

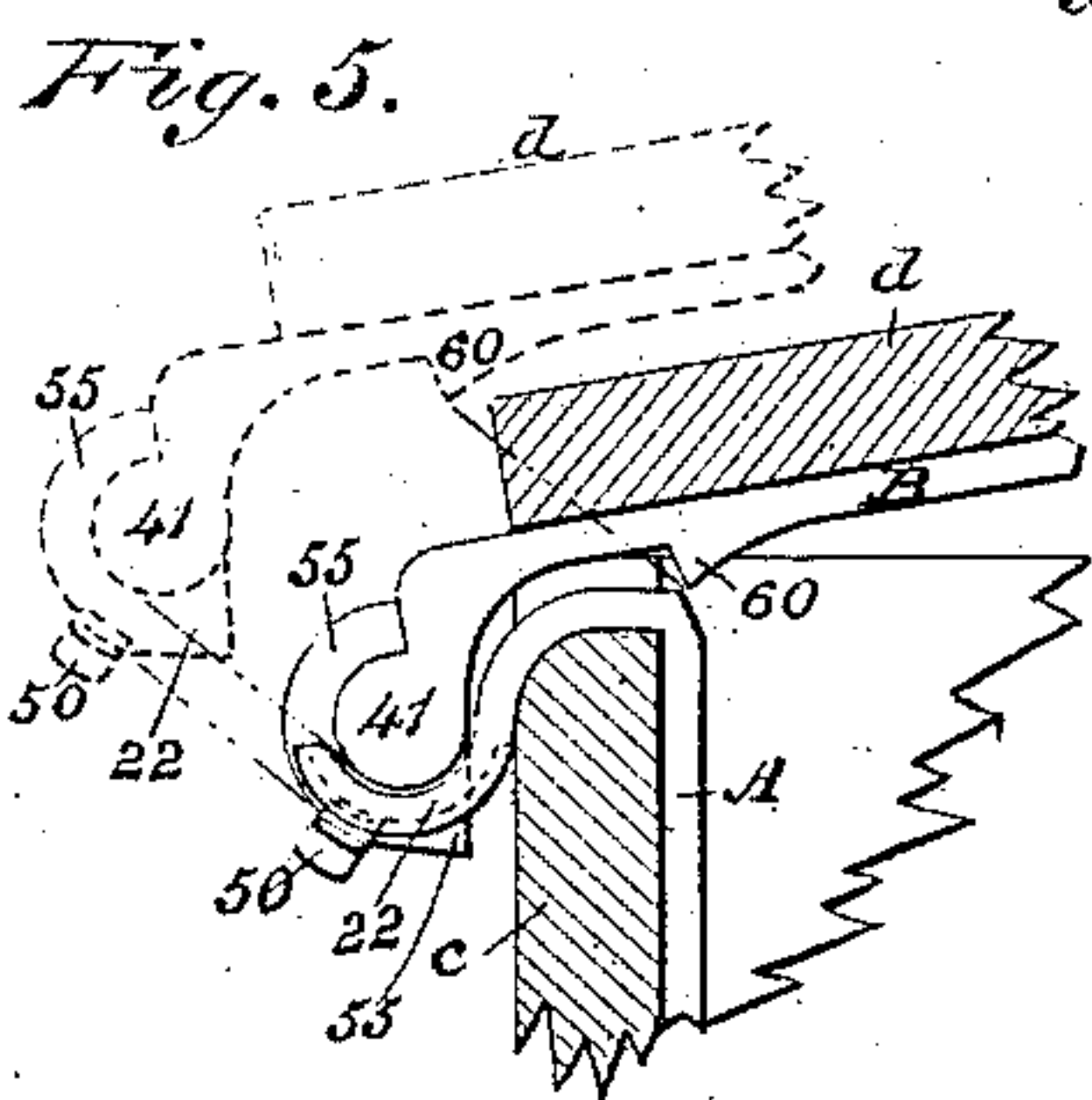
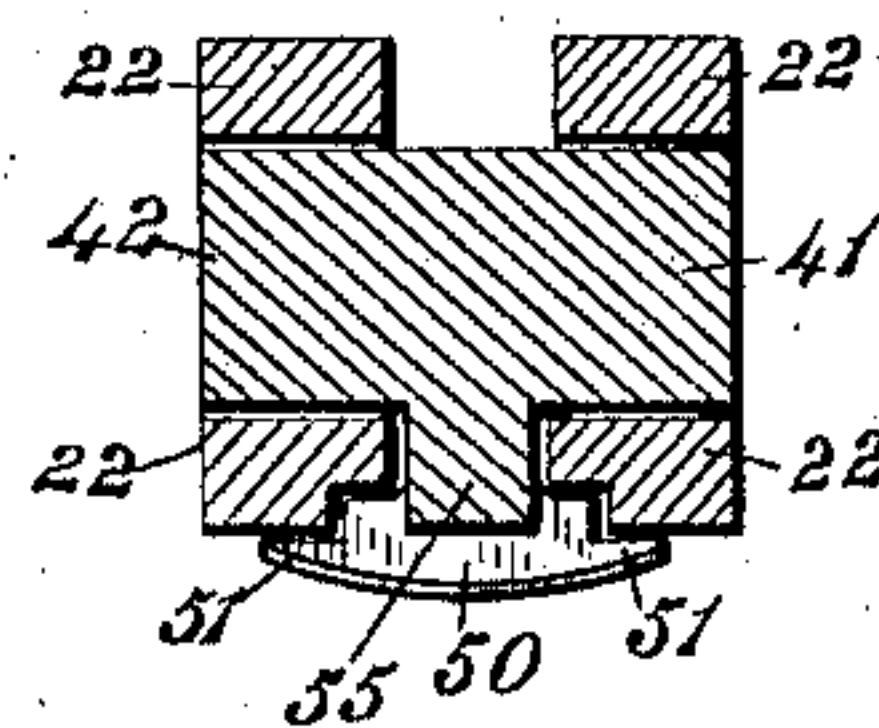
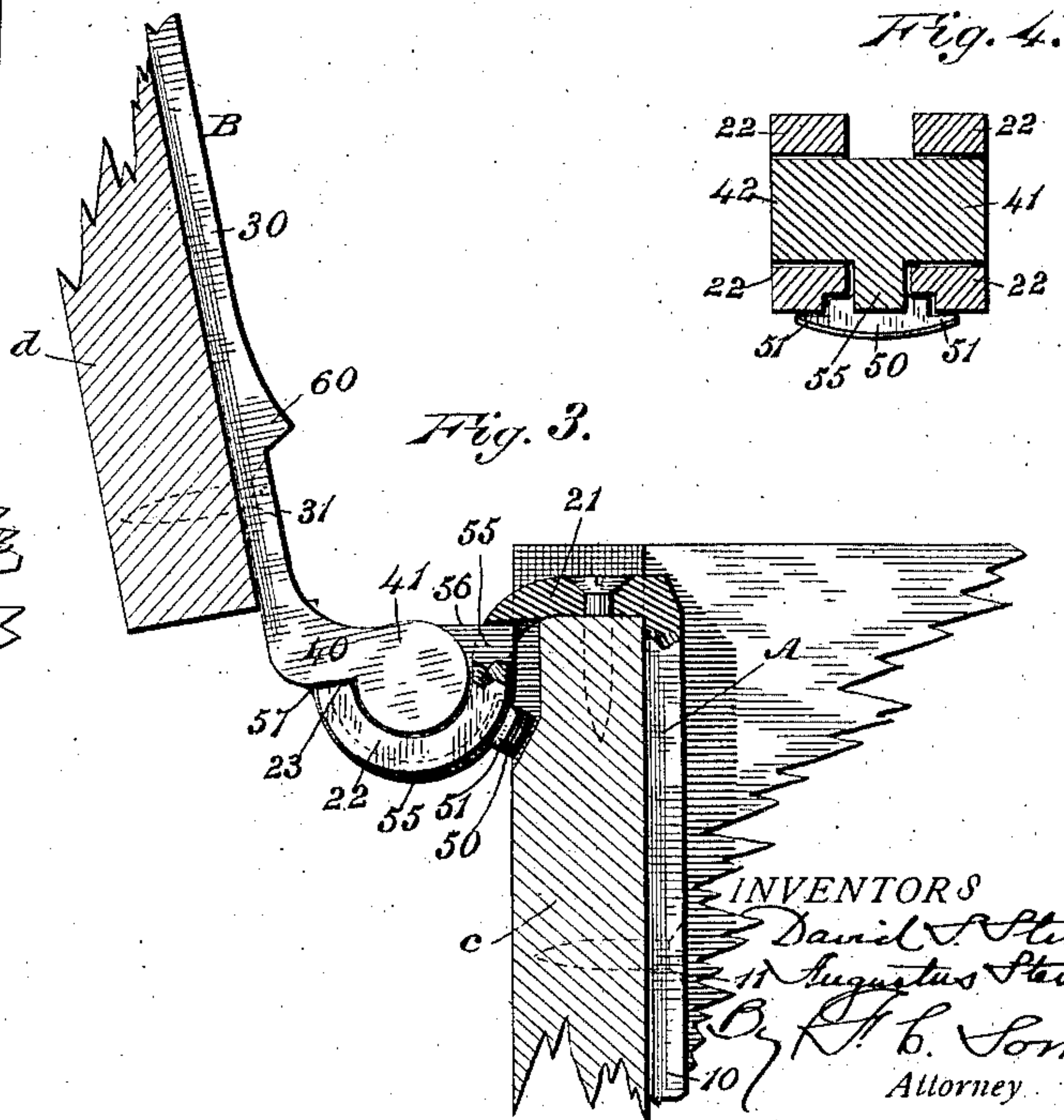
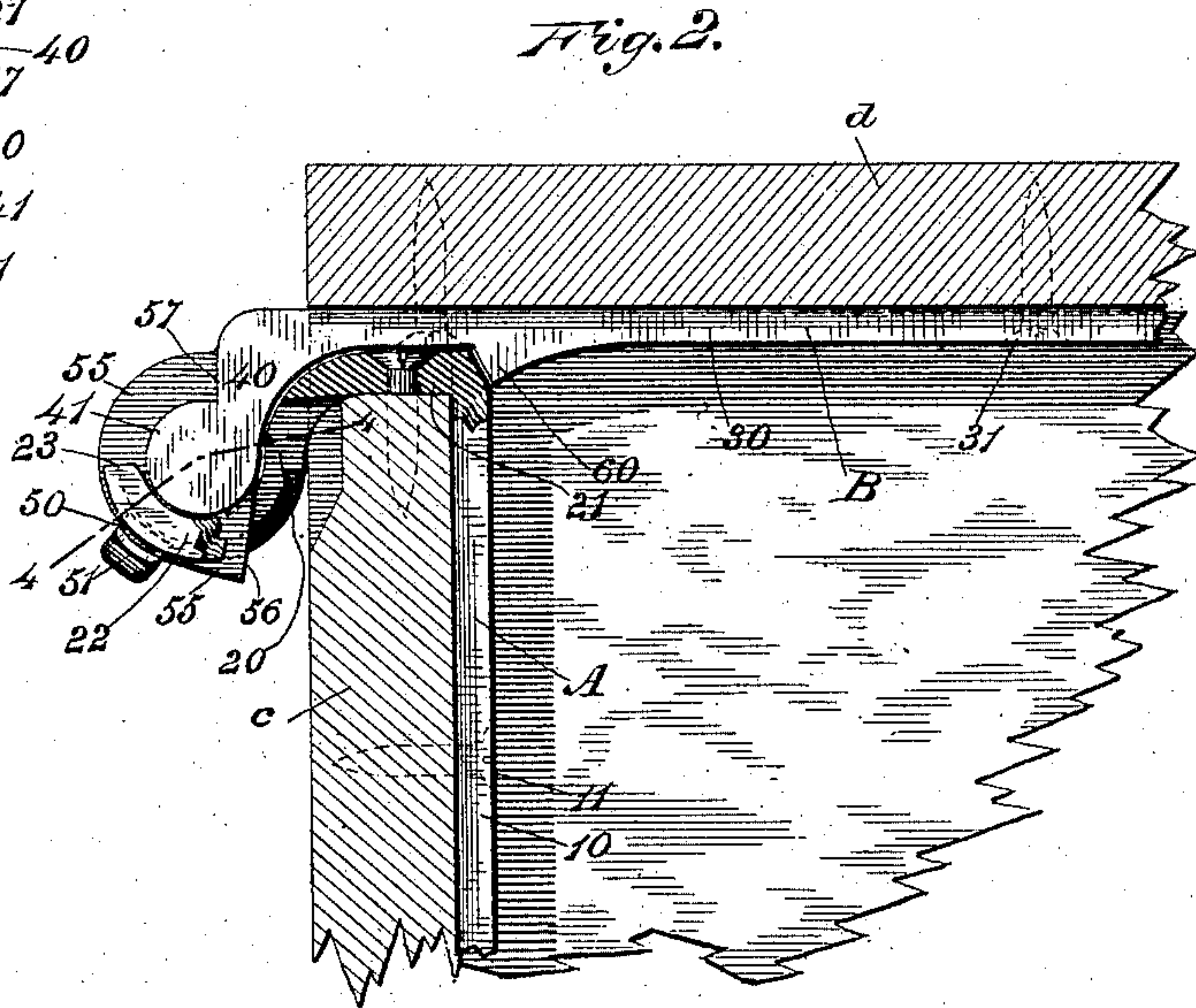
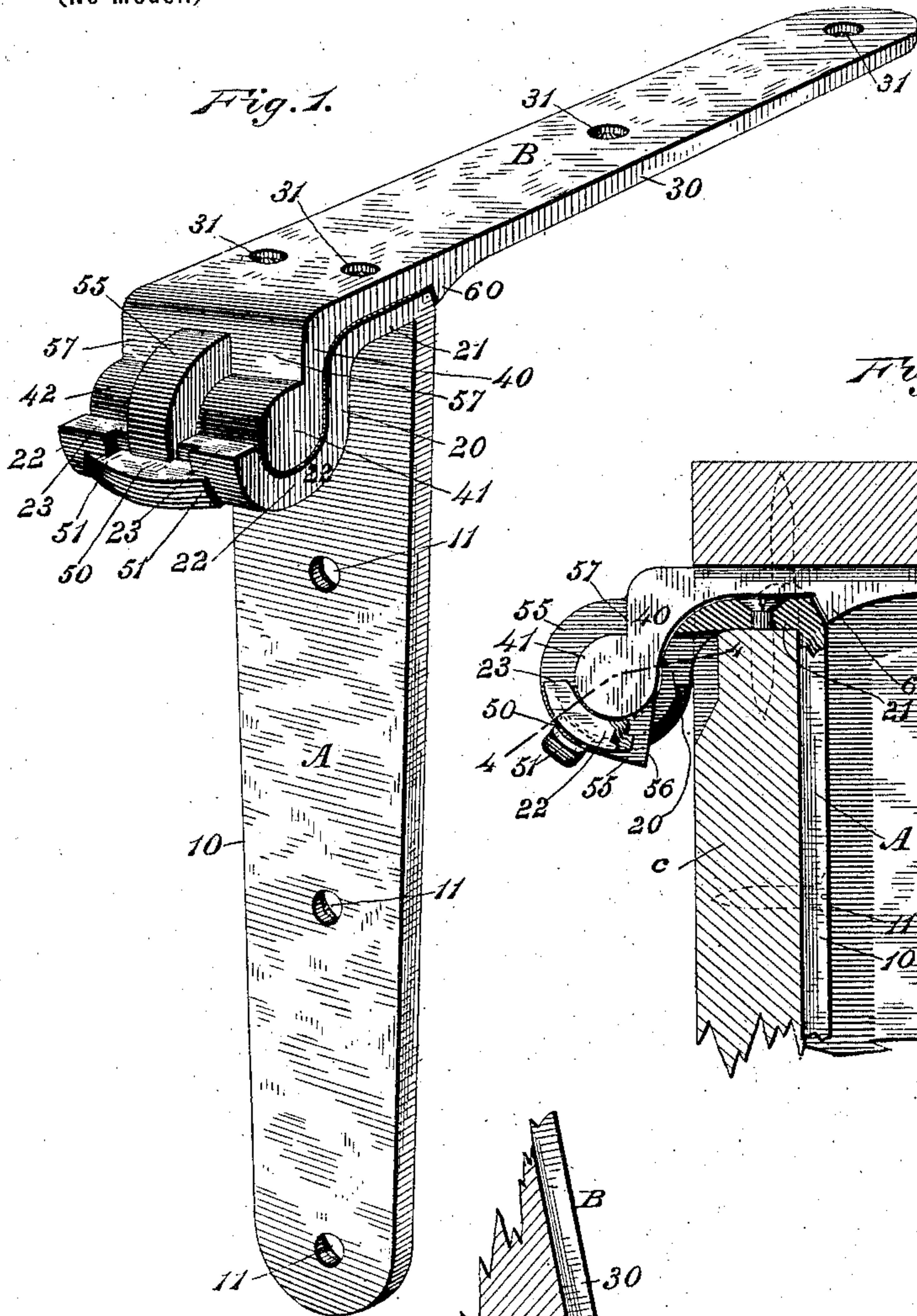
No. 704,590.

Patented July 15, 1902.

D. S. STIMSON & A. STEVENSON.
PINLESS HINGE.

(Application filed Mar. 25, 1902.)

(No Model.)



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DAVID SAMUEL STIMSON AND AUGUSTUS STEVENSON, OF KITTERY, MAINE.

PINLESS HINGE.

SPECIFICATION forming part of Letters Patent No. 704,590, dated July 15, 1902.

Application filed March 25, 1902. Serial No. 99,917. (No model.)

To all whom it may concern:

Be it known that we, DAVID SAMUEL STIMSON and AUGUSTUS STEVENSON, citizens of the United States of America, residing at Kittery, in the county of York, in the State of Maine, have invented certain new and useful Improvements in Pinless Hinges, of which the following is a specification.

This invention relates to a pinless hinge, whereof the members are readily separable from each other. This hinge is adapted for use in connection with chests, sand-flasks for metal castings, scuttles, outside windows, and many other purposes. It is especially useful for hinging the covers or lids of the mess-chests used in the United States Army and Navy for the storage of food, as these chests need to be frequently and thoroughly cleaned.

The principal object of the invention is to provide a separable hinge of simple construction which will permit the lid or other hinged part to be readily separated from and restored to the chest or body to which it belongs by unskilled persons and which will render the chest secure when locked.

Figure 1 of the accompanying drawings represents a perspective view of this pinless hinge, the parts thereof being assembled and in closed position. Fig. 2 represents a transverse section of a corner of a chest or box provided with this improved hinge, one member thereof being secured to the back of the box and the other member to the lid or cover thereof, the latter being in closed position and a portion of the stationary hinged member being in section. Fig. 3 represents a section similar to that shown in Fig. 2, except that the lid is in open position. Fig. 4 represents a transverse section of the hinge through the pivot-joint thereof on line 4 4, Fig. 2. Fig. 5 is a diagram representing the movement of the swinging portion of the hinge in the act of separation from the stationary portion thereof.

The same reference characters are used in all the figures to designate the same parts.

This hinge comprises two members A and B, one being adapted to swing on the other without any connecting-pintle. The member A may constitute a stationary member, attachable, for instance, to the inner face of

the back *c* of a chest, and the member B may constitute a swinging member fulcrumed on the stationary member and attachable to the inner face of the cover or lid *d* of such chest.

The stationary member A comprises an attaching-plate 10 and a fulcrum-plate 20, preferably integral with each other, the fulcrum-plate extending from one end of the attaching-plate at an angle thereto. The attaching-plate is preferably provided with screw-holes, as 11, for the attaching-screws. The fulcrum-plate comprises a depressed slotted curved extension forming shallow open bearings 22, in which the journal portion of the other hinge member turns. When the hinge is constructed for attachment to the interior of a box or chest, as shown in the drawings, the fulcrum-plate also comprises a hook 21 between the shallow bearings and the attaching-plate. This hook engages the upper edge of the back of the chest, being preferably set in a recess therein. The hook portion of the plate is preferably provided with screw-holes for additional attaching-screws. The curved extension 22 terminates in a plane below the plane of the hook portion 21, and the ends 23 thereof serve as stops or rests for the swinging member of the hinge, as herein- after described. The slotted curved extension is rabbeted on its under side adjacent to its slot for a purpose hereinafter described.

The swinging member B comprises an attaching-plate 30 and a pivot-flange 40, integral with said plate at one end thereof. The end of this flange is rounded, forming journals 41 and 42, which rest in the open bearings 22. This flange is provided with a projection or button, as 50, which engages the slot between said bearings and prevents lateral displacement. This button is preferably integral or rigid with the pivot-flange and preferably provided with lateral lips, as 51, which overlap the fulcrum-plate and lock the members in assembled position. This button is preferably rabbeted on its under side and engages the rabbeted edges of the arc-shaped extension 22. In this construction the body of the button is extended below the outer face of said extension, and hence it cannot be easily cut off to surreptitiously open the chest, as might be the case if it were not thus sunken. A rib or tongue 55 may extend from the but-

ton in either or both directions, being preferably truncated at its lower end and forming a beveled stop 56, which comes against the under side of the fulcrum-plate when the hinge is open. A shoulder 57 is formed at the base of the pivot-flange, and this shoulder rests on the ends or stops 23 of the stationary member when the swinging member is open. The lid is thus doubly held at the desired angle when in open position.

The swinging member is provided near its pivot-flange with a stop 60, which may be in the form of a transverse cleat, which prevents detachment of the parts of the hinge when the lid is closed. This stop then engages the upper end of the stationary member A and prevents the bending in of the back of the chest to disengage the parts of the hinge. The meeting edges of the stop 60 and member A are beveled, as indicated, to permit the detachment of the cover when unlocked. This is accomplished by slightly raising the cover vertically and bodily and at the same time moving it backward, as indicated in Fig. 5.

This hinge is very simple in construction. Each member may be cast complete, and no pintle is required to connect the parts.

We claim as our invention—

1. A hinge comprising two members, one having a slotted curved extension and the other having a rounded end journaled in said curved extension, said rounded end being provided with a button engaging the slot of said extension and overlapping the edges thereof.

2. A hinge comprising two members, one having a slotted curved extension and the other having a rounded end journaled in said curved extension, said rounded end being provided with a button engaging the slot of said extension and overlapping the edges thereof, the overlapping edges of said button and said extension being rabbeted.

3. A hinge comprising two members, one

having a depressed slotted curved extension and the other having a depressed rounded end journaled in said curved extension, said end being provided with a button engaging the slot of said curved extension and overlapping the edges thereof.

4. A hinge comprising two members, one of said members consisting of an attaching-plate and a fulcrum-plate at an angle thereto, said fulcrum-plate having a depressed slotted curved extension, and the other member having a depressed rounded end journaled in said curved extension, said rounded end being provided with a button engaging the slot of said curved extension and overlapping the edges thereof.

5. In a hinge the combination of a member comprising an attaching-plate and a fulcrum-plate, said fulcrum-plate having a slotted curved extension and a hooked portion between said curved extension and attaching-plate, and a member provided with a rounded end journaled in said curved extension, said rounded end being provided with a button engaging the slot of said curved extension and overlapping the edges thereof.

6. In a hinge the combination of two members adapted to swing on each other and close at right angles, one of said members comprising an attaching-plate and a fulcrum-plate having a slotted curved extension, and the other member having a depressed rounded end journaled in said curved extension, said rounded end being provided with a button engaging the slot of said extension and overlapping the edges thereof, and said swinging member being provided with a stop for engaging the stationary member, whereby the parts are locked together when closed.

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