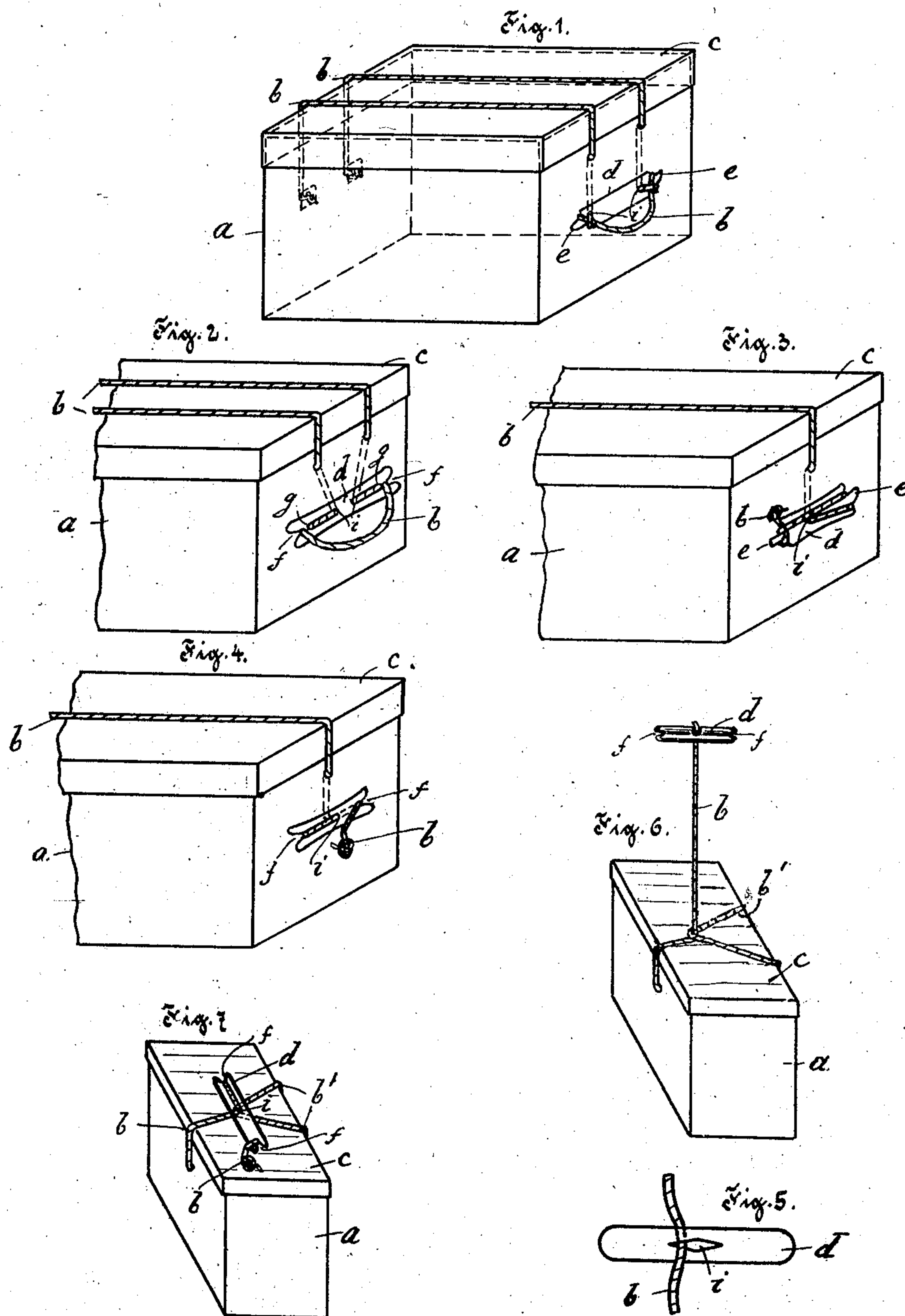


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E. P. LEHMANN.
PACKING BOX.
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Witnesses:
E. O. Nilsen
H. F. Anderson

Inventor:
Ernst Paul Lehmann
by Georgii Massie
Attorney

UNITED STATES PATENT OFFICE.

ERNST PAUL LEHMANN, OF BRANDENBURG-ON-THE-HAVEL, GERMANY.

PACKING-BOX.

No. 891,554.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ERNST PAUL LEHMANN, a subject to the King of Prussia, residing at No. 6 Plauerstrasse, Brandenburg-on-the-Havel, in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Packing-Boxes; and I do hereby 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.

My invention relates to improvements in and connected with packing-boxes of that class in which the cover of the box is held down to the box, for closing the same, by a string or strings permanently secured to the body of the box, a handle being secured to one or more of said strings for conveniently carrying the box.

The object of my present invention is to provide improved means for locking the handle closely to the side or to the cover of the box to prevent the string or strings, which hold the said cover down to the body of the box from becoming slack and from losing their hold upon the cover.

In the accompanying drawings I have illustrated my invention by showing various modifications of the same.

Figure 1 is a perspective view having its cover closed and held down to the body of the box by a double string and a self-locking handle connected to the projecting ends of the string. Fig. 2 is a perspective view of a portion of a box with its cover closed and held down to the body of the box by a double string connected to a self-locking handle constructed according to another modification of this invention; Fig. 3 is a perspective view of a portion of a packing box with its cover held down to the body of the box by a single string connected to a self-locking handle of the kind represented by Fig. 1; Fig. 4 is a perspective view of a portion of a packing box with its cover held down to the body of the box by a single string connected to a self-locking handle of the kind represented in Fig. 2; Fig. 5 shows a further modification of the self-locking handle with a portion of a string passing through it and locked against sliding upon the string. Fig. 6 is a perspective view of a portion of a packing box provided with strings permanently secured to it

to hold the cover down to the body of the box and a handle connected to one of said strings, the said handle and strings being shown in a position as when the box is being carried by the handle; Fig. 7 is a perspective view of a portion of a packing box, as represented by Fig. 6, with the handle locked to secure the strings to the cover of the box.

Referring to Fig. 1 of the drawings, *a*, is the body of the packing box, and *b*, is a string or strings permanently secured to one side of said box *a*, from which the strands pass across the cover *c*, to the opposite side of the box which is provided with holes through which the said strands pass to the inside of the box and with other holes, through which they pass to the outside again. The free ends of the said string *b* or its bight, are connected to a handle *d*, arranged to slide upon the said string *b*. When the strands are tight and the box *a*, is carried by the handle *d*, the cover *c*, will be securely held down to the body of the box, but when the box is not being carried by the handle, the said strings *b*, are ordinarily liable to become slack and the cover, then, may become loose. To prevent this, the said handle is constructed to slide upon the string and to be engaged by the said string in a suitable manner for locking the strands against sliding back into the box.

The handle *d*, is provided with holes *i*, through which the strands of the string *b*, projecting from the side of the box, are passed and prevented from sliding back by a knot or a cross-pin or other suitable means connected to the free ends of said string *b*, or by connecting the free ends of said strings to each other, or by forming a bight in an integral string.

When the strings *b*, have been drawn tight to close and hold the cover *c*, down to the body of the box *a*, the handle *d*, is shifted upon the strings *b*, back against the side of the box *a*, whereupon the said handle is so engaged by the said strings as to prevent sliding, and by this means the handle will also lock the strings from sliding back into the box and becoming slack.

According to the embodiment shown in Fig. 1, the means for engaging the handle to the strings *b*, consist in forming upon the handle *d*, projecting fingers *e*, or similar pro-

jecting lugs, adapted to be engaged by loops formed by the strings *b*. When the handle *d*, has been shifted back against the body of the box *a*, the strings *b*, are wound around the fingers *e*, of the handle, and the loops tightly drawn around the said fingers *e*, will prevent the handle *d*, from being shifted, and, consequently, the strings *b*, from being drawn back into the box. Instead of forming said fingers *e*, on the ends of the handle *d*, they may be formed on any other portion of the same. The loops engaging the fingers *e*, of the handle *d*, may as easily be released again, upon which the handle may be shifted again to the free ends of the strings *b*, and the said strings *b*, may be drawn back into the box for a portion of their length, to set the cover *c*, free for being lifted or removed.

The modification represented by Fig. 2, consists in providing the handle *d*, with notches *f*, instead of with fingers or projecting lugs *e*. The strings *b*, are clamped within the said notches, when desired to be locked, thereby preventing the handle *d*, from sliding upon the strings *b*. To provide an increased frictional resistance to the handle, I prefer to pass each end of the strings *b*, through two holes *g*, and *i*, of the handle, as shown, but a single hole *i*, as in Fig. 1, will be found sufficient in most cases.

In the modification shown by Fig. 3, the handle *d*, is constructed essentially as shown in Fig. 1, but connected to a single string *b*, provided for tightening the cover *c*, to the body *a*, of the box. In this case, the said string *b*, may preferably pass through a central hole *i*, of the handle, and be made to engage one or both of the fingers *e*, by looping it around the same.

In Fig. 4 a box *a*, with a single tightening string *b*, is shown, and the handle *d*, having end notches *f*, has a central hole *i*, to slide upon the string, which, being clamped into one or both of said notches *f*, will be prevented from sliding. The said notches *f*, instead of being provided in the ends of the handle *d*, may be arranged at any other portion of the same. Fig. 5 represents a handle having a central aperture *i*, to receive the string *b*, and the notches *f*, are formed in the sides of said aperture *i*, for clamping the string *b*, into one or the other of said notches. A single notch will be sufficient for the purpose.

In the several embodiments described with reference to Figs. 1 to 5, the string or strings *b*, being secured to one side of the box, pass across the cover and enter through the opposite side of the box into the body of the same, from which the free end or ends pass out again to be connected to the locking handle *d*. The said locking handle *d*, however, may as well be employed with a string or strings holding the cover *c*, of the box *a*, in a different manner. A modification of this kind is

shown in Figs. 6, and 7, the former showing the box as carried by the handle *d*, and the latter figure illustrating the handle *d*, locked to the top of the cover, for preventing the strings from becoming slack. In this case a loop *b'*, is secured to one side of the box, and a string *b*, to the opposite side of the same; the said string *b*, passes through the bight of the loop *b'*, and the handle *d*, is secured to the string *b*. On carrying the box *a*, by the handle, the loop *b'* will be drawn by the string *b* to hold the cover *c*, down to the body of the box. To lock the loop *b'*, and string *b*, down to the cover *c*, for preventing its being lifted accidentally, the handle *d*, is shifted down on the string *b*, and the said string *b*, is secured to the said handle by clamping it into one or more notches, or by looping it around one or more fingers or lugs, as has been fully described before.

I claim as my invention:

1. The combination, with a box and a removable cover therefor, of a string permanently secured to the box and arranged to hold the cover down to the body of the box, and a handle arranged to slide on said string between the box and the string extremity, said handle constructed to be locked with the string whereby the cover is held to the box.

2. The combination, with a box, a removable cover therefor, and a string permanently secured to one side of the box threaded through a hole in the opposite side of the box and extending outside said side, said string being arranged to pass over the cover, of a handle attached to that portion of the string extending outside the end of the box and slidable thereon towards and from the extremity thereof, said handle provided with means arranged to engage the string, whereby the cover is held to the box when the handle is not in use for carrying.

3. The combination, with a box, a removable cover provided with flanged edges arranged to engage the box, and a string secured to one side of the box, arranged to pass over the top of the cover threaded through a hole in the opposite side of the box and extending beyond said side, of a handle provided with a transverse opening through which passes said extended portion of the string, said handle being provided with means arranged to be engaged by the string whereby the cover is locked to the box when the handle is not in use for carrying.

4. The combination, with a box, a removable cover provided with flanged edges arranged to engage the box, and a doubled string having both ends permanently secured to one side of the box, the two strands of the string passing into the box and then outward again through holes in the opposite side of the box and forming a bight on the outside of said end, said strands of the string being arranged to pass over the cover of the

box, of a handle provided with holes through
which pass the two strands of the bight, said
handle slidable between the box and the ex-
tremity of the bight and having means for
5 holding the string in its tightened position,
whereby the cover is held to the box both
when being carried and when at rest.

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

ERNST PAUL LEHMANN.

Witnesses.

WOLDEMAR HAUPT,
HENRY HASPER.