

989,350.

E. R. HANSON.
INVISIBLE HINGE.
APPLICATION FILED FEB. 11, 1910.

Patented Apr. 11, 1911.

2 SHEETS-SHEET 1.

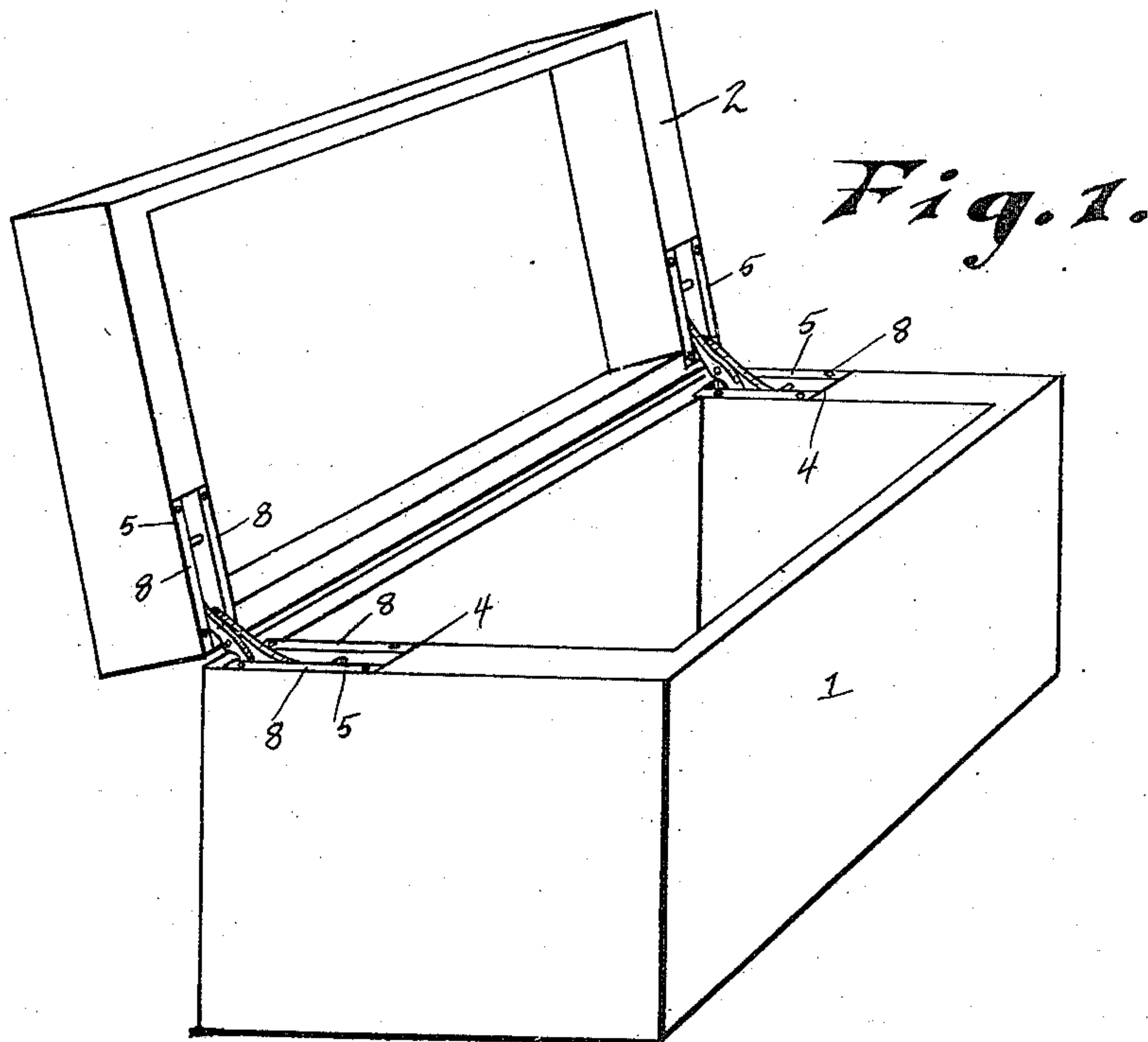
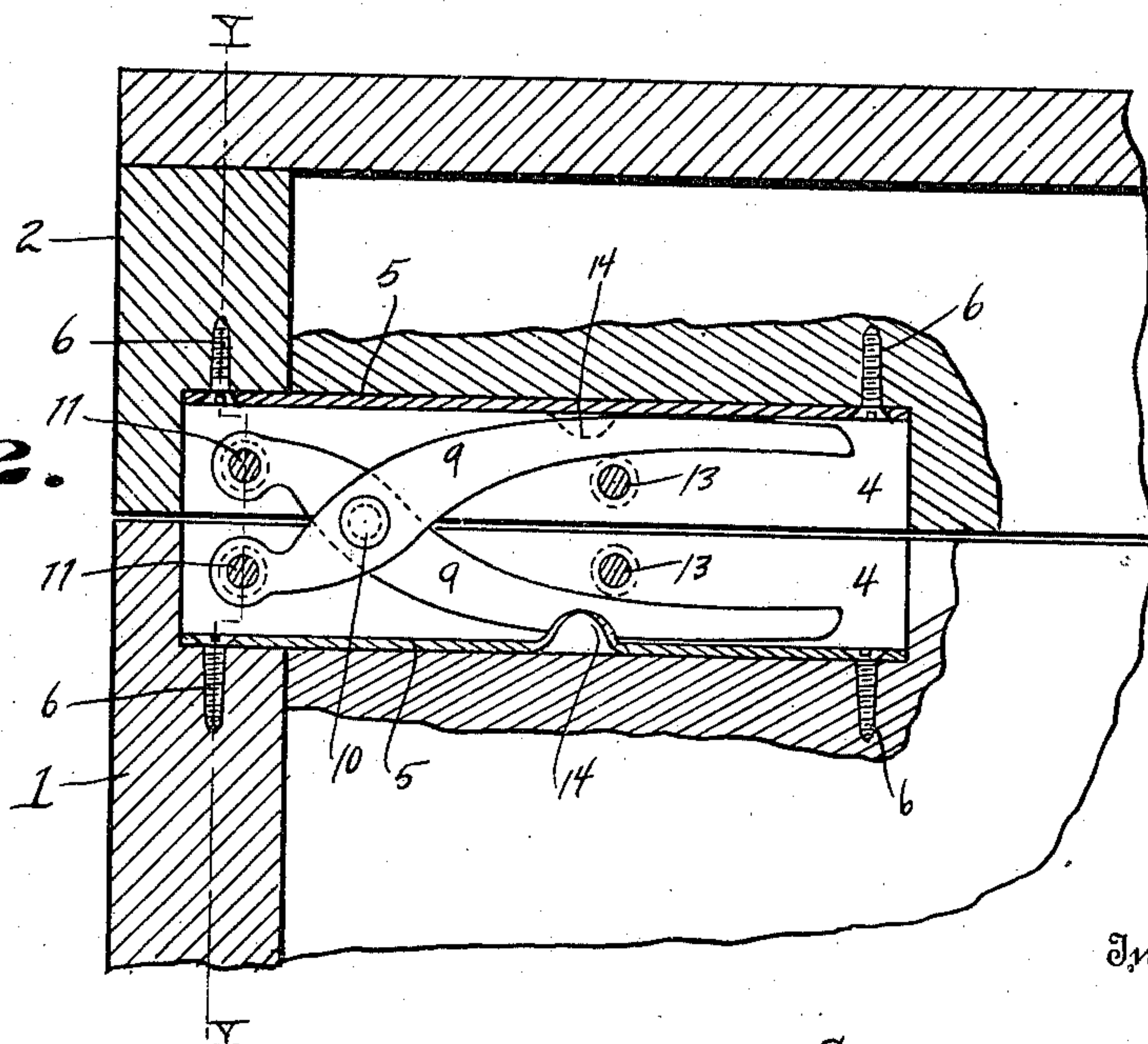


Fig. 2.



Witnesses
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J. D. Bremer

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Edwin R. Hanson
Erwin & Wheeler

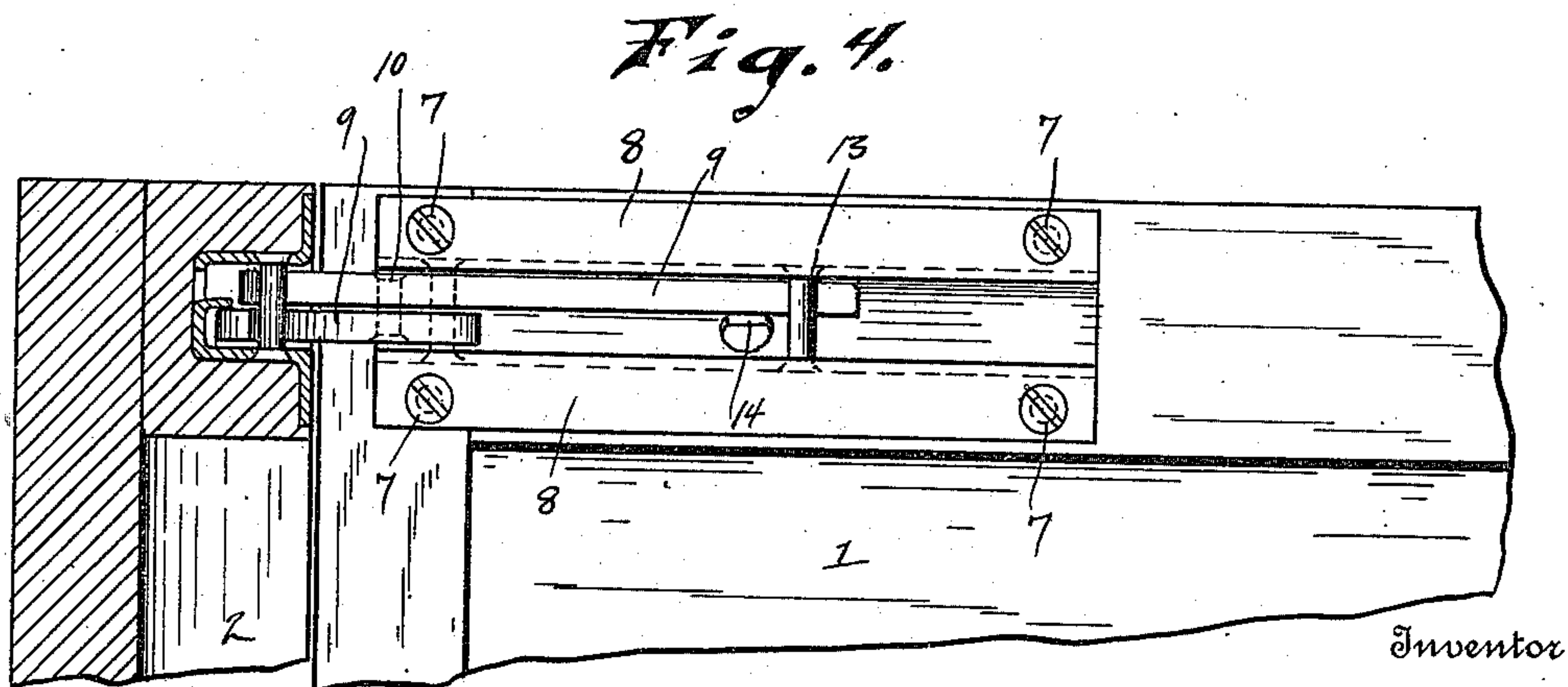
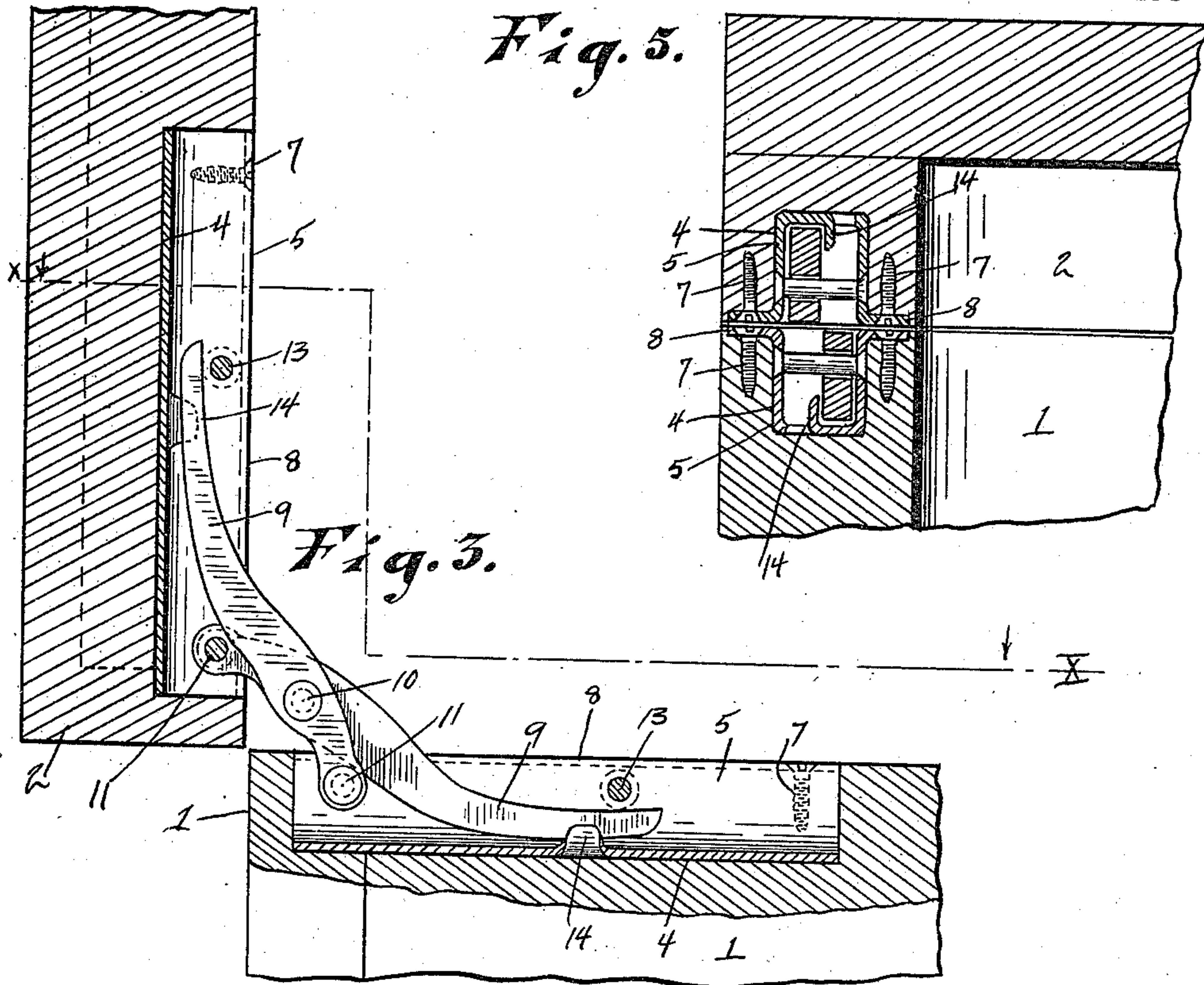
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2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

EDWIN R. HANSON, OF SPARTA, WISCONSIN.

INVISIBLE HINGE.

989,350.

Specification of Letters Patent.

Patented Apr. 11, 1911.

Application filed February 11, 1910. Serial No. 543,351.

To all whom it may concern:

Be it known that I, EDWIN R. HANSON, a citizen of the United States, residing at Sparta, county of Monroe, and State of Wisconsin, have invented new and useful Improvements in Invisible Hinges, of which the following is a specification.

My invention relates to improvements in so called invisible hinges for trunks, tool chests, and the like, and it pertains to that class which are adapted as the cover of the chest is thrown open, to serve the two fold purpose of a brace, as well as a hinge for supporting the cover in its raised or inclined position.

My invention is further explained by reference to the accompanying drawings, in which—

Figure 1 represents a perspective view of a chest provided with my improved hinge. Fig. 2 is a vertical section of one corner of the chest and cover provided with my hinge, showing such parts in their closed position. Fig. 3 represents the device shown in Fig. 2, showing the cooperating parts in their open position. Fig. 4 is a horizontal section, drawn on line $x-x$ of Fig. 3; and Fig. 5 is a vertical section, drawn on line $y-y$ of Fig. 2.

Like parts are identified by the same reference numerals throughout the several views.

1 represents the body of the chest and 2 the cover. The respective ends of the chest and cover are provided with recesses 4 and 4 for the reception of the hinge. The respective hinges comprise the sheet metal cases 5, 5, which are secured in the recesses 4 by ordinary wood screws 6, 6, as shown in Fig. 2, or with screws 7, 7, as shown in Figs. 3 and 4.

In the form shown in Figs. 1, 4 and 5, the sheet metal case, is provided with two outwardly extending horizontal flanges 8, 8, which bear upon the edges of the trunk and cover upon the respective sides of the recesses 4. In the modified form shown in Fig. 2, however, the horizontal flanges 8 are dispensed with and said sheet metal cases are secured in the recesses by the screws 6, which are inserted through the bottom of said cases.

The respective cases 5, 5, are connected together by the hinge members 9, 9, which members are pivotally connected with each other by the pivotal bolt 10 and with the

respective cases 5, 5, by the pivotal bolts 11, 11, while the opposite end of said hinge members are adapted to bear against the upper and lower sides of the respective cases 5, 5, as more clearly shown in Figs. 2 and 3 and are adapted as the cover 2 is opened and closed, to be retained in place as they move forwardly and backwardly, by and between said pins and the upper and lower walls of said cases. Thus it is obvious that as the cover is thrown back, the lower hinge member 9 will be drawn rearwardly beneath and retained in place by the pin 13 of the lower case, while the pin 13 of the upper case will be moved outwardly and brought to a point near the extreme upper end of the upper hinge member, as shown in Fig. 3, whereby said hinge members serve to support the cover in its vertical position, while they limit its backward movement.

To prevent the lateral movement of the free ends of the respective hinge members 9 within the respective cases 5, I preferably provide said cases with an inwardly projecting guide flange 14, which flanges serve to retain the respective hinge members in sliding contact with the opposing walls of the case and prevent them from moving laterally from one side of the case to the other. For convenience of construction, the guide flanges 14 may be formed by pressing the walls of the case inwardly at such point, as indicated in Figs. 2 and 3.

While I have, for brevity of description, shown and described my improved hinges as being used in connection with a chest, I wish it to be understood that the same is equally adapted to be used with trunks, boxes and doors of various kinds, as circumstances may require.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the described class, the combination of a pair of metallic cases, adapted to be secured in opposing recesses of a chest and cover, a pair of hinge members pivotally connected together at one side of their centers and at their respective ends to one end of said metallic cases, a pin supported at its respective ends in the opposing walls of said cases above the free ends of said hinge members adapted to retain said members within said metallic cases as the cover is thrown back to its open position.

2. In a device of the described class, the combination of a pair of metallic cases provided with laterally projecting flanges, said cases being adapted to be secured in opposing recesses of a chest and cover by a plurality of screws, said screws being inserted through apertures provided therefor in said laterally projecting flanges and having retaining bearings in the walls of said case and cover, a pair of hinge members pivotally connected together at one side of their centers and at their respective ends to one end of said metallic cases, a transversely arranged pin supported at its respective ends in the opposing walls of said case at right

angles to the free ends of said hinge members within said metallic cases as the cover is thrown back to its open position, an inwardly projecting guide flange located in the bottom of said cases adapted to retain the respective hinge members in sliding contact with the opposing walls of said cases, substantially as set forth.

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

EDWIN R. HANSON.

Witnesses:

Z. S. RICE,

MINNIE KNUDSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
