

(No Model.)

J. COOK.

DEVICE FOR CLOSING THE LIDS OF BOXES.

No. 374,584.

Patented Dec. 13, 1887.

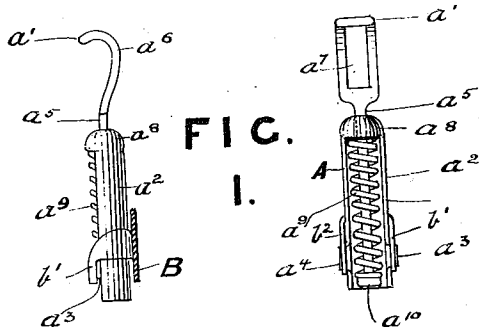


FIG. 1.

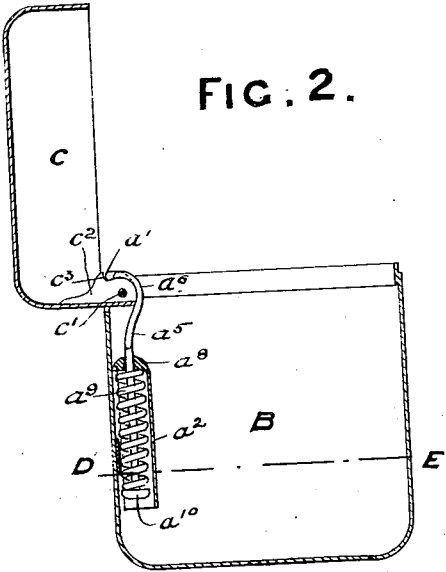


FIG. 2.

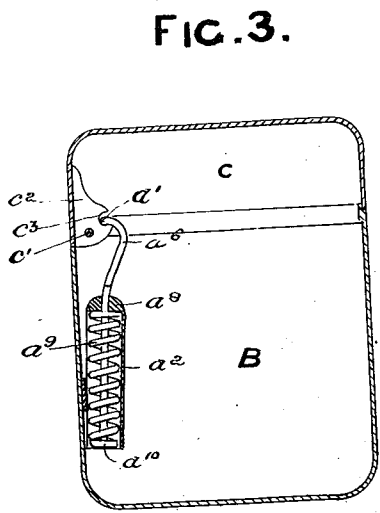


FIG. 3.

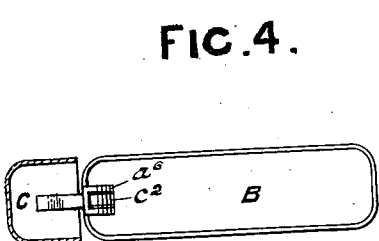


FIG. 4.

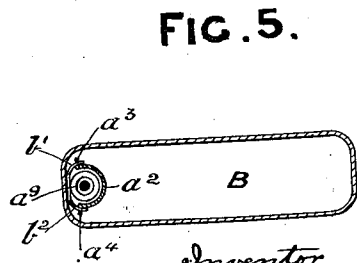


FIG. 5.

Witnesses.
James J. Sheehy
W. P. Williams

Inventor
Joseph Cook,
 by *Wm H Babcock,*
 Attorney.

UNITED STATES PATENT OFFICE.

JOSEPH COOK, OF BIRMINGHAM, COUNTY OF WARWICK, ENGLAND.

DEVICE FOR CLOSING THE LIDS OF BOXES.

SPECIFICATION forming part of Letters Patent No. 374,584, dated December 13, 1887.

Application filed July 11, 1887. Serial No. 244,039. (No model.) Patented in England May 4, 1887, No. 6,559.

To all whom it may concern:

Be it known that I, JOSEPH COOK, of Birmingham, in the county of Warwick, England, manufacturer, and a subject of the Queen of Great Britain, have invented a certain new and useful Improved Device for Closing the Lids of Boxes and other Such Like Articles, (patented in Great Britain May 4, 1887, No. 6,559;) and I do hereby declare that the following is a sufficient description of the invention to enable those skilled in the art to which it appertains to carry the same into practical effect.

This invention has for its object an improved device for closing the lids of boxes and other such like articles, by which great strength and compactness are combined with remarkable efficiency and simplicity in construction.

The invention is specially applicable to such small articles as pocket match-boxes, and I will therefore explain it as applied thereto.

I construct the lid of the box so as to have either in combination with the hinge or separately a block of metal formed like a blunt hook, and so secured thereto as to hang over the inner edge of the box when closed; but when open it stands either in a line therewith or slightly outside the line. Inside the body of the box I mount a tube or case containing a spiral spring, through which a rod passes, having a stop or piston at the bottom, so that the spring is incased between the piston or stop and an inner ledge at the top of the tube or case. This rod continues upward and finishes with a hook, either slotted or solid, which is cranked to pass over the rounded nose of the lid, so that when the lid is opened the cranked part of the nose of the rod thereof still retains its hold upon the nose upon the lid. The action is peculiar, for while the lid is held firmly and steadily open immediately it commences to close, the leverage upon the nose increases as it travels, and the lid is closed with a powerful pull and so held. This device takes but little room inside, and is certain and lasting in its action.

In order that my invention may be clearly understood and more easily carried into practice, I have appended hereunto a sheet of drawings, showing the invention applied to a match-box, which will make the principle

sufficiently clear to enable others to extend its application to other similar articles.

Figure 1 shows a side and front elevation of the principal portion of the device A separate from the box. Fig. 2 shows the device A placed in position in the box B, with the lid C open. Fig. 3 shows the device A in its position in the box B, but with the lid C closed. Fig. 4 is a plan of the device as seen at Fig. 2, but with a portion of the lid C broken off, so as not to impede the view. Fig. 5 is a section on line D E, showing the mode of attaching the device A to the box B.

It will be seen that the lid C is hinged to the box B at c' by the block of metal c^2 , which is formed with the hollow or recess c^3 , in which the point a' of the hook works. This block c^2 is soldered or otherwise fastened inside the lid, or formed in any convenient manner strongly as a part of the lid. The device A consists of a part casing or tube, a^1 , with the horns a^2 and a^4 , which go behind corresponding projections, b^1 and b^2 , which are a part of or soldered or fastened to the inside of the box B; or the tube or casing A may be simply soldered to the box B; but I prefer the former, because the device may be manufactured separately, and added to or removed from the box at any time. The point a' of the hook is united to the stem or rod a^5 through the bent sides a^6 , which leaves the hollow or hole a^7 , in which the block c^2 works. The casing A has a solid or fast top end, a^8 , against which the spring a^9 abuts, and the rod a^5 passes through the end a^8 loosely and through the spring, and finishes at the bottom with an enlargement, a^{10} . The action is as follows: When the lid A is open, the point a' of the hook a^6 bears in the hollow or recess c^3 or the block c^2 at a point slightly to the left of pivot c' , or in such a position as to tend to hold the lid open. Now, immediately the lid is pressed over by the fingers in the direction of closing, the hollow c^3 moves around the center c' until it is brought to the right-hand side of the pivot c' , when the fall of the spring a^9 tends to close it, and the full strength of the spring is exerted at the longest leverage, when the box is quite closed, as seen at Fig. 3. By this means the tendency for the lid to gape open a little is avoided.

What I claim, then, is—
 In combination with the box B and pivoted
 lid C, a block, c', fixed on said cover at its piv-
 otal point and provided with a recess, c', a
 5 spring attached to said box, and a hook which
 is retracted by said spring and engages the
 nose formed by said recess, substantially as set
 forth.

In testimony that I claim the foregoing as
 my own I affix my name in the presence of two
 witnesses.

JOSEPH COOK.

Witnesses:
 ARTHUR MOUSLEY,
 GEORGE PRICE.