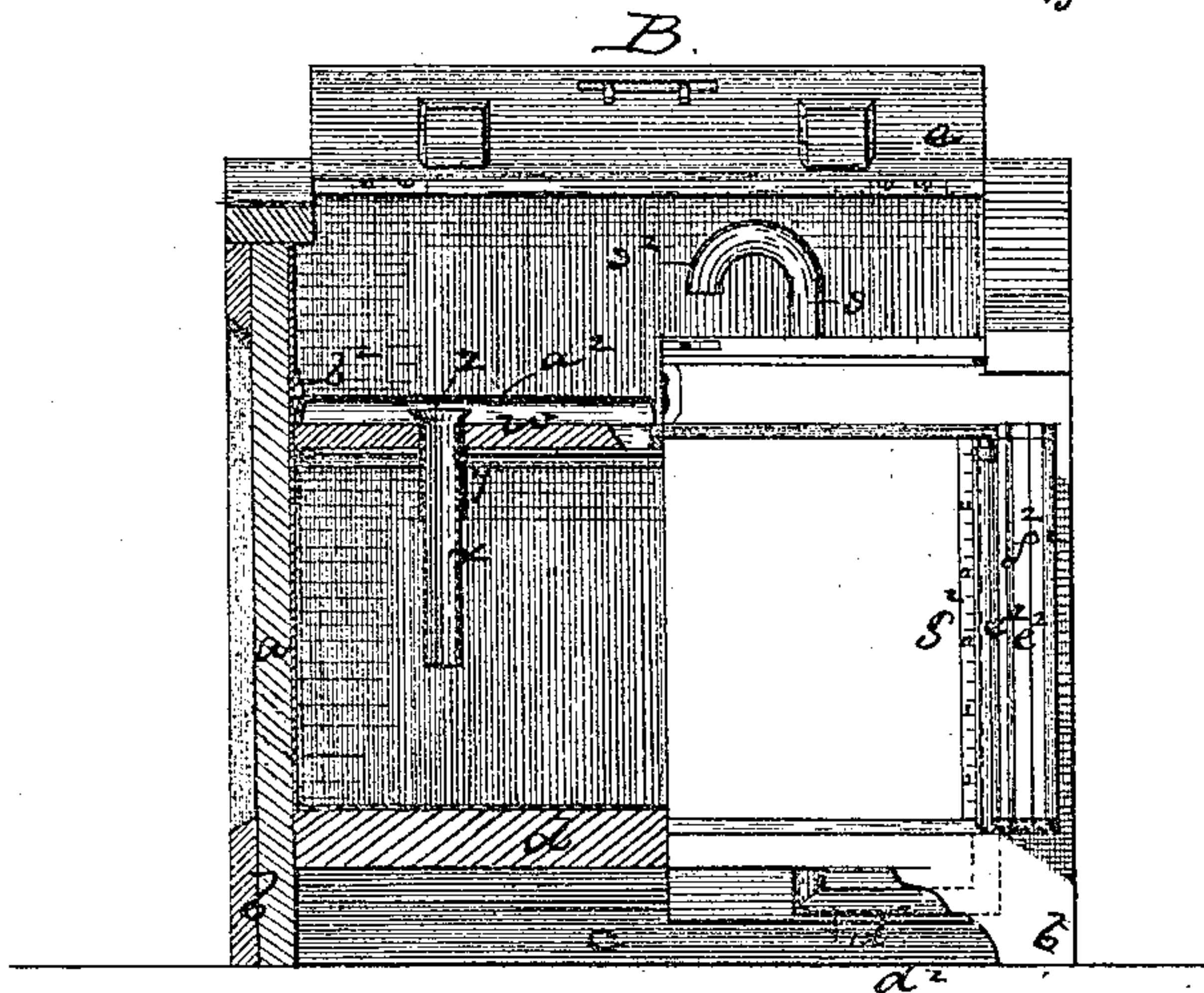
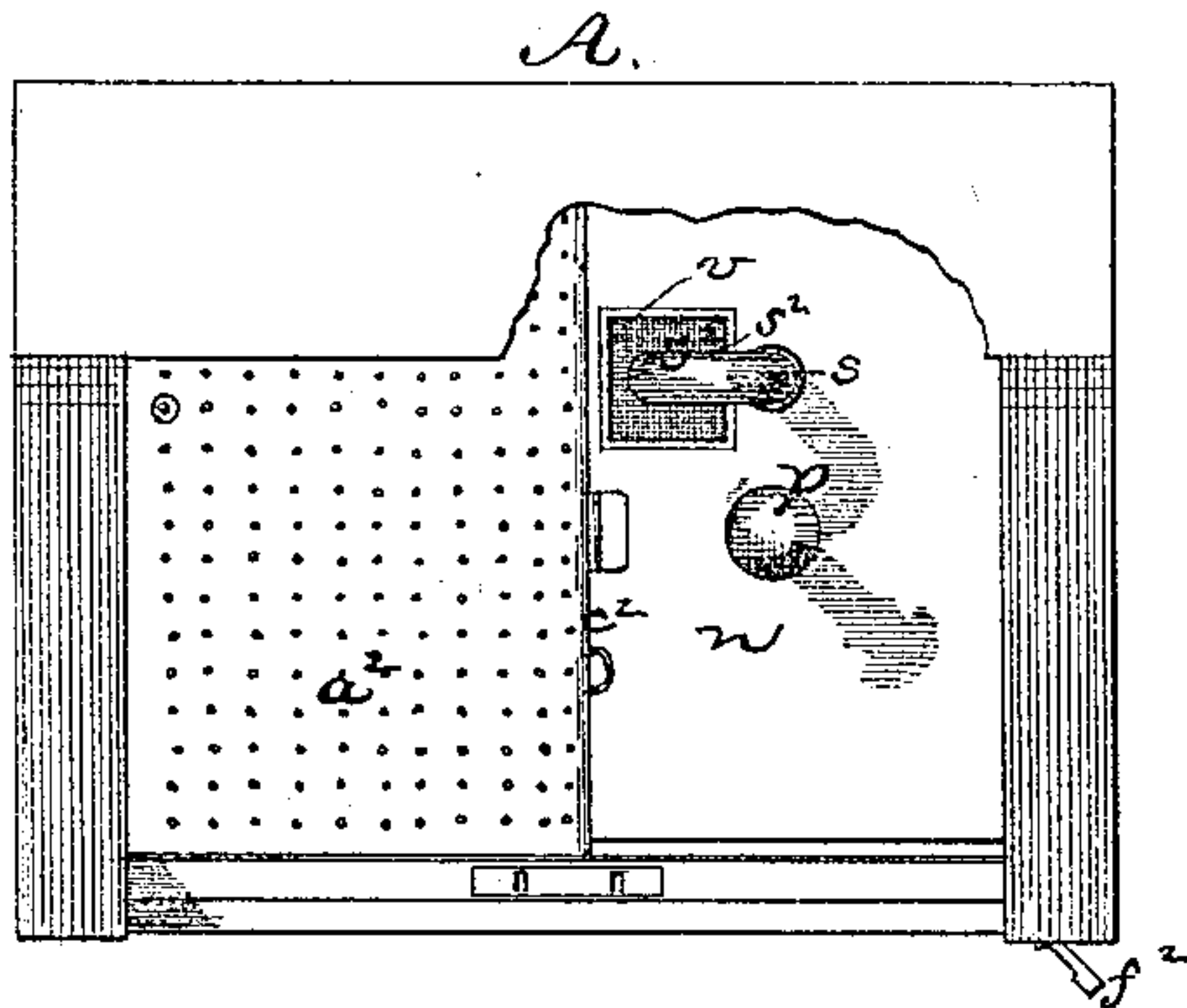
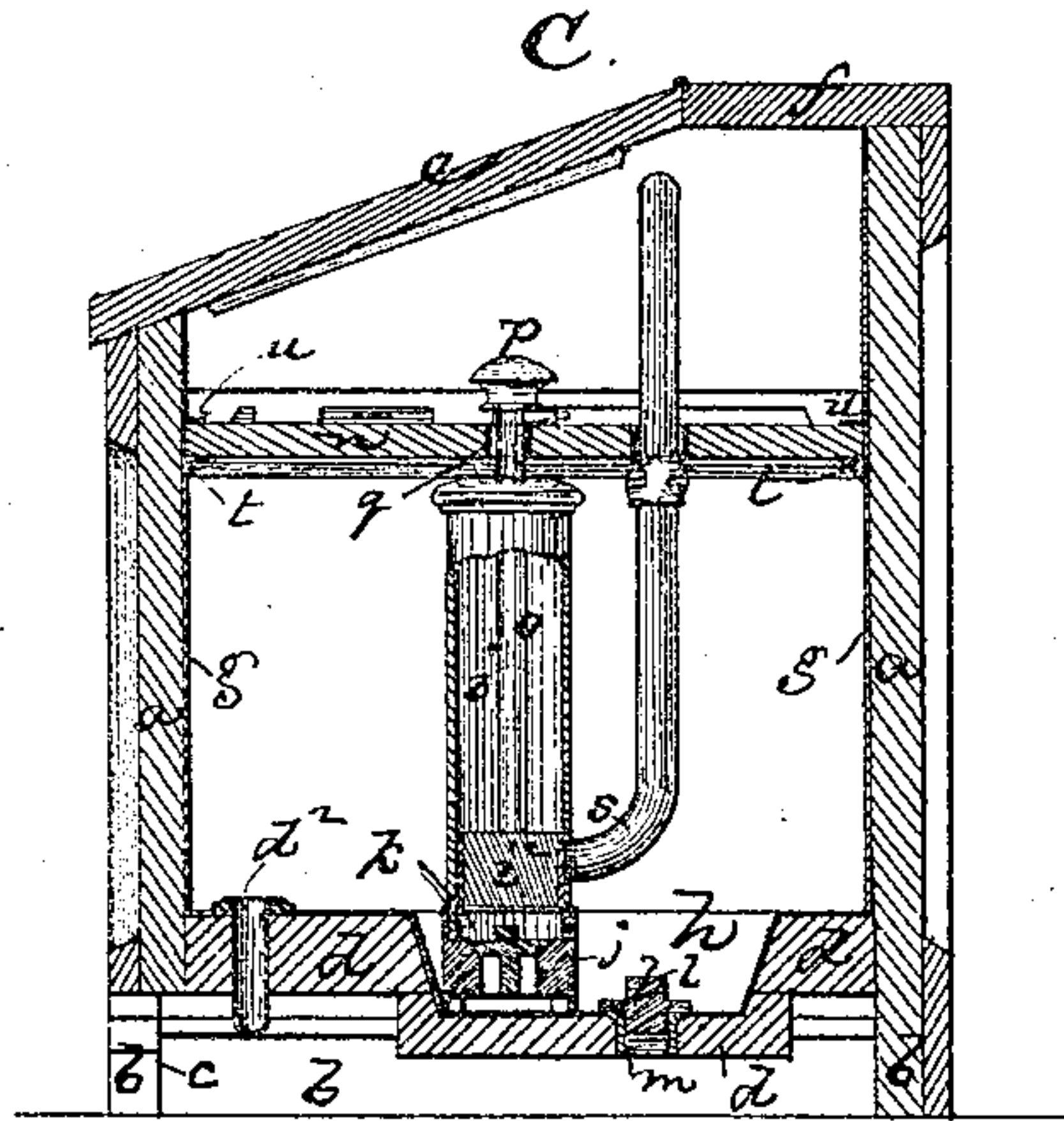


J. SHEA & T. CAMPBELL.

Encased Oil-Tank.

No. 133,123.

Patented Nov. 19, 1872.



Witnesses.
M. W. Frothingham.
S. B. Kidder.

John Shea,
Tristram Campbell,
By their Atty.
Crosby & Gould.

UNITED STATES PATENT OFFICE.

JOHN SHEA AND TRISTRAM CAMPBELL, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN INCASED OIL-TANKS.

Specification forming part of Letters Patent No. 133,123, dated November 19, 1872.

To all whom it may concern:

Be it known that we, JOHN SHEA and TRISTRAM CAMPBELL, both of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Oil Tank or Cabinet; and we do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of our invention sufficient to enable those skilled in the art to practice it.

Our invention relates to details of construction of oil-containing tanks, to be used in warehouses, stores, manufactories, and other places, for holding oil and enabling it to be drawn or pumped off as required for use, the tank being designed with reference both to neatness of appearance and safety, as well as to containing the oil in such manner that it may be readily drawn, and shall not be liable either to leak from the tank or to be thrown or splattered out in drawing it into small vessels.

The drawing represents a tank embodying our improvements. A shows a plan of the interior, or of the tank, the cover being removed. B is a front and sectional elevation. C is a section on the line *x x*.

a denotes a wooden chest made strong and tight-jointed and preferably paneled, said chest having a bottom or sill piece, *b*, extending all around it except at the front and resting directly on the floor, the front being open, as seen at *c*. Above the sills and this front opening is the wood bottom or floor *d* of the chest. The chest is made higher at the rear than at the front, and is provided with a desk-like lid, *e*, opening upward and swinging back and over and resting upon the top piece *f*. The inside of the chest (except the under surface of the lid and top piece) is entirely lined with sheet metal *g*, the corner joints and other joints, if there be others, being made perfectly tight by solder or other suitable cement. At one end of the chest is a well or pit, *h*, made in the floor, into which pit all the oil settles as the tank becomes nearly empty, and into which pit the lower end of the pump-barrel *i* extends, said pump-barrel resting on a box piece or ring, *j*, containing the inlet box or valve *k*, the valve being nearly but not quite down to the bottom of the pit, so that all the oil may be pumped off except such very small quantity

as will be likely to be charged with the dregs and foreign matters, and for drawing this refuse off the pit is provided with a trap-screw or plug, *l*, and outlet-tube *m*. The pump-barrel is united to the box-seat *j* by a screw-threaded connection, and the cap of the barrel is directly under a shelf, *n*, while the piston-rod *o* extends up through the shelf, and is surmounted by a cap, *p*, the piston-rod playing through a ring, *q*, in which it has a snug fit, and the lower end of the rod being screw-threaded and connected by said thread to a nut-thread in the piston. From the lower part of the pump-barrel, just above the lower box or inlet-valve *k*, the outlet-tube *s* extends, said tube rising vertically and having screwed into its upper end, just below the shelf, the decanting tube *s*², which rises vertically, and is bent over at top, so as to discharge downward into any vessel placed beneath its mouth upon the partition. By unscrewing this tube it may be removed from the partition, and by also unscrewing the piston-rod and withdrawing the rod from the pump through the partition the partition is left free to be moved, and may be slid laterally upon the ledges *t* to the opposite end of the tank, at which end it may be lifted out from the tank, it being held in position at its own end of the tank by the ledges *t* and opposite edge or lip pieces *u* so as to be immovable under the action of the pump. When the partition is so removed the pump-barrel may be also unscrewed and removed, both for access to the inlet-valve and for general access to the interior of the tank. Directly under the discharge-mouth of the tube is a fine screen, *v*, in the partition, which screen receives the drippings of oil and permits them to pass through into the tank without spreading over onto the surface of the shelf. At the side of the shelf *n* is another shelf, *w*, covering the opposite end of the tank, said shelf *w* being in the plane of the shelf *n* and resting upon the ledges *t* and being removable from the tank, it being removed prior to the removal of the shelf *n*. Through the shelf *w* passes a filling tube or tunnel, *x*, said tunnel sliding vertically in a sleeve, *y*, and having a flaring top, *z*. By drawing up the tunnel when the tank-lid is raised the top *z* may be brought into any convenient position to

receive the end of the charging-pipe, through which oil is discharged from a cask into the tank to fill the tank. When not in use the tunnel is pressed down until the top rests against the shelf w , and when in this position the shelf is surmounted by a cover, a^2 , which covers the tunnel and locks the shelf down, one edge of the cover projecting under a stop, b^2 , and the other edge being secured to the shelf n by a slide-bolt, c^2 .

It is desirable to have the tank-sills rest directly upon the floor, as it is almost impossible to utterly prevent leakage from such tanks, and if the sills set upon corner feet the strain upon the tank-floor is very liable to open the joints of the tank. We therefore bring the sills to the floor, but, as it is desirable to have the bottom of the tank in such position that it can be at all times freely inspected and drippings removed through the outlet m , we leave an open space, e , at the front of the sills, otherwise extending them to and so as to rest directly upon the floor. Without removing the shelves $n w$, or either of them, it is desirable at all times to be able to ascertain the quantity of oil in the tank, and for this purpose a tube, d^2 , leads from the bottom of the tank to a glass indicator-tube, e^2 , at the front side of the tank, the oil rising in the tube to the same level it has in the tank, and there being at the side of the tube a scale, g^2 , indicating by its figures the contents of the tank at corresponding heights, so that by turning back a door, f^2 , and observing the height of oil in the tube by the scale at its side the height of oil in the tank and the quantity may be always known.

All of these details tend greatly to the safe keeping of the oil in places where the utmost precaution is necessary, and also to facilitate the operations of filling the tank and drawing off the oil therefrom as needed, and of easy access to the tank throughout, for inspection for repairs or for cleaning.

The piston i^2 of the pump-barrel is made

solid and of a considerable depth or body, and is weighted, its periphery being formed of brass or other composition and its body of lead or other heavy metal, by which construction the weight of the piston causes it to descend and insures an even flow of the oil from the decanting-tube s^2 .

We claim—

1. The adjustable tunnel x applied to the shelf n , and within the fixed sleeve therein, as and for the purpose described.

2. The removable shelves $n w$, one having the tunnel x extending through it and the other having the rings for passage of the decanting-tube s^2 and pump-barrel piston-rod o , all substantially as shown and described.

3. In combination with the shelf w and its adjustable tunnel x , the surmounting and locking cover a^2 , substantially as shown and described.

4. In combination with a tank provided with the covers or shelves $n w$, the well or pit h in the bottom of the tank, substantially as and for the purpose set forth.

5. In combination with the well, the trap-screw or plug l , substantially as and for the purpose described.

6. In combination with a tank provided with the shelves or covers $n w$ and the supplying and delivering mechanism, the indicator-tube e^2 and scale g^2 , substantially as shown and described.

7. Also, in combination with the box-seat m^2 forming a fixture at the bottom of the tank, the removable and dismembering pump applied thereto, substantially as described.

8. Also, in combination with the pump-barrel, the solid piston i^2 , constructed and weighted substantially as shown and described.

JOHN SHEA.

TRISTRAM CAMPBELL.

Witnesses:

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