March 17, 1942. E. ROOS 2,276,419

CHEST

Filed Sept. 20, 1939 2 Sheets-Sheet 1

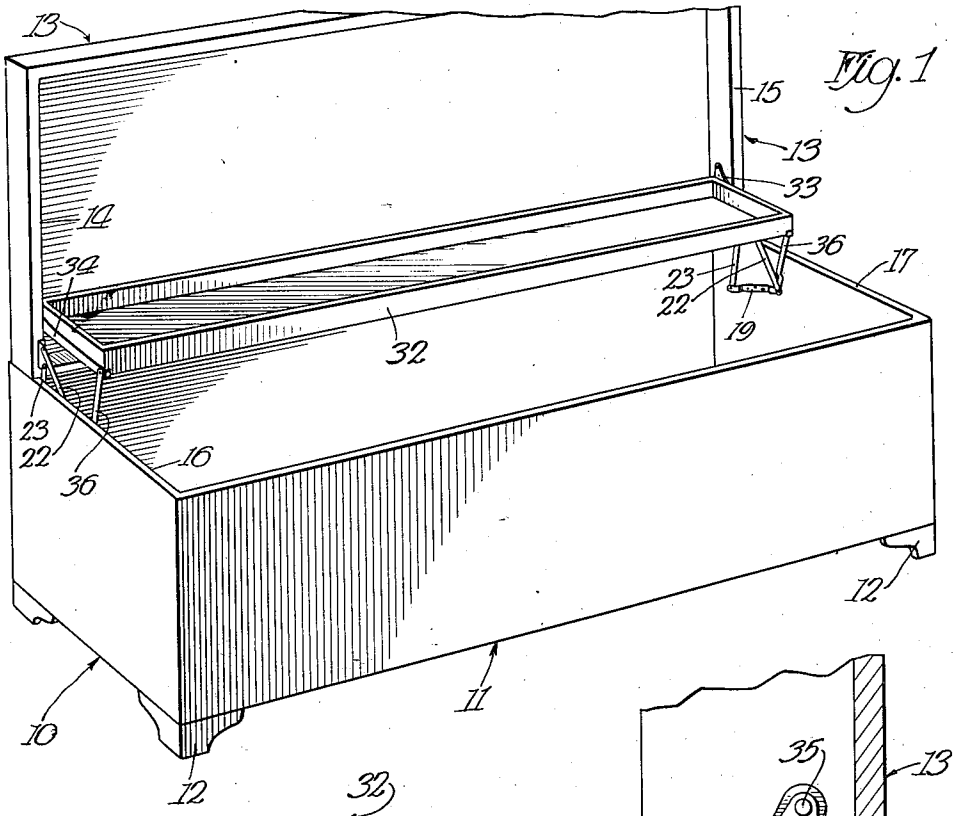


Fig. 1

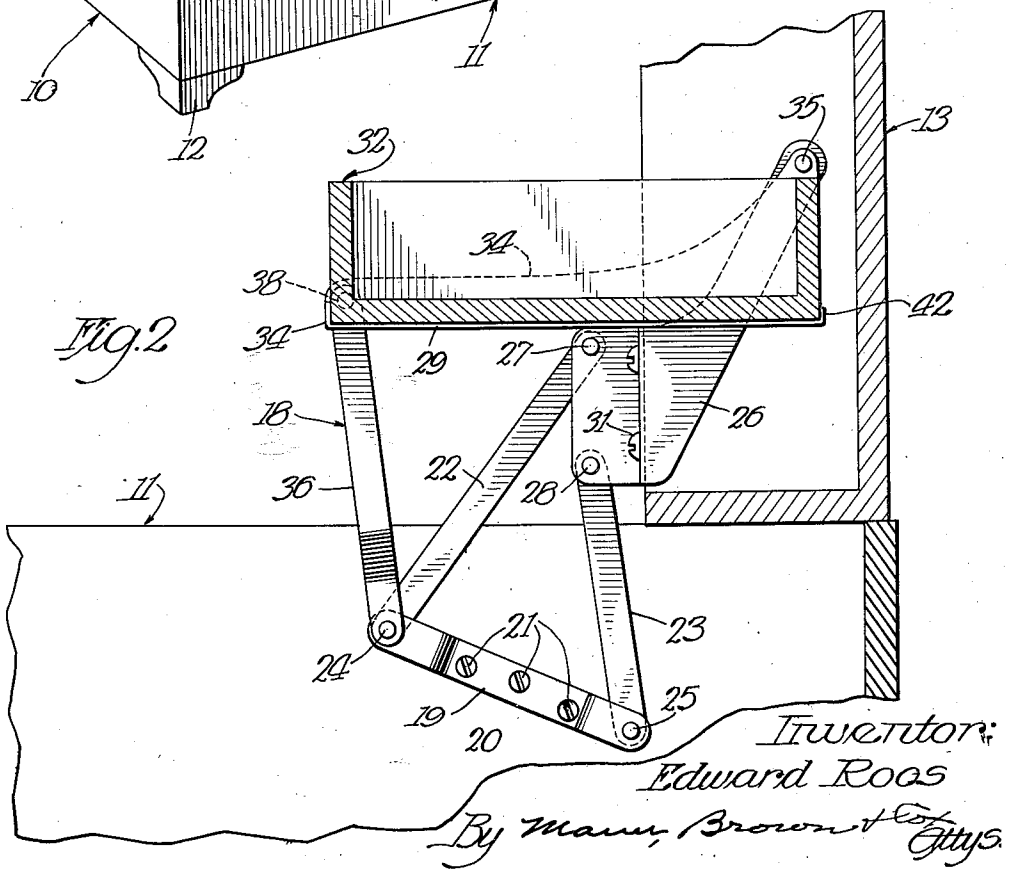


Fig. 2

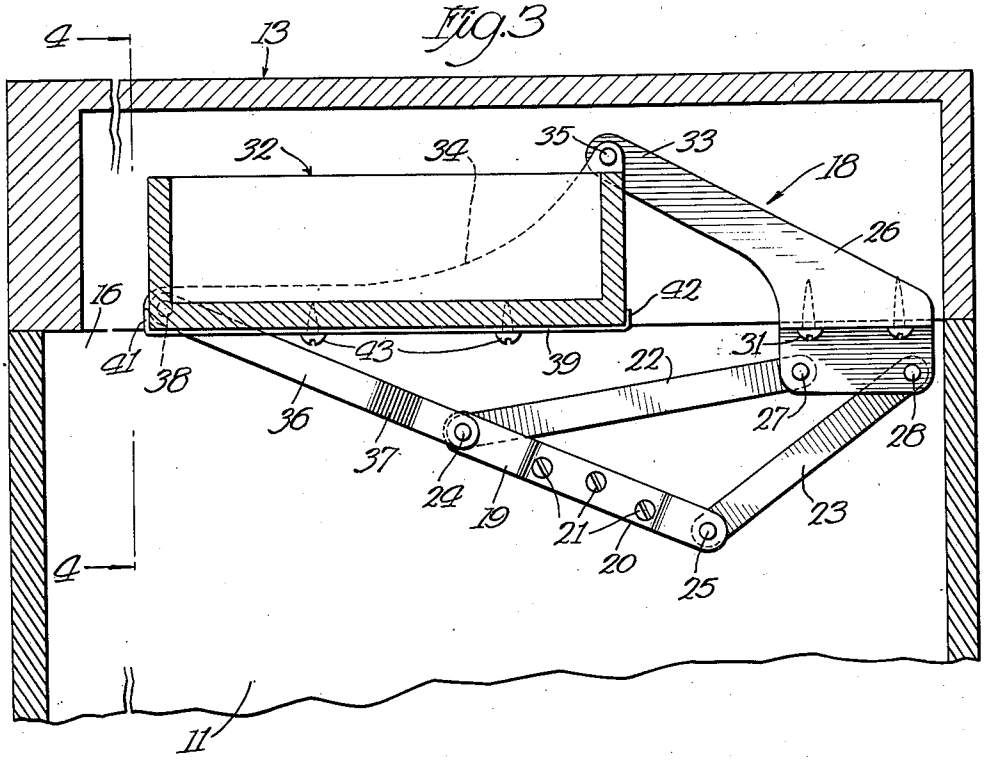
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Fig. 3



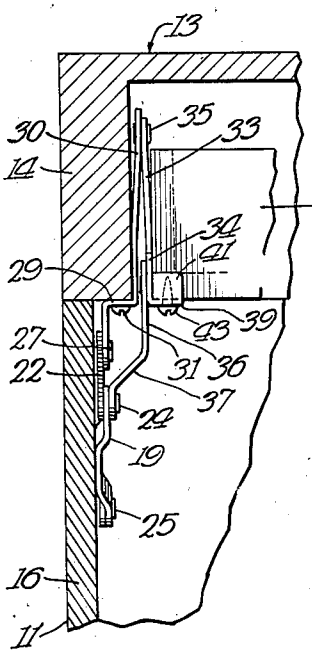


Fig. 4

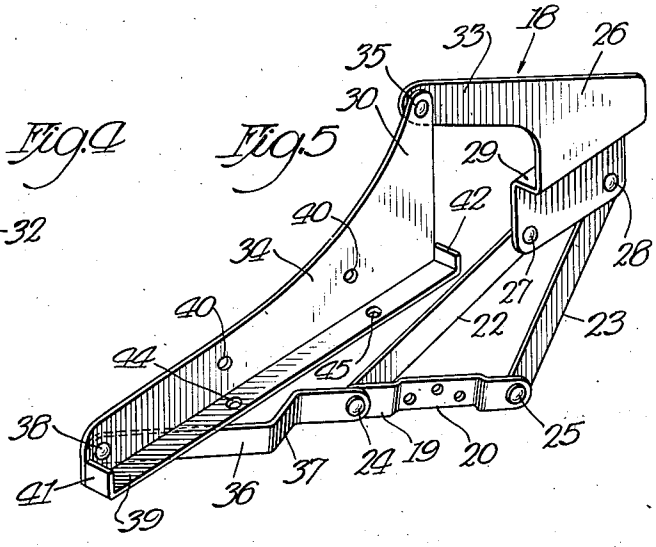


Fig. 5

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UNITED STATES PATENT OFFICE

2,276,419

CHEST

Edward Roos, River Forest, Ill.

Application September 20, 1939, Serial No. 295,805

8 Claims. (Cl. 312—174)

This invention relates to clothes chests and more particularly to a combined hinge and tray therefor.

The principal object of the invention is the provision of a new and improved chest having a hinge that will move the closure or lid forwardly when the same is opened and that is provided with a tray that is supported in an elevated position while the lid is in elevated position.

A further object of the invention is the provision of a new and improved combined hinge and tray support that is inexpensive to manufacture, easily and readily applied, efficient in operation and that is not likely to become broken or get out of order.

Other and further objects and advantages of the invention will appear from the following description, taken in connection with the accompanying drawings, in which—

Fig. 1 is a perspective view of the chest with the closure in open position and the invention in position therein;

Fig. 2 is a transverse vertical section of the chest showing the lid and tray in elevated position;

Fig. 3 is a view similar to Fig. 2 but showing the closure in lowered position and the tray in its normal lowered position;

Fig. 4 is a section on the line 4—4 of Fig. 3; and

Fig. 5 is a perspective view of the combined hinge and tray supporting mechanism.

In cedar and other chests, it is desirable that the closure or the hinge mechanism for the closure be provided with a tray for supporting small articles and the like. It is common practice to provide removable trays with chests but these trays are usually supported on the lower or compartment portion or section of the chest and hence must often be removed to have access to the lower compartment. In some instances, as where the usual hinge is employed to connect the closure to the compartment, a tray is employed that has no connection to the hinge proper and consequently the additional expense for connecting the tray operating mechanism to the closure and compartment renders such an arrangement commercially impractical.

The present invention seeks to remedy these difficulties by the provision of a simple means for mounting the tray support entirely on the hinge mechanism so that the tray supported thereby will be substantially horizontal in all positions of the closure. This hinge mechanism and tray support constitute a construction that may be assembled and applied to the chest as a unitary structure.

Referring now to the drawings, the reference character 10 designates generally the chest which comprises a lower section or compartment 11 which may, if desired, be supported by the usual feet or legs 12, as clearly shown in Fig. 1 of the drawings. The compartment 11 is provided with a closure 13 which has its end walls 14 and 15 of thicker material than the end walls 16 and 17 of the compartment 11, as shown more clearly in Figs. 1 and 4 of the drawings.

Suitable means are provided for connecting the closure 13 to the lower receptacle or compartment 11. This means comprises a hinged mechanism 18 at each end of the chest and this mechanism is so constructed that during the opening movement of the closure 13, the same is moved forwardly so that the chest may be opened even though its back wall be against the wall of a room or building. This mechanism, except for the tray support, is somewhat similar to that disclosed in the patent to Ziegler, No. 2,131,576, September 27, 1938.

This mechanism comprises a pivot bar 19 having an outwardly offset portion 20 which is rigidly attached to the inner side of each end of the compartment 11 as by means of screws 21, Fig. 2. The ends of the hinge bar 19 are offset inwardly and have attached thereto a long link 22 and a short link 23 as by means of the pivots 24 and 25. The upper ends of the links 22 and 23 are each connected to a hinge plate 26 as by means of the pivots 27 and 28 which are connected to the side edges of the hinge plate 26 at its lower end. The hinge plate 26 has its upper portion offset inwardly to form a tray supporting and attaching ledge 29 as shown more clearly in Fig. 4 of the drawings. The lower edge of the end wall 16 of the closure rests on the offset 29 and is rigidly secured thereto as by means of the screws 31.

Appropriate means are provided for supporting a tray 32 on the hinge mechanism in such a manner that the tray will be held in substantially horizontal position during the opening and closing of the closure 13. As shown, the hinge plate 26 is provided with an upwardly and forwardly extending arm 33 to which the upwardly extending projection 30 of a tray supporting plate 34 is pivotally connected as at 35. The forward end of the plate 34 is pivotally connected to a tray supporting link 36 which in turn is rotatably mounted on the pivot 24, Figs. 2

and 5. The link **36** is provided with an inwardly offset **37**, corresponding to the offset **29**, in order that the outer end of the link may be pivotally connected to the forward end of the tray supporting plate **34** as at **38**, Figs. 2 and 5.

The tray supporting plate **34** is provided with an inwardly extending flange **39** on which the tray **32** is adapted to seat. The opposite ends of the flange **39** are provided with upwardly extending projections **41** and **42** between which the tray **32** is adapted to seat. If desired, the tray may be rigidly secured to the supporting flanges **39** but this is not necessary because these supporting flanges are held in substantially horizontal position at all times. If it is desired to secure the tray to the flanges **39**, this may be done by means of screws **43** extending through the openings **44** and **45** in the flange, Figs. 3 and 5, or through openings **40** in the plate **34** and into the tray.

The combined hinge and tray supporting mechanism may be constructed as a unitary structure as shown in Fig. 5 so that the same may be applied to the compartment and the closure with a minimum amount of time and expense.

It is thought from the foregoing, taken in connection with the accompanying drawings, that the construction and operation of my device will be apparent to those skilled in the art and that changes in size, shape, proportion and detail may be made without departing from the spirit and scope of the appended claims.

I claim as my invention:

1. A chest comprising a compartment, a closure for said compartment, said closure having a recess therein, a hinge mechanism for connecting said closure to said compartment, said mechanism comprising a hinge plate rigidly connected to said closure and extending rigidly upwardly into said recess, means, including a plurality of hinges at each side of said compartment, cooperating with said hinge plate for causing said closure to move forwardly while the same is being opened, and a tray loosely mounted on, supported by, and movable with, said mechanism.

2. A combined hinge and tray supporting unit comprising an attaching plate for attachment to a chest compartment, a hinge plate for attachment to a closure for said compartment, a pair of links for pivotally connecting said plates together, an extension on said hinge plate, a tray supporting plate pivotally connected to said extension, a link member pivotally connected to said tray supporting plate and to said attaching plate, and a tray movably mounted on said tray supporting plate.

3. A combined hinge and tray supporting unit comprising an attaching plate for attachment to a chest compartment, a hinge plate for attachment to a closure for said compartment, a pair of links for pivotally connecting said plates together, an extension on said hinge plate, a tray supporting plate pivotally connected to said extension, a link member pivotally connected to said tray supporting plate and to said attaching plate, said tray supporting plate being provided with an inwardly extending flange having upturned projections thereon for positioning and supporting a tray thereon.

4. A combined hinge and tray supporting unit comprising a hinge plate having an arm extending upwardly therefrom, an attaching plate, a pair of link members pivotally connected to said plates, a tray pivotally connected to said arm, a third link pivotally connected to said tray and to said attaching plate.

5. A combined hinge and tray supporting unit comprising a hinge plate having a body portion provided with a closure attaching offset, an arm extending upwardly and forwardly, an attaching plate adapted to be attached to a receptacle, a pair of links for movably connecting said hinge plate to said attaching plate, a tray supporting plate pivotally connected to the upper end of said arm, and a link pivotally connected to the forward ends of said tray supporting and attaching plates.

6. In a chest, a receptacle, a closure for said receptacle, said closure having a recess therein, means including a hinge plate rigidly secured to said closure and extending into said recess, an attaching plate connected to said receptacle, links, pivotally connected to said plates, for movably connecting said closure to said receptacle and for causing the closure to move forwardly of the plane of the rear wall of the receptacle when the closure is moved to open position, a tray, and means including a link for mounting said tray on said first-named means so that said tray will remain upright during the opening and closing of said closure and will be moved rearwardly into a position partially within said closure when said closure is moved to open position.

7. In a cedar chest, a receptacle, a closure therefor, closure mechanism including links for pivotally connecting said closure to said receptacle whereby in opening said closure said mechanism will move the closure forwardly whereby the same during the opening thereof will not be projected rearwardly beyond the plane of the outer surface of the rear wall of said receptacle, said mechanism including said links being so constructed and arranged that when in fully open position, said closure will seat on the rear wall of said receptacle, a tray, and means mounted on said mechanism for supporting said tray and for elevating the same above said chest with its rear portion within said closure when said closure is opened.

8. As an article of manufacture, a combined hinge and tray supporting unit comprising an attaching plate for attachment to a chest compartment, a hinge plate provided with an offset portion, the connecting part of the offset portion having openings for receiving fastening members for attaching said hinge plate to the inner edges of a closure for said compartment, a pair of links for pivotally connecting said plates together, an extension constituting the offset portion of said hinge plate, a tray supporting plate pivotally connected at one end to the outer end of said extension, and a link member pivotally connected to the opposite end of said tray supporting plate and to the adjacent end of said attaching plate.

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