Sept. 15, 1942. J. P. DOMAN 2,295,638

HINGE

Filed Nov. 29, 1939

Fig. 1.

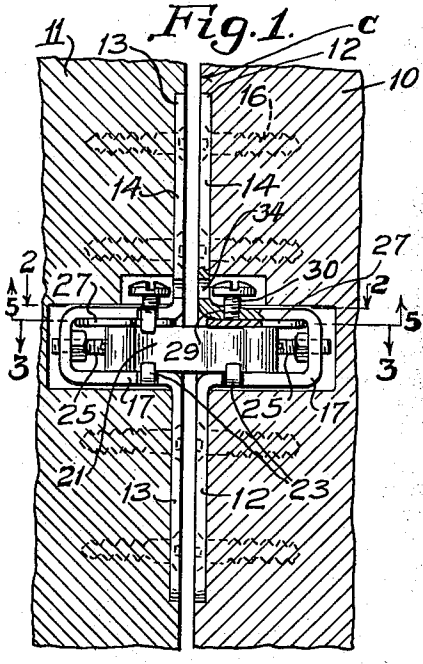


Fig. 2.

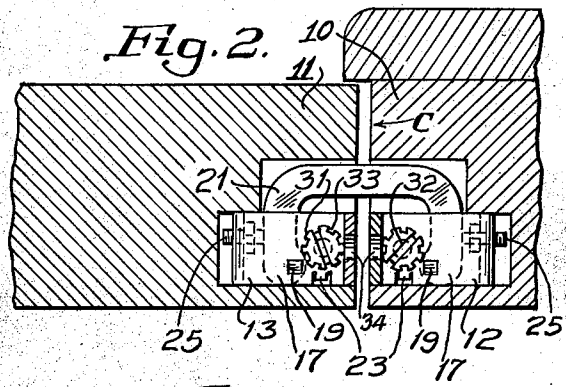


Fig. 3.

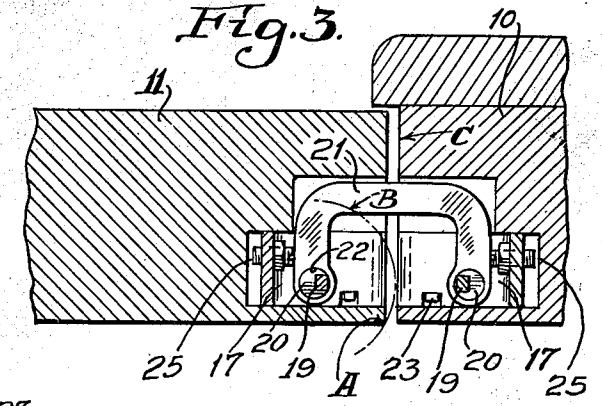


Fig. 5.

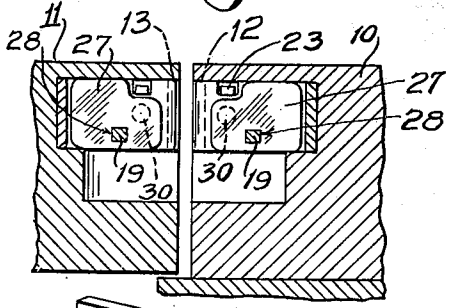


Fig. 4.

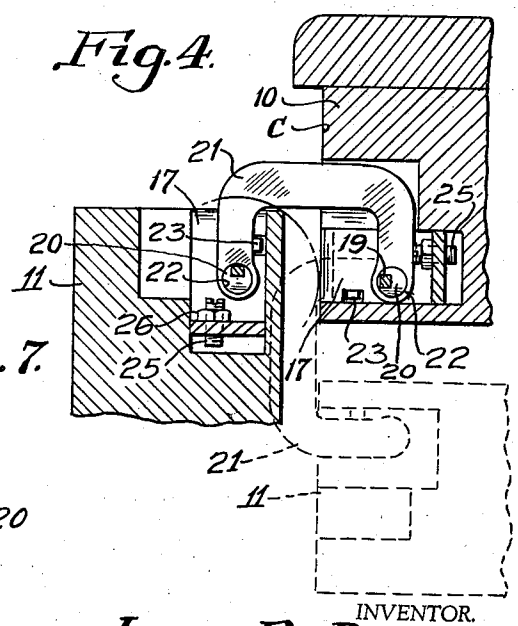


Fig. 6.

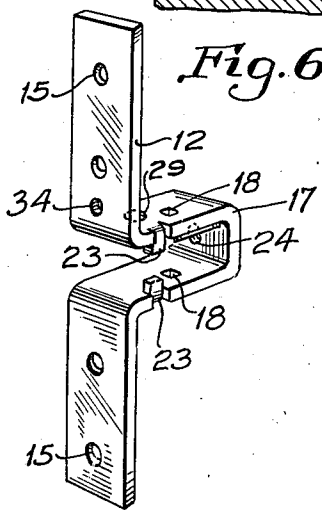
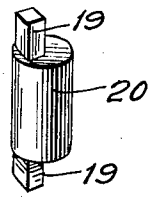


Fig. 7.



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Patented Sept. 15, 1942 2,295,638

UNITED STATES PATENT OFFICE

2,295,638

HINGE

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Application November 29, 1939, Serial No. 306,663

2 Claims. (Cl. 16—164)

This invention relates to hinges and more particularly to hinges for use on doors and the like.

This application is a continuation in part of my prior application for Hinges, filed July 25, 1939, Serial No. 286,382.

An object of the invention is to provide a simple, practical and inexpensive article of the character described.

Another object is to provide a hinge for doors and the like whereby the door may be swung through a full arc of 180 degrees.

A further object is to provide a hinge as described which is completely concealed in closed position.

An additional object is to provide a hinge as described having an adjustable stop.

A further object is to provide a hinge having means for holding the door open in any position.

Other objects and advantages will appear and be brought out more fully in the following specification, reference being had to the accompanying drawing, wherein:

Fig. 1 is an elevation view of a hinge embodying my invention as seen in position in a door and jamb;

Fig. 2 is a sectional view taken along the line 2—2 of Fig. 1;

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 1;

Fig. 4 is a view similar to Fig. 3 showing the door in open position;

Fig. 5 is a sectional view taken along the line 5—5 of Fig. 1;

Fig. 6 is a perspective view of one of the hinge members; and

Fig. 7 is a perspective view of one of the bearing members.

Referring more particularly to the drawing, I show a door jamb 10 and door 11 each of which is suitably recessed to receive a hinge part. A hinge bracket 12 is secured in the jamb recess as by countersunk screws according to the usual manner, and a similar bracket 13 is secured in the door recess. The brackets 12 and 13 are identical except for certain parts which are positioned on opposite sides thereof as will be manifest hereinafter. Brackets 12 and 13 have flange portions 14 provided with countersunk screw holes 15 for mounting screws 16 and each bracket has a U-shaped portion 17, the side portions of which are provided with square apertures 18 which receive the squared end portions 19 of a bearing pin 20. Apertures 18 are nearer one edge of portions 17 than the other. Portions 19 are eccentric with respect to pin 20 for a purpose which will be more fully explained hereinbelow.

A substantially U-shaped link 21 is provided with bearing bores 22 adjacent the ends thereof for mounting on bearing pins 20. U portions 17 are each provided with a pair of stop lugs 23 which limit the movement of the door as may be seen in Fig. 4. Members 12 and 13 are each provided with a threaded bore 24 in which is positioned a threaded stop screw 25 which may be provided with a lock nut 26. Stop screws 25 are adapted to engage the side portion of member 21 for limiting the position of the same in the closed position of the door.

Members 12 and 13 are each provided with a plate 27 positioned between member 21 and the upper part of portion 17 of the brackets. Plates 27 are each provided with a square aperture 28 to permit portions 19 to extend therethrough. Portions 17 are each provided with a threaded bore 29 in which is located a screw 30, the lower end of which presses against plate 27 such that the tightening of screw 30 will force plate 27 against member 21 and serve as a brake for the same.

Screws 30 are preferably provided with flat heads 31 having a screw driver slot 32 in the top thereof, and they are preferably provided with a plurality of peripheral notches 33 by which screws may be adjusted after installation, a hole 34 being formed in each member 12 and 13 to permit a small screw driver to be inserted therethrough and engage notches 33 whereby the screws may be turned.

The operation of the invention should be clear from the foregoing description. With the door in a closed position as shown in Fig. 3, stop screws 25 engage link 21 and determine the limiting position of the link for this closed position of the door. When the door is opened a quarter of a turn as indicated in full in Fig. 4, bracket 13 will have been pivoted 90 degrees carrying with it pin 20 which has been rotated with the center of bore 22 as an axis. Portions 19 of pin 20 will likewise have been rotated and the corner edge A of the door will move in along an arc indicated B which as seen will permit corner A to swing past the face C of the door jamb without interference because of the eccentric position of portions 19. When the door is swung to the full open position, or a swing of 180 degrees as shown by the dotted position in Fig. 4, lugs 23 which engage the inner sides of link 21

will limit the swing of the open position and maintain the door parallel to the jamb 10.

Having described my invention, what I claim is:

1. A hinge as described comprising a pair of bracket members each having a U-shaped portion, a link pivotally mounted at its ends in said U portions of the brackets, one of said brackets having a friction bearing plate between a side portion thereof and said link, and means to adjust the pressure of said plate against said link.

2. A hinge as described comprising a pair of bracket members each having a U-shaped portion, a link pivotally mounted at its ends in said U portions of the brackets, one of said brackets having a friction bearing plate between one of said U portions and said link, and means to adjust the pressure of said plate against said link, said means including a screw in said U portion adjacent said plate provided with a peripherally notched head, said bracket having an aperture adjacent said screw head.

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