(No Model.)

A. M. TIPPNER.

FASTENING FOR THE COVERS OF ICE CISTERNS.

No. 511,475. Patented Dec. 26, 1893.

Fig. 1.

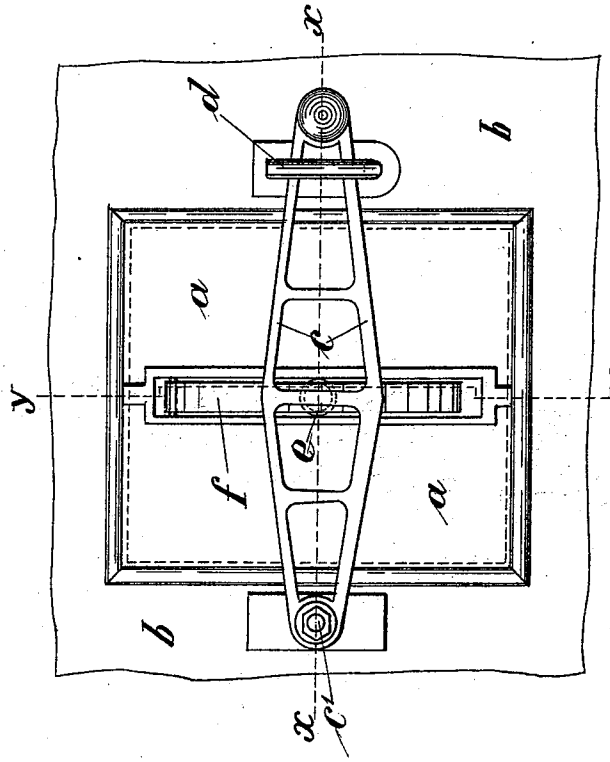


Fig. 3.

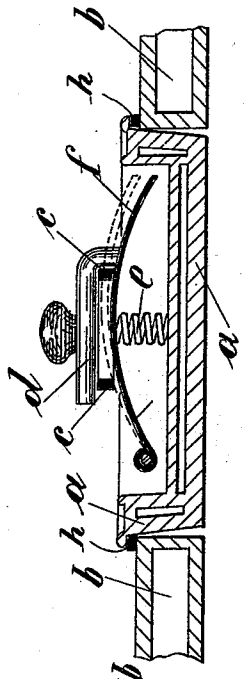
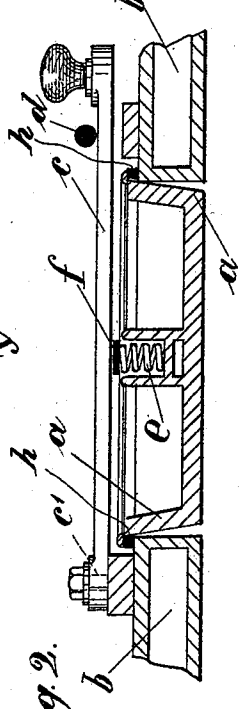


Fig. 2.



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ALEXANDER MAX TIPPNER, OF DRESDEN, GERMANY.

FASTENING FOR THE COVERS OF ICE-CISTERNS.

SPECIFICATION forming part of Letters Patent No. 511,475, dated December 26, 1893.

Application filed February 20, 1893. Serial No. 462,978. (No model.) Patented in Germany June 2, 1892, No. 66,553.

To all whom it may concern:

Be it known that I, ALEXANDER MAX TIPPNER, a subject of the King of Saxony, German Empire, and a resident of Dresden, in the Kingdom of Saxony, German Empire, have invented a certain new and useful Fastening for the Covers of Ice-Cisterns, of which the following is a specification, a patent for the same having been granted to me in Germany on the 2d day of June, 1892, numbered and designated as follows: D. R. P., 66,553, Kl. 34.

In order that ice may be fully utilized for cooling purposes it is imperative that it be kept from contact with the outside air; or at least such contact should be reduced to the lowest possible minimum if the effect required is not to be lost altogether. The fastenings usually employed in cistern covers are defective in this respect, since they only restrict the volume of the air current but do not prevent its coming in contact with the ice.

The object of the present invention is to provide a fastening which will be at once easy of handling and effect a hermetic closing of the cover.

Referring to the drawings which accompany the specification to aid the description, Figure 1 is a plan view of the lock cover. Fig. 2 is a longitudinal section of the fastening, taken on the line *x*—*x* of Fig. 1. Fig. 3 is a cross section of same, on the line *y*—*y* of Fig. 1.

The cistern may be made of any suitable material preferably of sheet iron. The top *b* of the cistern has an opening for receiving the ice which is closed by a cover *a*, as shown, the edges of the opening and the cover each fitting on each other, while the opening in the top of the cistern is quite snugly filled by the downward projecting part of the cover *a*, as shown in Fig. 2. A cross piece or beam *c* which projects at right angles over the cover *a* turns on a bolt *c'* in a horizontal plane and grips in one of its ends. Said bolt *c'*, is fastened on the upper surface of the ice cistern near the feed opening, a cramp *d* being also fastened near same, but on the opposite side, and in which the end of the lever *c* catches, when the same enters in the closing position. A spiral spring *e* is fitted in a socket bored out for the purpose in the middle of the cover *a*. Over this lies a bow-formed rail *f*, which is raised high enough by the spring *e*, when the cover is free, to project sufficiently in the center above the surface of the cover to serve for a handle. The bow-form of this rail *f* forms the course for the beam *c* when same is reciprocated over the cover on opening or closing the latter. The moment the beam *c* comes in contact with the rail *f*, the latter is pressed down, thus gradually compressing the spring *e;* said spring then presses the cover *a* down upon the feed opening. Packing *h*, such as india rubber or the like is placed between the closing surfaces.

I am aware that compressing and retaining devices have already been made with bodies having arched or convex tops, also with lids having an arched top, and that spring fastenings for the same are not new; finally I am aware that a bridge of spring steel is already used to exert sufficient pressure to hold the parts of a cover in place, when engaged. For these reasons I do not claim these devices separately or broadly in combination, but

What I do claim, and desire to secure by Letters Patent, is—

1. In fastenings for covers of ice receptacles, a cross piece or beam turning on a fixed bolt as a pivot, a rail adapted to be compressed thereby, a spring upholding said rail, and a cramp adapted to catch and hold down the beam upon said rail, when the beam is extended over the cover, substantially as described.

2. The combination in ice receptacles, of the top *b*, cover *a* adapted to fit therein and close the opening therein, arm *c* pivoted on said top, cramp *d* fixed on said top *b* and adapted to receive said arm *c* when in one position, spring *e* fixed on said cover, and supporting the course *f* which is adapted to press upward against said pivoted arm *c* and thereby hold the cover *a* tightly in place, substantially as described.

3. The combination in ice receptacles, of a

perforated top, a packing ring adjacent to the perforation, a cover for the perforation and provided with a flange adapted to bear on said packing ring, an arm pivoted on the cover and adapted to pass under a cramp which is fixed on the top of the receptacle, a spring arranged on the aforesaid top and carrying an elastic course on which the aforesaid arm bears when said arm is engaged by said cramp, substantially as described.

In witness whereof I hereunto set my hand in presence of two witnesses.

ALEXANDER MAX TIPPNER.

Witnesses:

OSKAR ZODUR,

HERNANDO DE SOTO.