

A. H. WEISS.
HINGE FOR BOXES.
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899,818.

Patented Sept. 29, 1908.

Fig. 1

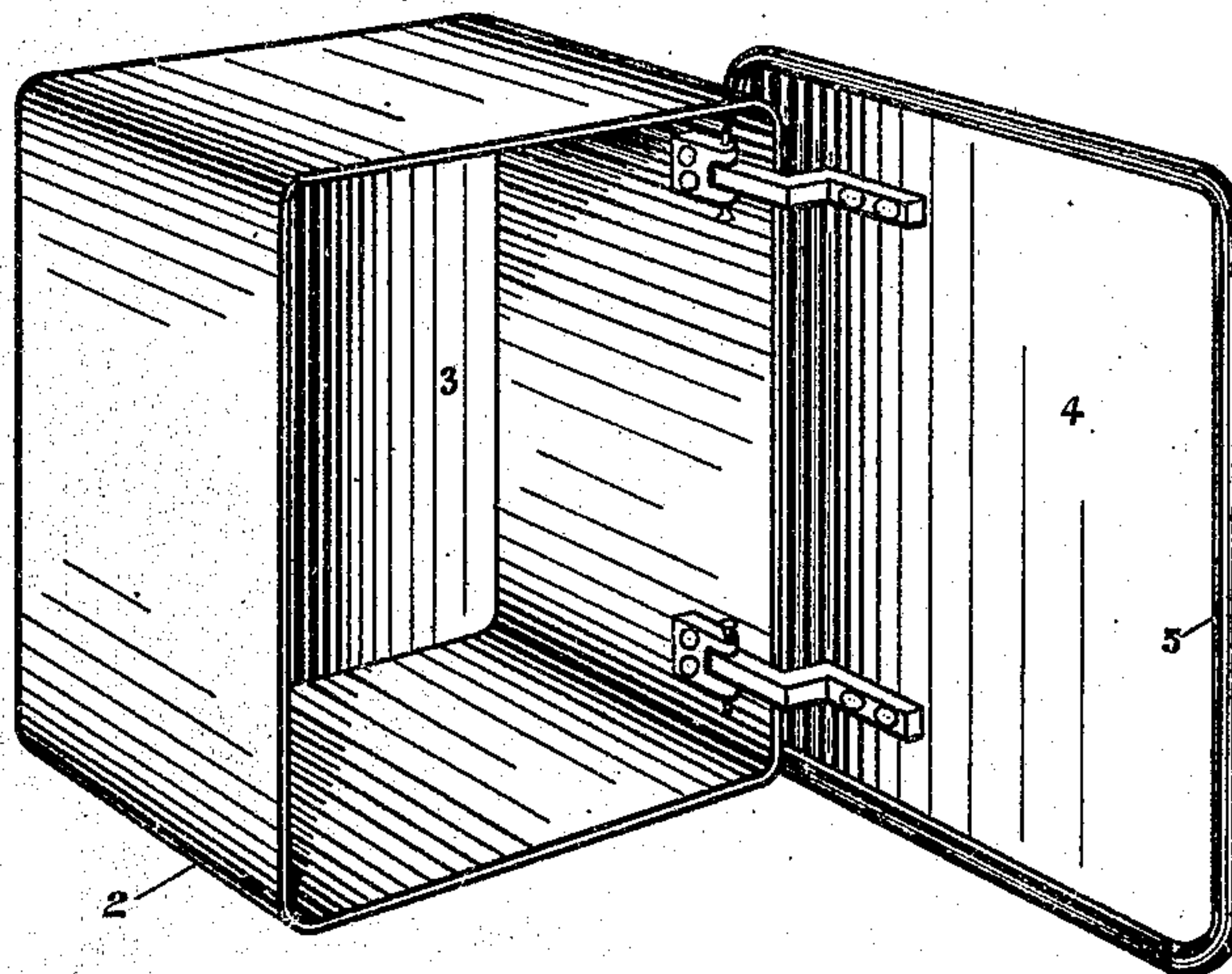


Fig. 2

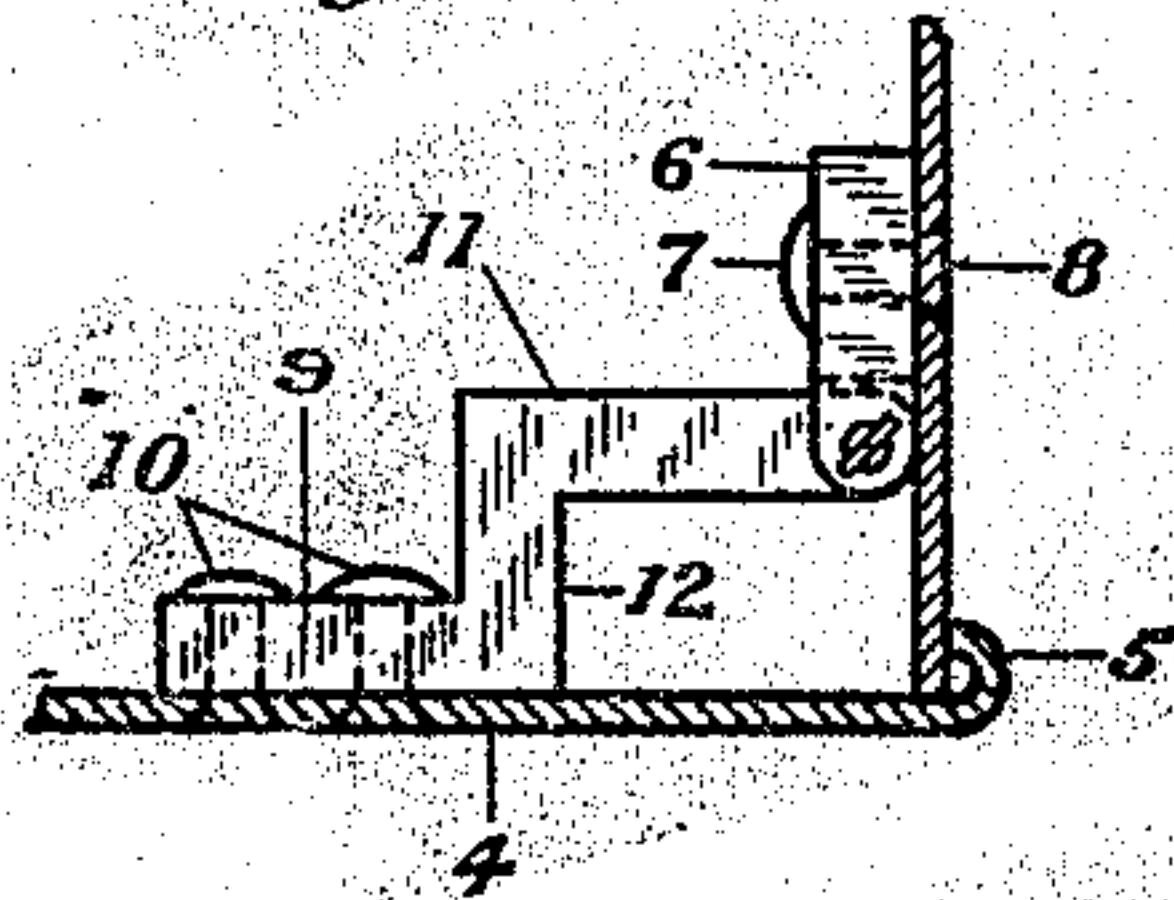


Fig. 3

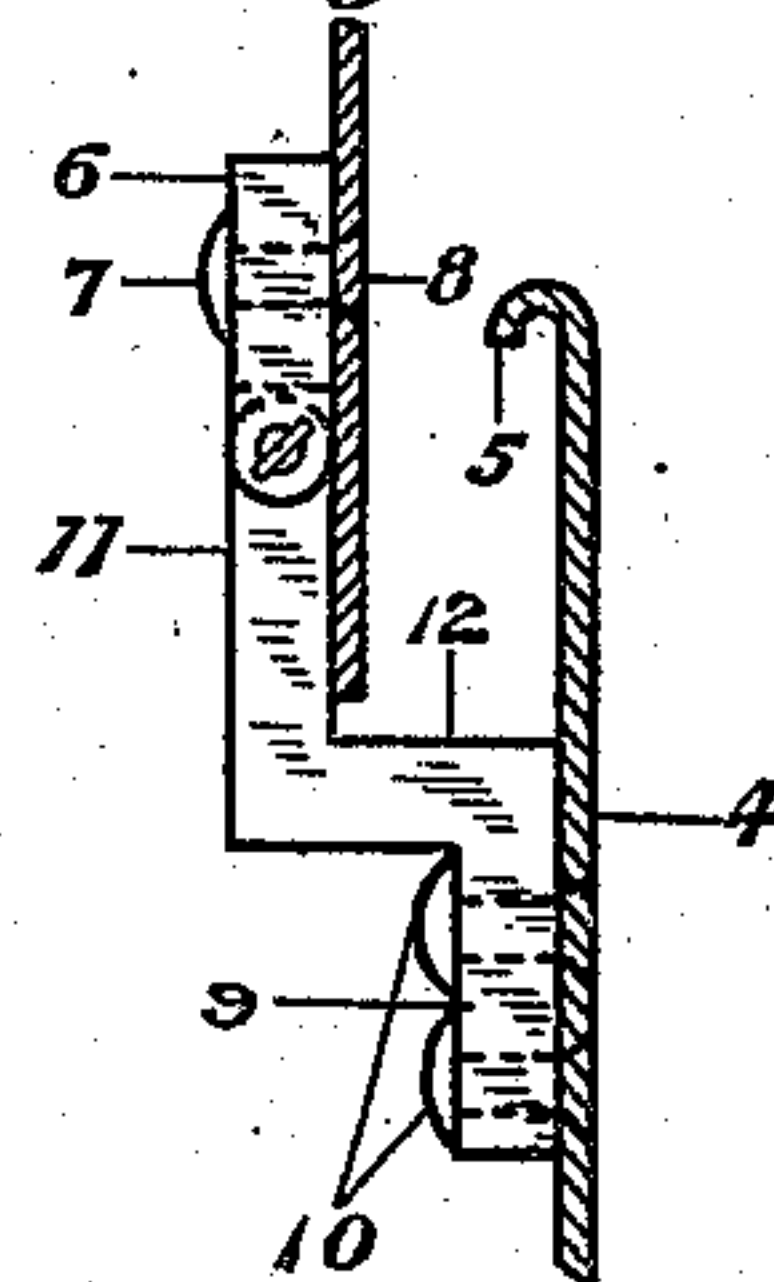
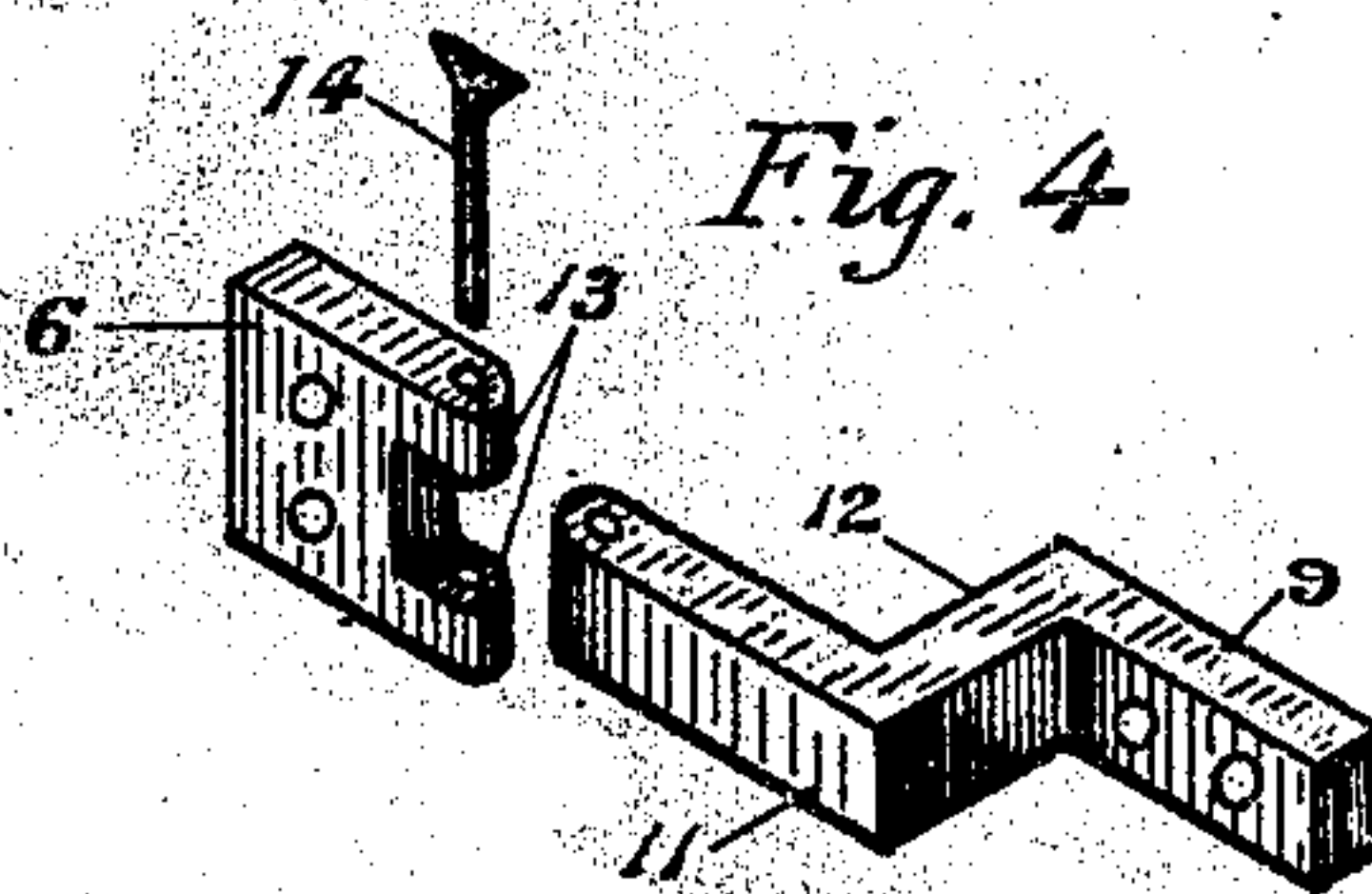


Fig. 4



Witnesses

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UNITED STATES PATENT OFFICE.

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HINGE FOR BOXES.

No. 899,818.

Specification of Letters Patent.

Patented Sept. 29, 1908.

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To all whom it may concern:

Be it known that I, ALFRED H. WEISS, a citizen of the United States of America, and resident of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Hinges for Boxes, of which the following is a specification.

My invention relates to hinges for boxes and more particularly for sheet metal or other thin-walled boxes provided with a finished exterior and having lids with inwardly extending flanges projecting over the opening in the box.

In certain classes of apparatus as for instance in boxes or cases for telephone instruments it is desired that a hinged cover be provided for the same in which the hinges do not cut up the edges of the box or cover or otherwise mar the external appearance of the same and in which the cover which may be provided with an inwardly curved edge may be opened and closed as often as may be necessary without marring the enamel or other finish applied to the said edge. Thus where the hinged edge of the cover of a box is turned inwardly as in the case of a sheet metal box, and ordinary hinges are employed, the cover in opening causes the rounded hinged edge to scrape upon the contiguous edge of the box and thus to scratch and scrape off the finish that has been applied to the said edge, so that when the cover is again closed a streak of bare metal or scratched surface extends along the side of the box and presents an unsightly appearance. In this invention such streaked appearance is avoided since the said edge of the lid moves away from the side of the box as soon as the cover starts to open and the lid may thus be opened and closed an infinite number of times without experiencing the trouble mentioned. It is also desired in the case of sheet metal boxes of this type that the hinges be strong and rigidly secured to the box so that the same admits of considerable rough handling without undue strain upon the hinges or the surrounding parts of the box or cover.

My invention has for its object the provision of means for accomplishing the above mentioned desirable features whereby a strong and efficient hinge is provided which is invisible from the exterior of the box and cover and which admits the cover to be opened and closed without scratching or marring the external finish of the same.

My invention is illustrated in the accompanying drawing forming part of this specification, in which the same reference characters are used throughout the various views to designate like parts, and in which:

Figure 1 is a perspective view of the box and cover with hinges of my improved type applied thereto; Fig. 2 is a detail view of the hinge showing the position of the cover when closed; Fig. 3 is a similar view showing the position of the parts when the cover is open, and Fig. 4 is a detail perspective view of the hinge with its parts separated.

In these figures 2 designates the sides of the box, 3 the bottom and 4 the cover, all of which are preferably of drawn sheet metal. The exterior of the box is preferably provided with the usual enamel finish of the desired color and the edges 5 of the cover are turned inwardly or curved over as is clearly indicated in Figs. 2 and 3. When the cover is closed therefore, the edges 5 closely fit against the exterior of the sides 2 and impart a neat and ornamental appearance to the box. The hinge comprises the member 6 preferably secured inside of the side 2 of the box by means of the rivets 7 having the counter-sunk heads 8 upon the outside and over which the finish of the box is applied so that they are invisible from the exterior. The portion of the hinge secured to the cover comprises a part 9 riveted in like manner by the rivets 10 to the cover 4 and an offset portion 11 connected with the part 9 by the intervening portion 12. The fixed member 6 is provided with the projecting lips 13 between which the end of the offset part 11 is adapted to enter and through which the pivot pin 14 extends, thus pivotally connecting the two parts of the hinge together.

The closed position of the cover is indicated in Fig. 2 while its open position is shown in Fig. 3. From the latter it is evident that from the moment the cover starts to open the edge 5 is separated from the side 2 of the box and does not rub against it to scratch or otherwise mar the finish upon the said edge as would be done if an ordinary hinge were employed. Moreover when the box is in its open position the offset portion 11 of the hinge rests flatly against the inside of the box and does not cause undue strain upon either the edge of the box or the hinging parts and is not so liable to strain either the box or the hinges and to get them out of

order as with the ordinary type of hinge. The offset portion of the hinge secured to the cover while shown in the drawing parallel to the cover, may obviously be at any desired
5 angle in order to permit the opening of the cover to any extent, and in any case the cover is suitably braced when opened so that no harm is liable to occur to it.

It is obvious that various changes may be
10 made in the specific details of the hinge such as the method of securing the parts thereof to the box and cover, the angular relation of the parts, and the method of connecting the two parts of the hinge. Still other varia-
15 tions may be made without departing from the principle of the invention and I therefore do not wish to be limited in all respects to the specific details shown and described. But

20 Having thus described my invention what I claim and desire to secure by Letters Patent is:

The combination with a box and its lid, of
a hinge comprising in its construction a
25 member provided with an outwardly pro-

jecting perforated lip secured on the inside of the box a short distance from the open edge thereof and a movable member pivoted to the member secured in the box and having two parallel portions with an offset between 30 them, one of said portions being secured to the inside surface of the lid, the distance of the pivot below the open edge of the box being equal to the length of the offset, whereby the lid will be brought into exact connec- 35 tion with the open edge of the box when swung into a plane at right angles with the sides of the box, and the length of the offset being sufficient for the lid to be moved into a plane parallel with the side of the box with- 40 out coming into contact with the exterior of the box, and a pin pivotally connecting said hinge members, substantially as described.

Signed by me at Chicago, county of Cook
State of Illinois in the presence of two wit- 45 nesses.

ALFRED H. WEISS.

Witnesses:

ROBERT LEWIS AMES,
EDITH F. GRIER.