W. S. HEAL.

HINGE.

APPLICATION FILED JAN. 14, 1915.

1,159,378. Patented Nov. 9, 1915.

Fig. 1

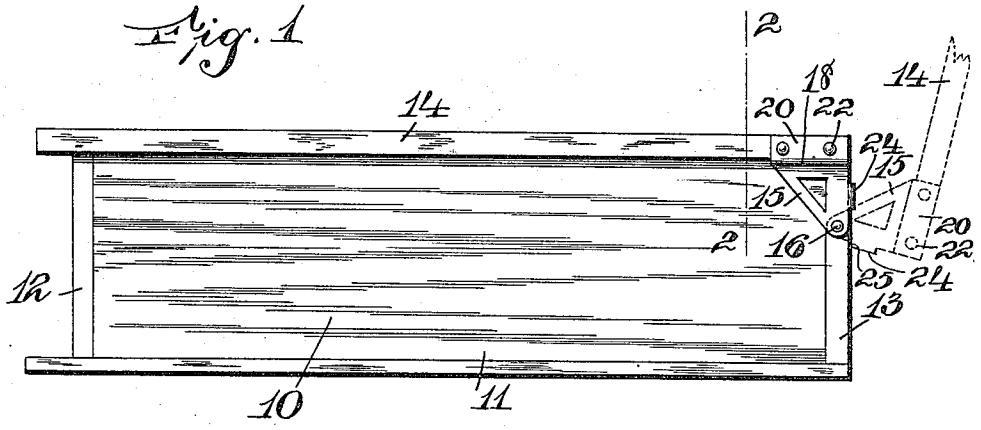
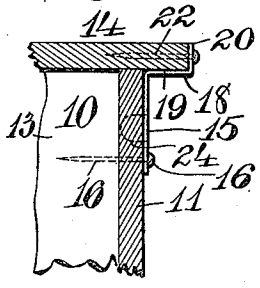


Fig. 2



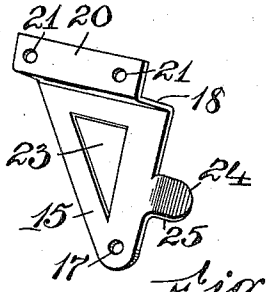


Fig. 3

WITNESSES:

M. A. Johnson.

F. Trautwetter.

INVENTOR

William S. Heal,

BY

Dyke & Campfield,

ATTORNEYS.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM S. HEAL, OF ELIZABETH, NEW JERSEY.

HINGE.

1,159,378. Specification of Letters Patent. Patented Nov. 9, 1915.

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To all whom it may concern:

Be it known that I, WILLIAM S. HEAL, a subject of the King of England, and a resident of Elizabeth, county of Union, and State of New Jersey, have invented certain new and useful Improvements in Hinges, of which the following is a specification.

This invention relates to an improved hinge and is adapted to be used in any place where it is applicable, but it is particularly designed to be used on boxes, provides for a cheap form of hinge which operates easily, and is stiff in the manner in which it is applied so as to keep the parts that are hinged in alinement.

The invention is particularly designed to be used on boxes with a lid that overhangs the top edge of the body portion of the box, such as handkerchief boxes or similar structures made of thin wood, the box being plain or suitably ornamented, such as the burnt wood boxes, although it will be understood that I do not wish to be limited to this particular use of the hinge.

The hinge is illustrated in the accompanying drawing which shows the hinge as applied to a box with an overhanging lid, Figure 1 being a side view of the box and illustrating the hinge and showing in dotted outline a part of the lid, the part shown dotted being swung back to an open position. Fig. 2 is an enlarged section on line 2—2, Fig. 1, showing a part of the box in section, but the hinge itself in elevation. Fig. 3 is a perspective view of the form of hinge shown in Figs. 1 and 2.

The box shown in the illustration consists of a bottom 10, sides 11, a front 12, a back 13 and a lid 14. In this type of box it gives a better finish to have the lid extend over the edges of the box at the front and sides particularly, and it can also be extended at the back, but in the illustration it is shown as being flush with the back. The lid is fastened so that it swings, the fastening being in the form of hinge plates, one on each side of the box at the back, only one, however, being shown in the illustration, the other side being a substantial duplicate with its parts reversed. The hinge shown consists of a hinge plate 15 which is fastened at one end so that it swings edgewise, any usual fastening means being employed, but the preferred form is by means of a brad or small nail 16 which is driven through the hole 17 of the plate 15 and is not driven tight enough to bind the plate against a comparatively free swinging motion. It will be evident that when the plate swings edgewise on its hinged end, it bears against the side of the box and is held in substantially its plane of movement, and both hinge plates on the sides of the box being held in this manner, the hinge plates are held in substantially parallel relation without undue strain on them. At its top edge the box is formed into a lip 18 which is bent out of the plane of the plate to any desired extent, but preferably perpendicular to the plane in which the plate swings, thereby bearing up against the bottom 19 of the side edge of the lid, as shown in Fig. 2, and is adapted to be fastened to the lid.

One manner of fastening is illustrated in Figs. 1, 2 and 3 which consists in bending up the end of the lip 18 as at 20, this bent end having perforations 21 through which the brads 22 are driven to secure the lid to the hinge plate. The lip 18 is broad from its juncture with the plate 15, to where it is bent up to form the end 20, as the distance that the cover extends beyond the edge of the box. To provide for lightening the plate I may cut away the metal as shown at 23.

If desired I may provide the hinge with a stop to limit the swinging of the lid when it is swung open, the stop shown consisting of an ear 24 which is bent perpendicularly or transversely to the plate 15 and to the side opposite the side to which the lip 18 is bent, the ears 24 of the hinge plates being arranged to extend at the back of the box as shown in full lines in Fig. 1, but when the lid is swung back, the bottom edge 25 of the ear 24 engages the back of the box as shown in dotted outline in Fig. 1, and the lid is held in its open position and does not swing back and thus prevents any overbalancing or upsetting of the box, due to the weight of the cover being swung too far back.

It will be obvious that other forms of fastening the hinge plate to the cover, and also for fastening the hinge plate so that it is pivotally secured to the body of the box, can be devised without departing from the scope of this invention.

The particular form of hinge plate is not essential, that is, its outline can be varied to meet requirements of ornamentation or

adaptability to certain uses, but the preferred form is, as shown, of a substantially triangular shape, one angle of the triangle being provided with a perforation for receiving a nail or brad so that the plate can be swung thereon, the side opposite the angle so perforated being bent over to form the lip that is secured to the lid.

Having thus described my invention, I claim:

A hinge plate having one end arranged so that the plate can be fastened to swing edgewise, the plate having at its outer end a lip bent substantially perpendicular to the plane in which the plate swings, the plate having means for attaching it to an element to be swung, the plate having on one edge an ear extending transversely to the plate, and to the side opposite the side to which the lip extends.

In testimony that I claim the foregoing, I hereto set my hand, this 13th day of January, 1915.

WILLIAM S. HEAL.

Witnesses:
M. A. JOHNSON,
H. TRAUTVETTER.

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