

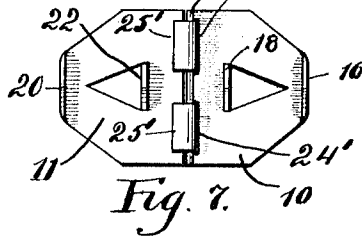
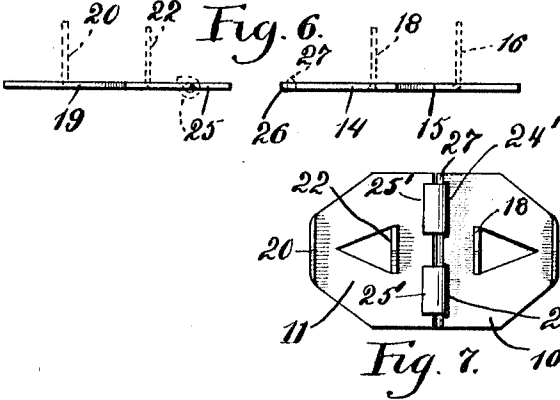
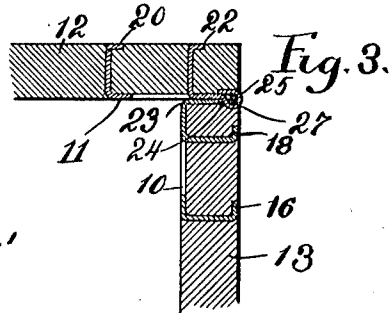
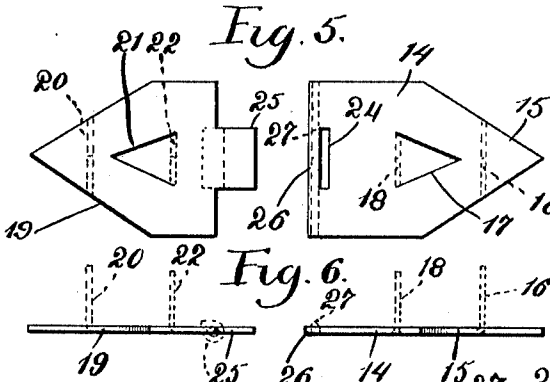
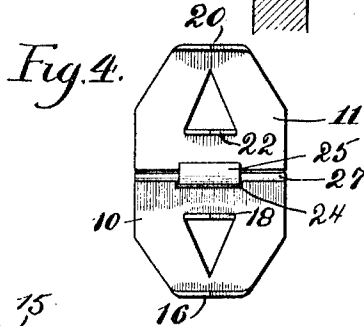
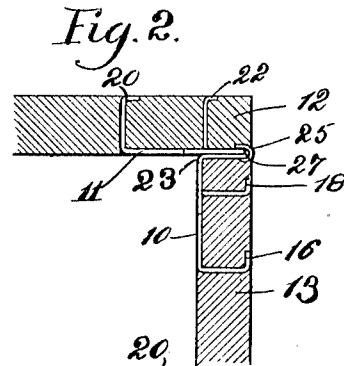
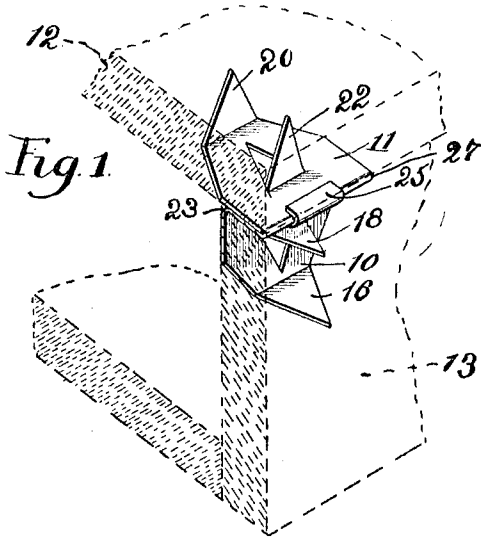
C. W. BADE.

HINGE.

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1,001,575.

Patented Aug. 22, 1911.



Witnesses:

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UNITED STATES PATENT OFFICE.

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HINGE.

1,001,575.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed April 3, 1908. Serial No. 424,865.

To all whom it may concern:

Be it known that I, CHARLES W. BADE, a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hinges, of which the following is a full, clear, and exact description.

The invention relates to hinges and more particularly to that type in which the members are stamped out of plates or sheet-metal and employed for small boxes and the like.

In hinges of the type to which the invention relates, it is now common practice to form the hinge-members with interfering or alined socket-portions adapted to be connected by a pintle extending therethrough, the sockets being formed by bending or reverting projecting strips or tongues on to the hinge-members, to receive a pin for pivotally connecting the members together. An objection incident to hinges thus constructed, and when they are employed for light boxes, such as cigar boxes, or paper-boxes, is that the socket-portions of the members project beyond the members themselves and when the boxes are provided with a covering, the projecting hinge-portions are objectionable, in that the covering is irregular or becomes broken. Furthermore, the cost of manufacture is increased by the employment of a separate pintle and inasmuch as these devices are manufactured in large quantities, even a slight increase of labor is material.

The invention designs to provide a hinge comprising two members, each of which is formed of a piece of sheet-metal and which, when applied to an article, leaves a very slight projection beyond the hinge-joint between the parts whereto the hinge is connected. By forming the hinge-members so that they are connected together without the use of a separate pintle or pin, the cost of manufacture is very materially reduced and the resultant construction is such that there is but a very slight projection resulting at the hinge-joint so that when the box is covered, as is frequently done in practice, the hinges themselves do not materially interfere with the application of the covering.

In the drawings: Figure 1 is a perspective of a hinge embodying the invention, the box-parts connected thereby being illustrated in dotted lines. Fig. 2 is a side eleva-

tion of the hinge, the box members being shown in section. Fig. 3 is a similar view, the hinge-members being also shown in section. Fig. 4 is a face view of the hinge-members. Fig. 5 is a plan of the blanks from which the hinge-members are formed. Fig. 6 is a side view of the same. Fig. 7 is a detail of a modified form in which the hinge-members are connected by a plurality of tongues.

The hinge comprises two members adapted to be secured to two parts which are to be connected together, *e. g.*, a box or the like, one of the members 10 being adapted to be connected to one of the members of the box and the other hinge-member 11 being adapted to be secured to the other member or lid 12 of a box. The hinge is illustrated as applied to a box in which the lid is hinged to the back or body 13 of the box. Each of the hinge-members is formed of a piece of sheet-metal cut and bent into shape to comprise means for fastening it to one of the hingedly connected parts respectively, and means for pivotally connecting it to the other hinge-member.

The blank from which hinge-member 10 is formed consists of a plate 14, one end of which is cut to a point, as at 15. The outer portion of this pointed end is bent at right angles to the plate 14 to constitute a prong or point 16 which is adapted to be driven into one of the box-walls to secure the hinge-member, of which it forms a part, to said wall. Plate 14 has a V-shaped cut at 17 so that the portion between the cut thereof may be bent at an angle to the plate to form a prong or point 18 for securing the hinge-member 10 to one of the walls of the box. The other hinge-member 11 is also formed of a plate of metal having a tapered end 19, the outer portion of which is bent at right angles to the plate to constitute a prong 20 for securing said member to the lid of the box and this plate is also cut centrally as at 21 to permit a portion thereof to be bent at right angles to the plate to form another prong 22 for securing said member to the same wall or lid of the box. When the hinge is to be applied to a box, as illustrated in Fig. 2, the plate 14 is bent as at 23 to overlie the top edge of the wall of the box to which member 10 is secured. Thus it will be seen that the hinge-members have integrally formed therewith prongs for secur-

ing them to the box-members or walls respectively.

One of the hinge-members is provided with a slot 24 adjacent its inner edge to receive a tongue 25 on the other hinge-member. The tongue 25 is integrally formed with member 11 and said tongue is adapted to be inserted through slot 24 and reverted against the outer face of said member, to pivotally connect the hinge-members. By extending the reverted end against said face, the tongue will be secured between the box-wall and the body of said member. By cutting slot 24 in one of the members and bending a tongue integrally formed on the other member through said slot, the members will be connected together without employment of a separate connecting-pin or part, the strip 26 between the slot 24 and the inner edge of plate 14 constituting a pintle about which one member swings relatively to the other. These hinges are usually formed of thin metal so that the pivot-strip 26 would not well serve as a pintle within the tongue 25 of the other member. The inner edge-portion of plate 14 is upset from end to end as at 27 so that the pintle-strip 26 will possess sufficient strength to effectively serve as a pintle and furthermore, will be thickened and rounded so that it will better serve as a pintle about which the hinge-member 11 may freely swing. The upset edge 27 is formed to project outwardly or upwardly from the plate of the hinge-member 10 to lie adjacent the edge of the plate of hinge-member 11. This disposition of the upset edge or portion of plate 14 causes the axis of the hinge to be brought to that point which permits a snug and close joint between the parts connected by the hinge-members. Furthermore, the hinge-members being formed of thin metal, are usually impressed into the wooden parts to which they are re-

spectively secured and the construction described makes it possible to locate the upset edge substantially flush with the outer wall of the box so that nothing but the tongue will project beyond.

In Fig. 7 a modified form of the invention is illustrated, in which one of the hinge-members is provided with a plurality of slots 24' which are adapted to receive a corresponding number of tongues 25' on the other hinge-member.

The invention provides a hinge composed of members, each of which is formed of a single piece of sheet metal and which comprises integral means or prongs for securing the hinge-members to the elements to which they are respectively designed to be connected. The upset edge formed on one of the members is an important feature, in that it provides a suitable pintle which is integrally of the sheet-metal of one of the hinge-members.

The invention is not to be understood as restricted to the specific details set forth but may be modified by the skilled mechanic within the scope of the appended claim, without departing from the spirit and scope of the invention.

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

A hinge comprising the combination of a pair of members each formed of sheet metal, one of said members being provided with a solid edge-portion thicker than the sheet metal, to form a pintle and with a slot adjacent said pintle, the other member having an integral tongue bent around said pintle to pivotally connect the members.

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Witnesses:

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