

(No Model.)

E. S. PHELPS.
COVER FOR BARRELS, &c.

No. 476,407.

Patented June 7, 1892.

Fig. 1.

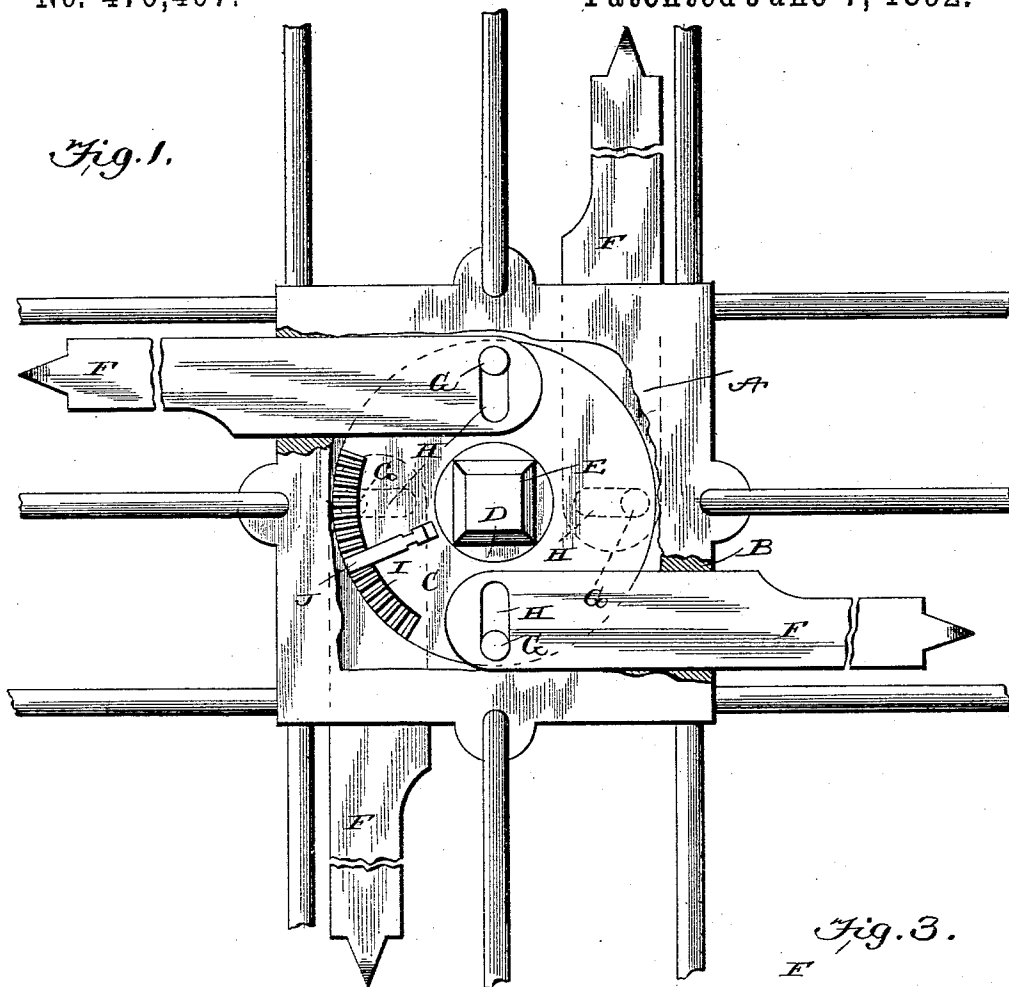


Fig. 2

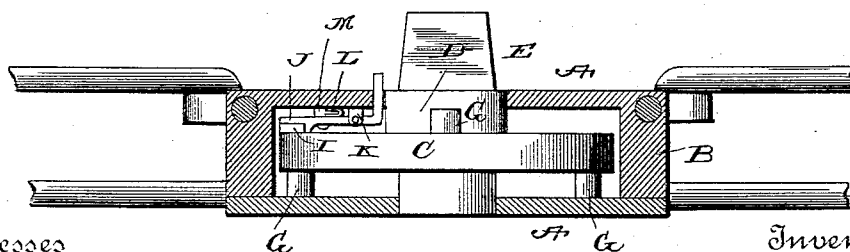
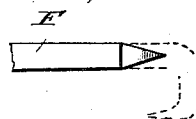


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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COVER FOR BARRELS, &c.

SPECIFICATION forming part of Letters Patent No. 476,407, dated June 7, 1892.

Application filed February 20, 1892. Serial No. 422,274. (No model.)

To all whom it may concern:

Be it known that I, EDWIN SANFORD PHELPS, a citizen of the United States, residing at Leavenworth, in the county of Leavenworth and State of Kansas, have invented certain new and useful Improvements in Covers for Barrels and other Vessels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to covers for barrels, tubs, and other vessels in which the contents may be displayed or exhibited without liability of being pilfered or in which it is desired to confine the contents against movement during transportation or at other times; and it has for its object to provide simple and efficient means for locking the cover in place which shall be capable of easy manipulation and which may be adjusted to vessels of different diameters and which cannot be operated except by those entitled to operate them.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the construction and the combination of parts hereinafter particularly described, and then sought to be specifically defined by the claims.

Figure 1 is a plan view of the device, showing the upper plate broken away. Fig. 2 is a side view with the casing in section and the fingers or bars omitted. Fig. 3 is a detail view of the reciprocating finger, with a hooked end shown in dotted lines.

In carrying out my invention I make use of a frame-work, which may be of any suitable construction, but which I prefer to construct, as illustrated in the drawings, of upper and lower plates or bars A, connected together at their outer edges by side webs or bars B, which form a frame-work that is hollow, whereby it is adapted to receive a revoluble plate or disk C, which is keyed or otherwise secured to a central stem D, projecting above and below said plate or disk and turning in openings made in the upper and the lower plates or bars A, the stem being provided with a key E, angular in cross-section and prefer-

ably projecting above the upper bars or plates A, so that a crank or other lever may be applied thereto for the purpose of turning the revoluble disk or plate C. Projecting laterally from this frame-work is a series of pointed fingers or bars F, which are capable of sliding in and out through openings made in the webs or side bars B therefor. Any desired number of these fingers or bars may be employed; but I have illustrated only four, as that number is sufficient for the purpose. It is preferred to locate these fingers or bars so that they will lie against the web or side bar which extends at right angles to the web or bar through which the finger reciprocates, so that an additional guide and brace for the reciprocating finger may be afforded by the side bar or web against which it bears. It is also preferred to locate these reciprocating fingers or bars so that some of them will lie above the revoluble disk or plate C and the others will lie below the same, as illustrated in the drawings, whereby movement of all the fingers is provided for without interference of one with the other. These fingers are connected with the revoluble plate or disk by means of studs or pins G, extending from the disk or plate and entering slots H, made in the fingers, so that as the disk or plate is turned the fingers are moved in or out, according as the plate may be turned in one direction or the other. The slots in the fingers permit the circular movement of the plate or disk and longitudinal movement of the fingers without binding of the parts. By the construction described the revoluble plate or disk is held in place and the fingers are braced, so that the whole structure is rendered strong and the parts made easy of manipulation and at the same time protected from injury.

The frame-work which contains the operating parts already described has secured to it a grating or net-work in any suitable manner and of sufficient dimension to cover the space from the frame-work to the side of the barrel or vessel. The particular manner of securing the strands or wires of the grating or net-work which I have illustrated in the drawings consists in passing some of the wires through openings or perforations made in the side bars of the described frame-work, as illus-

trated in the drawings, while other strands or wires are connected to perforated ears extending from the sides of the frame-work, as illustrated. This affords an easy and strong manner of connecting the frame-work and netting or grating together, and, while the same is preferred, I wish it to be distinctly understood that I do not confine myself to that manner of securing the parts together.

The cover constructed as described is placed inside the vessel, with the reciprocating fingers drawn inwardly, and a lever is then applied to the key of the revoluble disk and the same turned, so as to force the fingers outwardly and into the sides of the vessel, whereby the cover is locked securely in place and cannot be removed without turning the disk in the other direction to move the fingers from their locking engagement with the sides of the vessel. The contents of the vessel, however, can be inspected through the grating. This allows the exhibition of the contents of the vessel without the possibility of pilfering or unlawful abstraction of anything that may be contained in the vessel.

It is obvious that instead of using a netting or grating that portion of the cover may be solid and the locking means still be employed. It is also obvious that, if desired, the outer ends of the reciprocating bars or fingers, instead of being formed so as to force the same against the inside of the vessel, may be hooked so that the hooks may extend over the edge of the vessel in order that they may engage the outside of the vessel. When such is the case, it is evident that instead of forcing the fingers outwardly to engage the sides of the vessel they will be drawn inwardly to engage the vessel, the connection of the fingers to the revoluble disk being the same as already described and the operation substantially the same, the only difference being that the disk will be turned in an opposite direction to that in which it is turned when the fingers are to be projected outwardly.

If desired, only two of the reciprocating fingers may be employed for securing the cover to the vessel, and they may be either above or below the revoluble disk, as may be most desirable. The hooked ends of the fingers are represented by dotted lines in the drawings, as shown in Fig. 3.

It will be observed that all the fingers employed are moved simultaneously by the simple turning of the revoluble disk or plate.

I propose using some locking device that will hold the parts in their locked position. A form suitable for the purpose is illustrated in the drawings, and consists in forming notches or teeth I in the revoluble disk or plate C, which will engage with a pawl J, pivoted to the ears K and having its outer end extended above the casing A and in proximity to the key E, so that when the wrench or operating-handle is applied to that key it will depress the outer end of said pawl and raise its inner end from engagement with the ratchet-teeth on the disk C, and thus allow the latter to be turned to move the locking-fingers. At other times the pawl, being in engagement with the ratchet-teeth of the disk, will prevent the latter from turning, and thus hold the parts locked in their fastening position. A spring L may be employed to press down the inner end of the pawl and hold it in engagement with the ratchet-teeth of the disk, and, if desired, ears or lugs M may be employed to guide and brace the pawl against lateral movement.

The foregoing is one form of device for locking the parts; but I do not limit myself to such form.

I have described with a particularity the details of construction of the several parts of the device; but it is obvious that changes in such details can be made and the essential features of my invention still be employed, and therefore, while I have given a detail description, I am not to be understood as confining myself thereto when the essentials of the invention I employ exists under a different construction in details of the several parts.

Having described my invention and set forth its merits, what I claim is—

1. In a cover for barrels or other vessels, the combination, with the revoluble operating disk or plate, of the series of fingers connected with said plate and arranged some above and others below the plate, whereby they may be arranged close together and move across the path of travel of each other without interference one with the other, substantially as and for the purposes described.

2. In a cover for barrels or other vessels, the combination, with the revoluble operating plate or disk provided with studs or pins projecting from opposite faces thereof, of reciprocating fingers located above and below said frame, formed with elongated openings extending transversely to their length, into which said studs or pins enter, substantially as and for the purposes described.

3. In a cover for barrels or other vessels, the combination, with the frame formed with openings in its sides for the passage of reciprocating fingers, of reciprocable fingers inclosed in said frame and passing through said openings and located next to the side walls of the frame and a revoluble operating disk or plate located between the top and bottom of the frame, connected with said fingers for reciprocating the same, substantially as and for the purposes described.

4. In a cover for barrels or other vessels, the combination, with the frame having a revoluble disk or plate inclosed therein between its top and bottom and side walls, of reciprocable fingers moving in said frame and connected with said plate or disk, substantially as and for the purposes described.

5. In a cover for barrels or other vessels, the combination, with the frame and its reciprocable fingers, of the wires or strands passed through and secured within openings

formed in parts of said frame and extending radially from the frame, substantially as and for the purposes described.

6. In a cover for barrels or other vessels,
5 the combination, with the reciprocating fingers and means for operating the same, of a locking device having one part of it next to said operating means to engage with it and another part adjacent to a key that receives
10 an operating-lever, whereby it may be re-

leased from locking engagement by the lever that actuates the operating means, substantially as and for the purposes described.

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

EDWIN SANFORD PHELPS.

Witnesses:

ANDREW GEORGE RUDER,
HARRY MILTON PHELPS.