

APPLICATION FILED AUG. 20, 1912.

Patented May 27, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

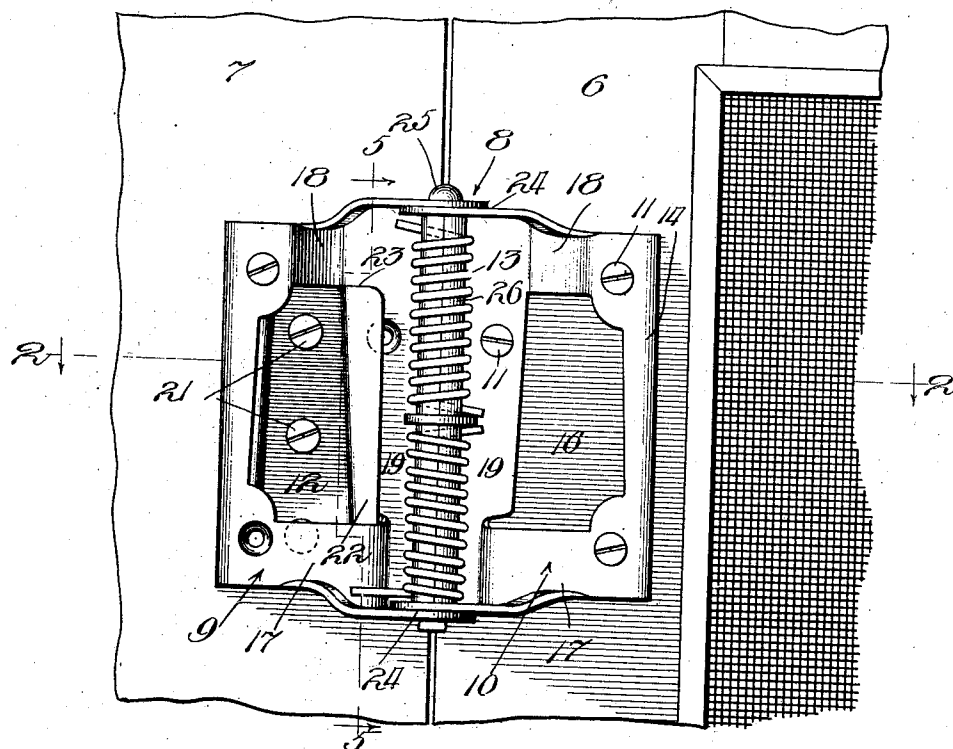
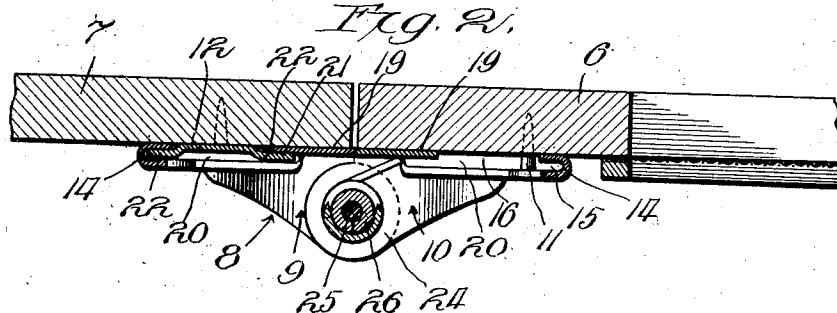


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

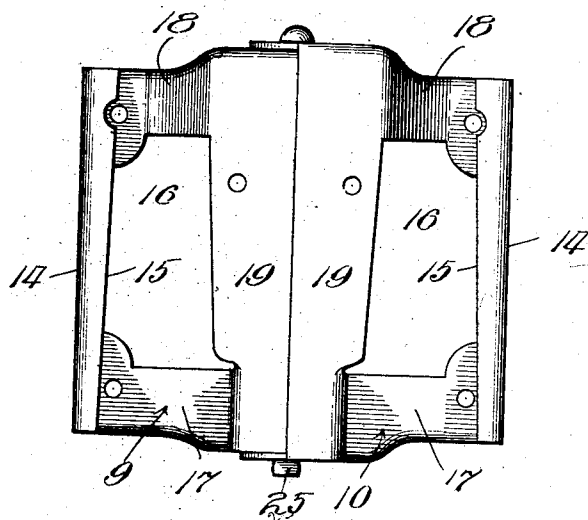


Fig. 4.

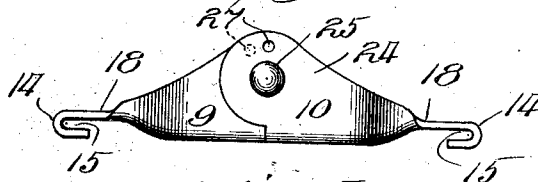
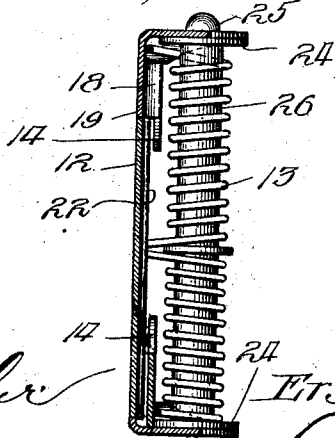


Fig. 5.



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UNITED STATES PATENT OFFICE.

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1,062,976.

Specification of Letters Patent.

Patented May 27, 1913.

Application filed August 20, 1912. Serial No. 716,041.

To all whom it may concern:

Be it known that I, ERSKINE H. JACKSON, a citizen of the United States, residing at 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 specification.

This invention relates to detachable hinge members adapted particularly for use with doors or other swinging devices to which it may be readily attached or removed.

It is sought in the present invention to provide a form of detachable hinge, inexpensive and simple to manufacture, which combines a minimum number of parts in its construction; to so arrange the hinge that the operation of attaching or detaching the same with respect to a fixedly secured member may be facilitated and expedited; and to so construct the hinge generally that it may be as firmly and securely positioned as any other ordinary type of hinge.

The invention further consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawing, Figure 1 is an elevation of the hinge shown as attached for use with a screen door; Fig. 2 is a cross section through the hinge on line 2-2 of Fig. 1, looking in the direction of the arrows; Fig. 3 is a view looking toward the rear or under side of the hinge; Fig. 4 is an end elevation of the hinge; and Fig. 5 is a longitudinal section taken on line 5-5 of Fig. 1, looking in the direction of the arrows.

In a large number of cases, and for many purposes, it is desirable that a door or other swinging device should be attached to a frame or stationary body in such manner that its removal may be readily effected, instances of this being found in storm or screen doors and windows. Usually, screen windows are fastened otherwise than by the use of hinges, since for this purpose it has heretofore been found impractical to employ means which require considerable time and labor in attachment.

In the present invention, there is provided a detachable hinge, one portion of which may be fixedly secured either to a fixed or swinging body, and the other portion of which may be readily attached or detached to a suitably secured socket member.

There is shown in the drawings a screen door 6 secured to a suitable frame 7 through the medium of a detachable hinge 8 consist-

ing essentially of two pivotally connected hinge members 9 and 10. The member 10, as by means of suitable screws or other fastening devices 11, may be fixedly secured to the door, and the hinge member 9 may be attached to the door frame 7 through engagement with a socket member 12, this arrangement being best illustrated in Fig. 1. For the purpose of maintaining the door normally in closed position tension means 13 may be provided upon the detachable hinge substantially in the manner shown.

Each of the hinge members is formed preferably of a single piece of metal bent around and back at its outside edges 14 to provide a channel or groove 15 upon the under side thereof, a portion 16 in the center of the hinge member being cut away to provide an opening therein. By means of end web formations 17 and 18 the outside edge of the hinge is joined with the inside portion 19. The end web formation 17 is raised with respect to the inside portion 19 in such manner as to provide a mouth or opening at one end of the hinge member, while the end web 18 extends obliquely from the inside portion 19 upwardly to the outside edge 14, this oblique arrangement of such web providing in effect a stop member to be hereinafter more fully explained.

A socket member 12 is adapted to be secured either to the door or building frame as by means of suitable screws or other fastening device 21, and is provided with offset tongues 22 arranged to slide through the mouth 20 under the end web 17 and overlie the under wall of the groove 15 and the inside portion 19. The socket, as shown, is preferably tapered slightly from end to end, corresponding with a similar taper of the groove formation 15 and the inside portion 19, the smaller end 22 of the socket member abutting against the obliquely shaped end web 18, by which its longitudinal position within the hinge member is determined.

In the construction shown and described, it should be noted that the inside portion 19 is disposed substantially in the same plane with the under wall of the groove 15, so that these portions may contact evenly any body against which the hinge may be secured. Each of the hinge members may furthermore be so arranged that the inside edges 19 will meet when one member of the hinge has been swung around into alignment with the other, thus serving as a stop

to prevent further swinging movement due to the action of the tension member. The hinge is shown in Fig. 1 as permanently secured to a spring door, and as detachably secured to a socket member fastened upon a stationary body. It is obvious, of course, that this arrangement may be changed around so that the hinge will be fixedly secured to the stationary body and be detachably secured to the socket member which may then be fastened upon a swinging door. When this latter arrangement is adopted it becomes necessary to invert the position of the hinge so that the web 18 becomes the lower edge of the hinge, the socket member then being fitted into the hinge by a downward sliding movement. If, for any reason, it should be desired that the hinge when attached, as shown in Fig. 1, should be further secured to prevent accidental detachment from the socket member, a single screw may be utilized, as shown, thus serving merely to prevent displacement; due to continual usage, but it is obvious that the use of such means is unnecessary and is wholly precautionary. The obliquely extending web 18 serves as a positive stop to determine the correct position of the hinge when secured upon the socket member.

It is to be noted that the hinge of my invention may be formed with the use of a die, and all the parts stamped or bent with one operation. The bearings 24, in which a pintle 25 is journaled, are formed by turning up end portions of the hinge members and are arranged to overlap to a considerable extent, thereby providing a strong construction.

In order to prevent warping or distortion of the tension means a sleeve 26 surrounds the pintle and is disposed within the tension means, here shown as a coiled spring. At the bearings located at one end of the device holes 27 are provided adapted to register when the hinge members are slightly swung toward each other to permit

the insertion therethrough of a pin or nail to lock the hinge members in such relation against the action of the tension means. This locking arrangement may be utilized when the hinge is being attached to the socket member to hold the same in a convenient position for attachment.

I claim:

1. A hinge composed of two pivotally connected members, each formed of a single piece of metal bent around and back near its outside edge to provide a groove on the underside thereof, and formed in its central portion with an opening bounded on the outside by the walls of the aforesaid groove and on the inside by an under-set edge of the hinge member disposed substantially in the same plane with the under wall of the aforesaid groove, in combination with a socket member provided with offset tongues adapted to overlies the under wall of the aforesaid groove and the under-set edge of the hinge member to lock therewith, substantially as described.

2. A hinge composed of two pivotally connected members, each formed of a single piece of metal bent around and back near its outside edge to provide a groove on the underside thereof, and formed in its central portion with an opening bounded on the outside by the walls of the aforesaid groove, on the inside by an under-set edge of the hinge member disposed substantially in the same plane with the under wall of the aforesaid groove, and at one of its ends by a web extending transversely and obliquely between the aforesaid outside and under-set inside edges, in combination with a socket member provided with offset tongues adapted to overlies the under wall of the aforesaid groove and the under-set edge of the hinge member to lock therewith, substantially as described.

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