(No Model.)

E. SCHANDEIN.

BOX FASTENER.

No. 362,920. Patented May 10, 1887.

Fig. 1

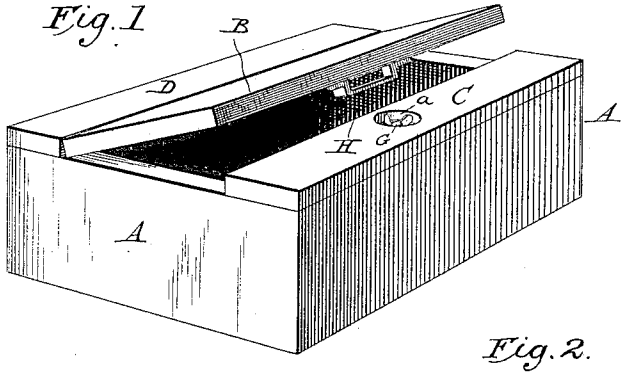


Fig. 2.

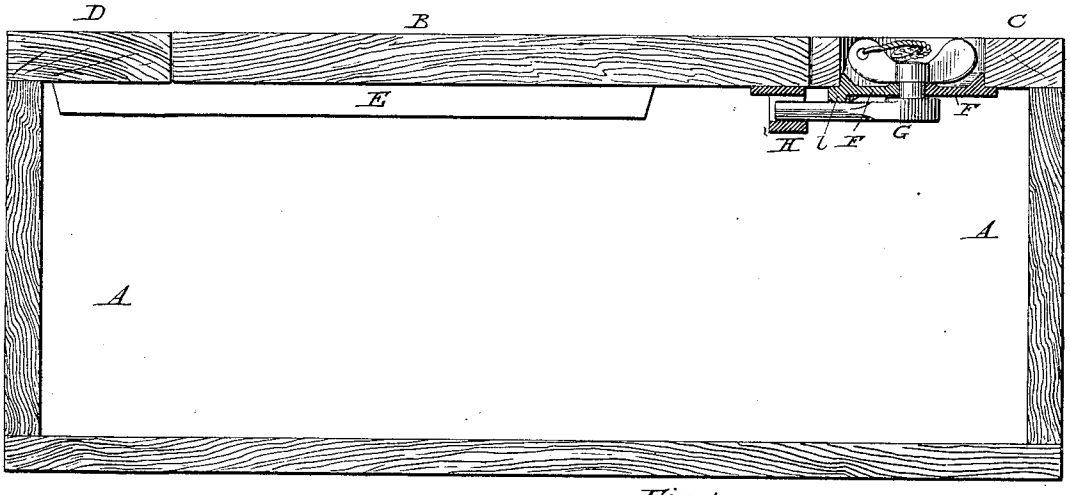


Fig. 3.

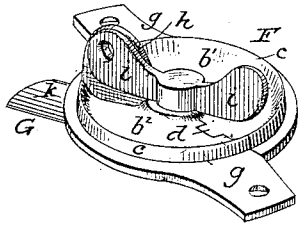


Fig. 4.

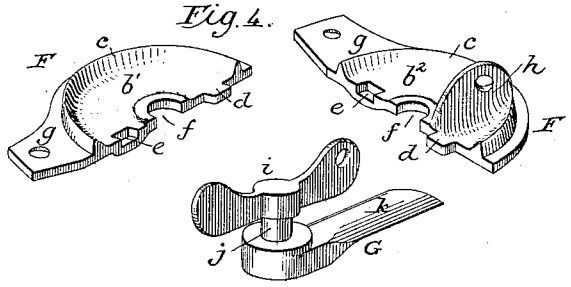


Fig. 5.

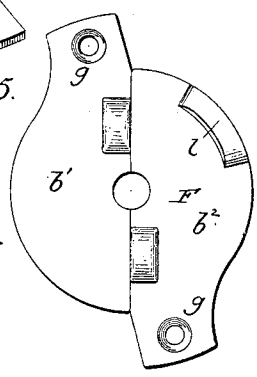
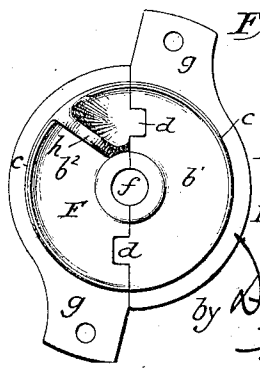


Fig. 6.



Attest

Sidney P. Mollingsworth

Walter T. Dodge.

Inventor:

Emil Schandein

by Dodger Chr

his Attys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

EMIL SCHANDEIN, OF MILWAUKEE, WISCONSIN.

BOX-FASTENER.

SPECIFICATION forming part of Letters Patent No. 362,920, dated May 10, 1887.

Application filed December 20, 1886. Serial No. 222,098. (No model.)

To all whom it may concern:

Be it known that I, EMIL SCHANDEIN, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Box-Fasteners, of which the following is a specification.

My invention relates to fastenings for packing boxes or cases; and the invention consists in the novel construction and arrangement of parts, as hereinafter more fully described.

Referring to the drawings, Figure 1 is a perspective view of a box or packing-case—such as is usually used for the transportation of bottles—provided with my improved fastener; Fig. 2, a vertical transverse sectional view of the same; Fig. 3, a perspective view of the fastener detached from the box; Fig. 4, a perspective view of the same showing the parts separated; and Figs. 5 and 6, respectively, bottom and top plan views with the latch or bolt removed.

A indicates a box, which may be of any desired construction, that shown in the drawings representing an ordinary bottle-case. This box is provided with a cover, B, and strips C D, as shown in Figs. 1 and 2, the cover being provided on its under side with cleats E, to engage under the strip D, as is customary in this class of packing-cases.

As the construction of the box forms no part of the present invention, it need not be further described.

In the strip C is bored a hole or socket, *a*, open at top and bottom, and to the under side of the strip, over the socket or hole, I apply my improved fastener, which comprises a plate, F, and a latch or bolt, G, the latter engaging the cover B, or a keeper, H, thereon. The plate F is composed of two parts, b' and b^2, which in most particulars resemble each other—that is to say, each is provided with a raised rim or flange, *c*, on its upper face, a lug, *d*, socket *e*, and semicircular seat *f* on its edge, a lateral flange, *g*, and one of the parts, b^2, is provided with a perforated upright stop, *h*, all as shown in Figs. 4 and 6.

The parts b' b^2 are so constructed that when their straight faces are placed together, as shown in Figs. 3, 5, and 6, the lug *d* on each part will fit into the socket *e* in the other, and the two semicircular bearings or sockets *f* form a circular seat or bearing for the latch or bolt. It will also be noticed that the raised rim or flange *c* is thus made continuous, and is inserted into the lower end or mouth of the socket, as shown in Fig. 2. When thus inserted, the flanges *g* rest flat against the under side of the box A or strip C, and are perforated to permit screws to be passed through them for the purpose of securely attaching the plate to the box.

Before the plates are attached to the box it will be necessary to place the latch or bolt, which will preferably be made in one piece, in its socket or bearing formed by the semicircular sockets *f f* in the adjacent edges of the plate-sections. The latch or bolt comprises a thumb-piece, *i*, a cylindrical stem, *j*, to fit the socket or bearing *f f*, and an arm, *k*, at right angles to the upright stem or journal *j*, to engage the cover or its keeper, as shown in Fig. 4.

It will be noticed that the stem *j* is reduced in diameter where it rests in the socket or bearing *f f*, so that when the two parts b' b^2 of plate F are brought close up to and made to encircle the stem *j* the latter is held securely in place. The stop *h* is so set relatively to the latch that when the arm *k* of the latter is thrown outward to lock the cover B the thumb-piece *i* will come into contact with the stop *h*, and thereby limit the movement of the latter. The thumb-piece *i* and stop *h* are both perforated, as shown, and when the box is ready to be shipped they are wired together, as shown, and a seal applied to the ends of the wire, the wire and seal being then bent downward into the socket, so as to be out of the way when the boxes are piled upon one another. It will be noticed that the thumb-piece *i* and the stop *h* do not project up above the top of the box, so that a label or address-card may be placed or applied over the socket as a further guard or means of detection.

Instead of perforating the parts *h i*, they may be simply tied together by a wire (or string, if desired) passing about them, and the seal, whether of lead, wax, or other suitable material, usually containing the shipper's name, be applied thereto.

Upon the under side of one of the parts, b^2, of the plate F is an inclined lug, *l*, upon which the arm *k* of bolt G rides when the bolt-arm

is thrown outward to engage the cover, the lug serving to throw the outer end of the arm *k* downward, and thereby lock the cover more securely, besides relieving the plates and bolt-arm of undue strain.

A keeper, H, for the latch *k* to engage in, is secured to the under side of the cover B, as shown in Figs. 1 and 2; but this may be dispensed with by securing a cleat to the under side of the cover at the proper point and cutting a recess in it for the latch to engage in.

Instead of the strips or cleats E to hold the rear edge of the cover, hinges may be used, if desired; but by using the cleats the cover can be detached and laid aside out of the way.

From the foregoing it will be seen that my fastener is easily constructed and applied, only two screws being necessary to secure not only the plate to the box, but at the same time secure the bolt or latch to the plate, thus avoiding the necessity of riveting the latch or bolt to the latter. This is a feature of considerable importance, because in the one operation the latch or bolt is secured to the plate and the latter to the box. Should one part, *b'* or b^2, of the plate become broken, it can at any time be easily and cheaply replaced, thus obviating the necessity for replacing the entire plate F, confining the break to a cheap and inexpensive part of the fixture.

Instead of the raised rim *c*, the parts *b'* and b^2 may have a series of projections to fit in the mouth of the hole, or they may have points cast on them to be forced or driven into the under face of strip C, to aid in holding them in position; but I prefer to make them as shown; and I would also have it understood that in some cases the lugs *f* and sockets *e* may be omitted.

I am aware that a knob-rosette has been made in two parts, one recessed to receive the other, and I make no broad claim to such construction. In some cases the stop *h* may be omitted or made separate, in which case it will be seen that the two parts *b' b²*, forming the plate F, would be duplicates of each other, and hence a single pattern would serve for both in casting. This is a feature of importance, as it lessens the cost of manufacture considerably.

Having thus described my invention, what I claim is—

1. In combination with a box provided with a socket, *a*, a plate, F, secured thereto, comprising two parts, *b'* and b^2, and a latch or bolt journaled in the plate, substantially as shown and described.

2. In combination with a box provided with a socket, *a*, a plate, F, covering the bottom of the socket and provided with a rim or flange, *c*, to fit within the same, and a bolt or latch, G, carried by said plate.

3. The plate F, comprising the parts *b'* and b^2, provided with lug *d* and socket *e* in their adjacent edges, in combination with a bolt or latch.

4. The plate F, comprising the parts *b'* and b^2, provided with a raised rim, *c*, in combination with a latch or bolt journaled in the plate.

5. In combination with a latch or bolt, the plate F, comprising the parts *b'* and b^2, each provided with lug *d*, sockets *e f*, raised rim *c*, and flange *g*, all substantially as shown and described.

6. In combination with plate F, provided on its under side with inclined lug *l*, bolt or latch G, journaled in the plate and provided with an arm, *k*, adapted to ride over or upon the lug, as and for the purpose set forth.

7. In combination with two-part plate F, a bolt, G, journaled therein and provided with a stem, *j*, enlarged in diameter above and below the plate, substantially as shown.

8. In combination with box A, having a socket, *a*, therein, a plate, F, covering the bottom of the socket and provided with an upwardly-projecting stop, *h*, within the socket, a latch or bolt, G, journaled in the plate and provided on the upper side of the latter within the socket with a thumb-piece, *i*, a wire or band connecting piece *i* and stop *h*, a seal applied to the wire or band, and an address-card or label applied over the socket.

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

EMIL SCHANDEIN.

Witnesses:
A. A. L. SMITH,
C. H. VAN ALSTINE.