Oct. 20, 1936. C. F. MINK 2,058,341

HINGE FOR RECESSED DOORS

Filed Feb. 4, 1935

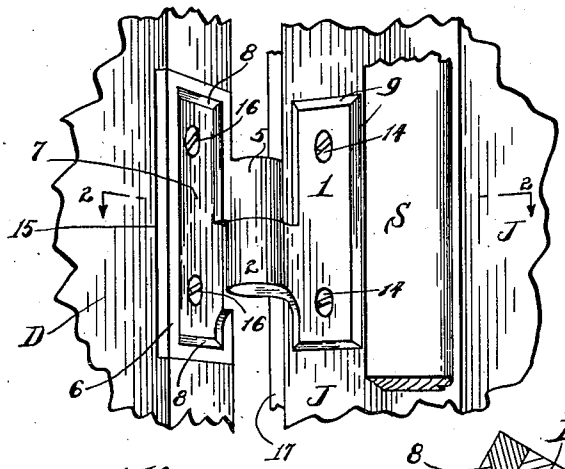


Fig. 1.

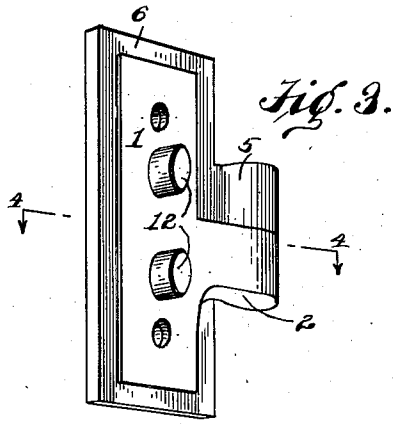


Fig. 3.

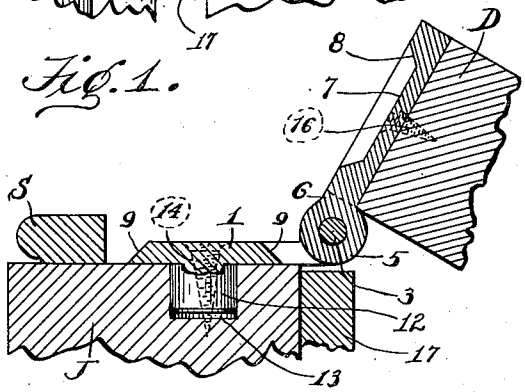


Fig. 2.

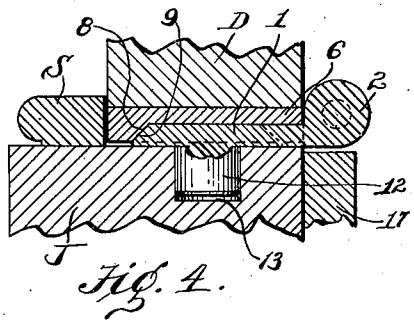


Fig. 4.

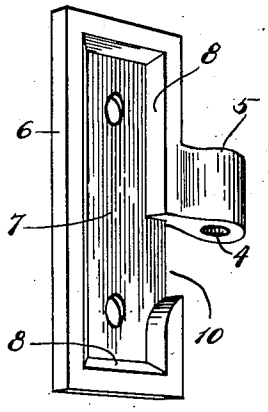


Fig. 5.

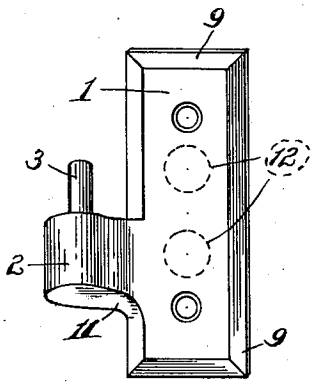


Fig. 6.

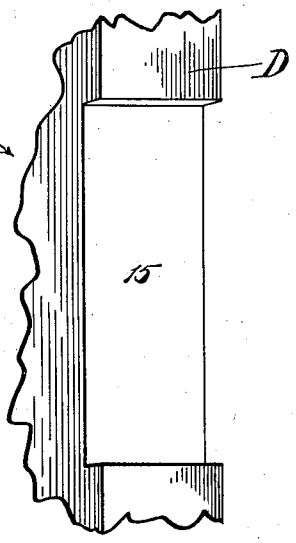


Fig. 7.

INVENTOR

Charles F. Mink.

Patented Oct. 20, 1936

2,058,341

UNITED STATES PATENT OFFICE

2,058,341

HINGE FOR RECESSED DOORS

Charles F. Mink, Larchmont, N. Y.

Application February 4, 1935, Serial No. 4,799

1 Claim. (Cl. 16—128)

This invention relates to improvements in door butts and has particular reference to a type of butt applicable to recessed doors.

When applying the ordinary or common type of butt heretofore generally used for hanging recessed doors, considerable time and labor is involved in cutting and fitting same to the door and jamb.

One of the objects of this invention is to provide a butt, by the employment of which, the time and labor for fitting and hanging the door is considerably reduced thereby materially reducing the cost of this procedure.

A further object is to provide a butt of the character described, wherein means are provided to take the carrying strain off the holding screws or fastening means.

Another object is to provide a butt of the character described wherein one wing of the butt is depressed to allow the complementary wing to seat itself, almost entirely therein, thus attaining compactness when folded and permitting the necessary clearance for the door within the jamb.

Another object is to provide a butt as described which is applicable to either wooden or steel doors and jambs.

Another object of this invention is to provide a butt of the character described by the use of which in steel doors and jambs, the reinforcement commonly employed on the jamb may be eliminated and the jamb wing may be welded to the jamb, at the point of fabrication.

A still further object is to provide a butt as described which is simple, neat and architectural in appearance, and is economical in cost of manufacture.

Another object is to provide a device of the character described wherein the pin carrying ears or lugs are off-set so that they clear the door trim, thereby eliminating cutting said door trim to provide clearance.

The objects above set forth as well as other objects hereafter disclosed are attained by means of the butt illustrated in the accompanying drawing, which forms a part of this application and in which Figure 1 is a perspective view showing the butt attached to a door and jamb and shows the door in opened position and fragmentary parts of said door and jamb.

Figure 2 is a sectional plan view taken approximately on line 2—2 of Figure 1.

Figure 3 is a perspective view of the butt, showing the jamb wing closed against and recessed in the door wing of the butt.

Figure 4 is a sectional plan view approximately on line 4—4 of Figure 3.

Figure 5 is a perspective view of the door wing of the butt.

Figure 6 is a perspective view of the jamb wing, and

Figure 7 is a view, in perspective, of the edge of a door rabbeted or notched to receive the said door wing of the butt.

Referring more particularly to the parts, 1 designates a plate or wing adapted to be secured to a door-jamb J, heretofore, and hereinafter referred to as the jamb-wing. The said jamb-wing is formed with an off-set ear or lug 2 in which a pin 3 is fixed, and the said pin is adapted to engage in the bore 4 in a complementary ear or lug 5 formed upon a plate 6, heretofore and hereinafter termed the door-wing.

The said lugs are off-set or formed with respect to the said jamb-wing so that the outer periphery of said ears are tangential to the outer or jamb contacting surface of the jamb-wing as clearly shown in Figures 2, 3, and 4. The purpose of said off-set is to avoid contact with a finishing mould or trim 17, thus eliminating any cutting of said trim to provide clearance.

The said door-wing is countersunk or depressed at 7 and the side walls of said recess are beveled as at 8. This depressed portion permits the aforesaid jamb-wing, which has beveled edges 9, to nest therein when the two wings are in closed position, as clearly shown in Figures 3 and 4.

The wall of the depression in the said door-wing is partly cut away as at 10 to permit the passage of the neck 11 of the ear 2 when the two wings are folded together.

Lugs or dowels 12, are formed upon the jamb-wing and are adapted to engage in recesses 13 which are formed in the door jamb J and act to relieve the attachment screws 14 of any strain or pressure caused by the weight of the door.

The end of the door D is notched or rabbeted as at 15 to receive the door-wing which is attached to the door by means of attachment screws 16. The said rabbet functions to relieve the screws 16 of any strain or pressure from the weight of the door when the parts are assembled.

The rabbet 15, upon door, is cut the depth equal to the thickness of the edge of the door-wing so that the outer face of said door-wing lies flush with the surface of the edge of the door, and to allow sufficient clearance for the door in the jamb, the jamb-wing is made slightly thicker than the depth of the recess 7 in the door-wing, as clearly shown in Figure 4.

A regulation beaded strip or moulding S is attached to the jamb and functions as a rabbet or stop against which the door closes.

While the drawing shows means for attaching the butt to a wooden door and jamb, it is obvious that this type of butt may be attached to metal doors by merely substituting machine screws for the wood screws shown and tapping or threading the screw openings in the door.

It will be noted that no field work is necessary to prepare the jamb and very little to prepare the door for attaching the butt; in the case of wooden structure, it being required only to bore the holes in the jamb for the dowels and in the door to cut the rabbet.

It will be further noted, as hereinbefore stated that in the instance of metal doors, one wing of the hinge may be welded upon the door jamb thus further reducing the field work when setting the door.

It is also obvious that the pivoting pin **3** may be dependent from the lug **5** on the door-wing and the recess for the pin may be formed upon the lug **2** of the jamb-wing.

Various other modifications may be employed without departing from the spirit of this invention and it is therefore not intended to limit same to the particular embodiments shown and mentioned.

What is claimed is:

The combination in a hinge for vertically hung doors, of a rectangular door wing adapted to seat in a rectangular rabbet formed upon the edge of the door, and a rectangular jamb wing adapted to be attached to a door jamb, said door wing being formed with a rectangular depression into which the said jamb wing is adapted to nest when the door is closed and the wings fold together, the rectangular depression in the door wing and the rectangular jamb wing having complementary beveled edges, an off-set ear on said jamb wing, said door wing having a complementary off-set ear adapted to align with said first ear when the jamb wing is nested in said rectangular depression, means for detachably connecting said ears for pivotal and vertical relatively shiftable movement between the door wing and the jamb wing, and to effect a centering action when the door wing and jamb wing are folded together and jamb wing is nested in the rectangular bevel-edged recess in the door wing.

CHARLES F. MINK.