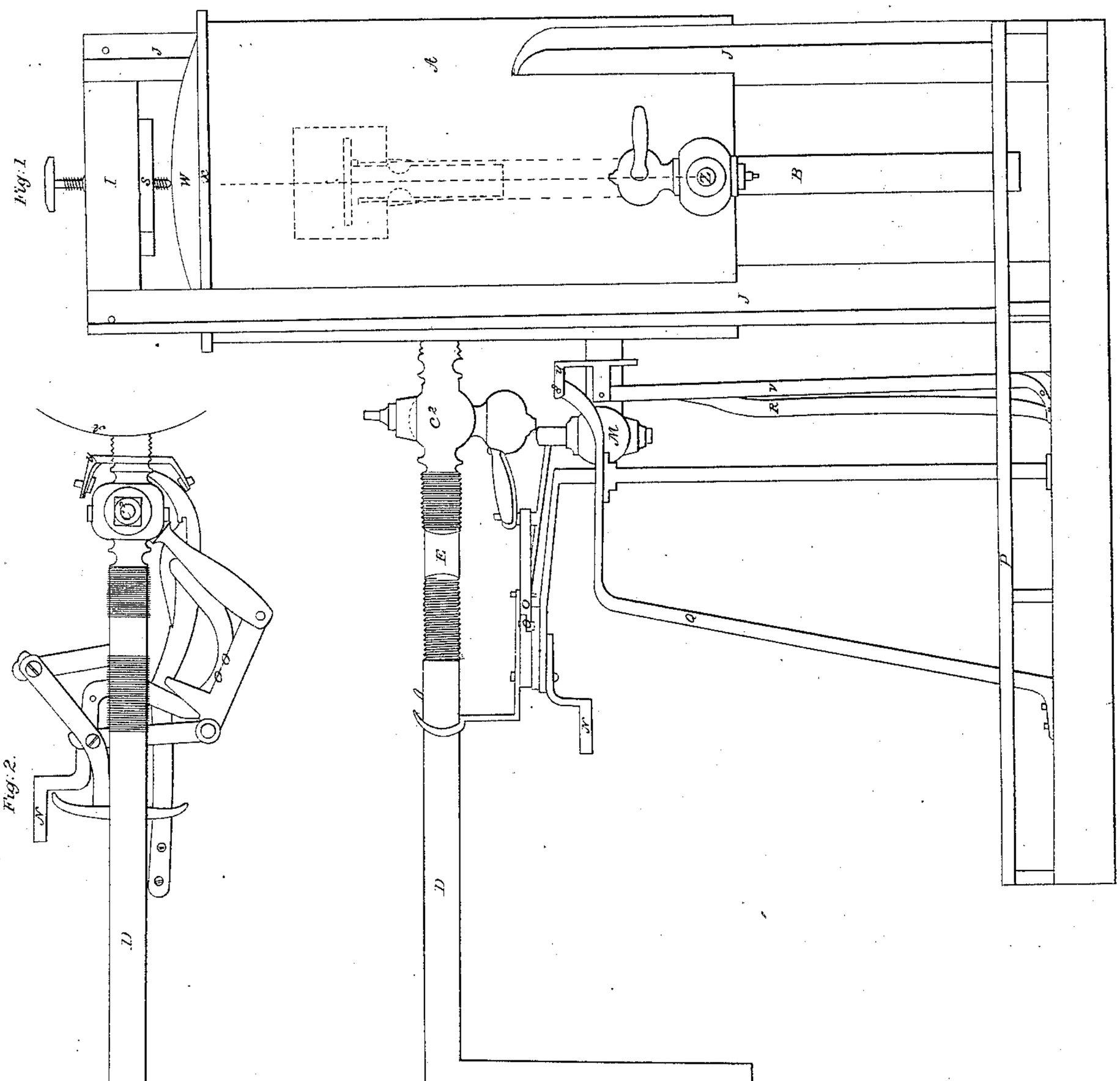

Fig: 1.

Fig: 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

S. H. YOCUM AND JAMES O'BYRNE, OF SHELBYVILLE, INDIANA.

STEAM WATER-TANK.

Specification forming part of Letters Patent No. **21,694,** dated October 5, 1858.

To all whom it may concern:

Be it known that we, SAMUEL H. YOCUM and JAMES O'BYRNE, of Shelbyville, in the county of Shelby and State of Indiana, have invented a new and Improved Mode of Constructing Steam Water-Tanks, which we have described in the following specification and illustrated by the accompanying drawings with sufficient clearness to enable others of competent skill to make and use our invention.

Our invention consists in the arrangement and combination of parts, hereinafter described, by which water is elevated and retained, as herein more fully set forth.

Figure 1 is a perspective view. Fig. 2 is a horizontal section. Figs. 3 and 4 are vertical sections.

The frame between which we set our tank is composed of four pieces of timber, J J J J, with notches to receive tank A and sustain it between them. Two of the timbers J J extend above tank A on opposite sides, so that cross-bar I passes over the center of the diameter of top W. Temper-screw Z passes through cross-bar I and plate S, so as to operate upon top W, to which is attached, on the under side, a gum-elastic gasket, X, so as to make an air-tight joint between top W and sides of tank A.

B is a pipe communicating with any well. The top of said pipe B is intended to be above the surface of the water in tank A, so that when a partial vacuum is formed in tank A water may ascend into tank A, but cannot pass out when the vacuum ceases to draw. Gage U is fastened to pipe B, so as to allow valve C to rise a sufficient height to permit water to pass from pipe B into tank A through two holes on opposite sides of valve C, as shown at Fig. 3, the upper end of valve C being closed by a gum-elastic gasket, X X, and held firmly by metal plate I I on top. The gum-elastic gasket on top of valve C is intended to close the upper end of pipe B and make it air-tight at all times, except when the vacuum draws it up against gage U, and the water flows into tank A until the vacuum is filled. A vacuum is produced in tank A by steam from any locomotive-boiler on railroad P by turning pipe D over the safety-valve of any locomotive. Steam may be forced into tank A through stop-cock G^2, which will immediately drive out the air at stop-cock M. Upon the plexus O O, attached to stop-cock G^2 and stop-cock M, also rests pipe D, which is made flexible by a gum-elastic connection, E, between pipe D and stop-cock G^2.

Q, R, and V are braces attached to collar Y.

F is a stop-cock or valve of any kind by which water may be drawn from tank A while steam is being introduced. H H is an air-pipe extending from valve F inside and reaching near top W of tank A, to permit air to pass up, so that the water may flow freely out whenever valve F is opened. When steam is introduced, it will afford sufficient pressure on the surface of the water in tank A; but in the absence of steam the air-pipe will be necessary, and is made for that contingency.

To operate steam-tank A, as described, apply the hand to crank N, attached to plexus O O, turn toward railroad P, and when at right angles therewith introduce steam through pipe D, which will expel the air from tank A through stop-cock M. As soon as the air is driven out sufficiently, turn pipe D again parallel with railroad P by crank N, and plexus O O closes the stop-cocks air-tight, when the steam immediately condenses and the vacuum forms and the water rises in pipe B and flows into the tank A through holes in valve C.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The extension of pipe B above the bottom and inside of tank A, in combination with valve C and gage U, or their equivalents, in the manner and for the purposes herein set forth.

2. The flexible pipe D and stop-cocks G^2 and M, in combination with plexus O O and air-tight tank A, as herein set forth.

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Witnesses:
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