B. C. ROCKWELL.

HINGE.

APPLICATION FILED SEPT. 26, 1918.

1,315,418. Patented Sept. 9, 1919.

Fig. 1

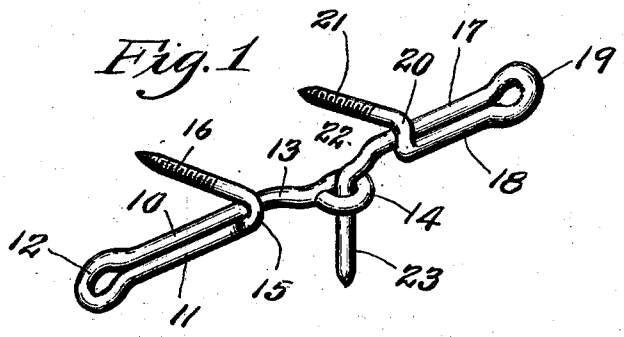


Fig. 2

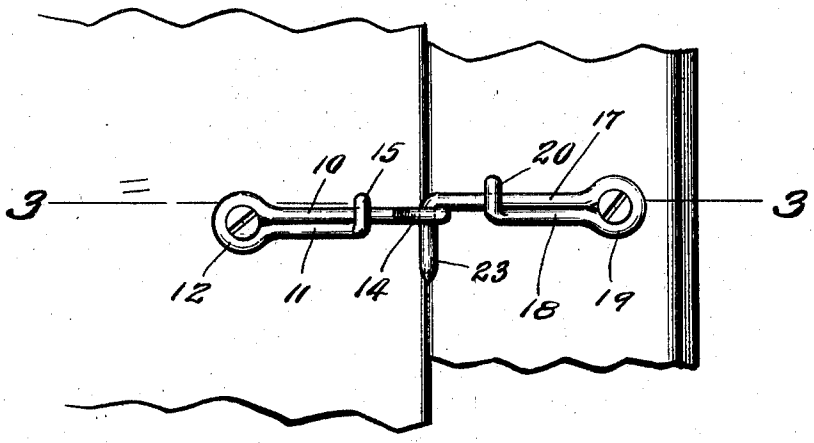
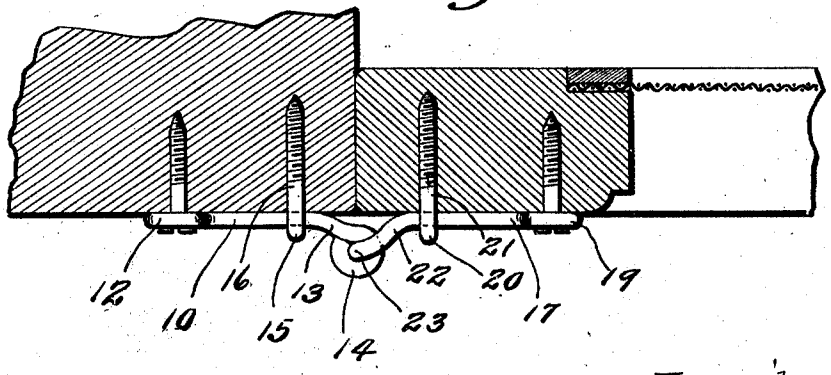


Fig. 3



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UNITED STATES PATENT OFFICE.

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HINGE.

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Application filed September 26, 1918. Serial No. 255,756.

To all whom it may concern:

Be it known that I, BYRD C. ROCKWELL, a citizen of the United States, residing at Camden, Arkansas, have invented a certain new and useful Improvement in Hinges, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to hinges for supporting swinging structures, such as doors, windows, gates, frames, panels, and the like, the principal object of my invention being to provide a relatively simple and efficient hinge which, by virtue of the material used, can be easily and cheaply manufactured.

Further objects of my invention are to construct a hinge which will require a minimum number of attaching devices such as screws; to provide a hinge which is constructed so as to permit the supported swinging structure to be readily removed from its supporting post or frame, and, further, to provide a hinge which is particularly adapted for use upon swinging structures which are arranged with their outer faces flush with the outer face of the casing post or supporting framework.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts, hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a hinge of my improved construction.

Fig. 2 is an elevational view of a portion of a screen door or window and a part of the frame or casing to which said door or window is applied and showing a hinge of my improved construction in position for use upon said parts.

Fig. 3 is a horizontal section taken approximately on the line 3—3 of Fig. 2.

By referring to the drawings which illustrate a practical embodiment of my invention, it will be seen that the supporting or bearing member of my improved hinge and which is applied to the casing post or other relatively fixed structure, is composed of a single length of wire which is bent double to form substantially parallel legs 10 and 11, and the central portion of said section of wire being bent to form a small loop or eye 12 which is adapted to receive a fastening device such as a screw. The end of leg 10 opposite the end which unites with the loop or eye 12 is bent slightly forward as designated by 13 and the end of the section of wire beyond this forward bend is bent into a horizontally disposed loop or eye 14 which serves as a bearing for the pintle on the opposite member of the hinge.

The section of wire at the inner end of leg 11 or the end opposite the end which unites with the loop 12 is bent upwardly and thence rearwardly as designated by 15, thereby forming a bearing for that portion of the leg 10 which joins the forward bend 13 and from this bearing 15 the terminal portion of the section of wire is extended rearwardly in a plane substantially at right angles to that occupied by the legs 10 and 11, thereby forming a prong 16 which is seated in the casing or supporting structure. This prong may be threaded so as to be screw-seated in the supporting structure or it may be left plain, in which instance it is driven into the supporting structure or inserted in an aperture formed therein.

The companion member of the hinge or that member which is applied to the swinging structure is practically identical in construction with the hinge member just described inasmuch as said companion member is formed in a single section of wire, the same being bent to form substantially parallel legs 17 and 18, a loop or eye 19, an upward and rearward bend 20 from the inner end of leg 18 over the inner end of leg 17, and the rearwardly projecting prong 21 which may be plain or threaded as desired.

The inner end of leg 17 is bent slightly forward as designated by 22 and the terminal portion of the section of wire beyond this forward bend is bent into a substantially vertical frame to form a pintle 23 which, when the parts of the hinge are assembled, occupies bearing loop 14.

The parts of my improved hinge are applied for use by driving or screwing the prongs 16 and 21 into the casing and swinging structure respectively, and by driving screws or like fastening devices through the loops 12 and 19. Obviously, two or more of the hinges thus constructed are required for each swinging structure, such as a door or window, and when the pintles 23 are positioned in the bearing loops 14, the swinging structure is supported so as to swing.

freely from one position to another and when occupying a closed position, the outer face of the swinging structure is flush with the outer face of the casing post or other support. The hinge members being constructed of wire or the like can be easily and cheaply manufactured and the cost of marketing the hinges is further minimized by virtue of the fact that but a single screw or like fastening device is required for each hinge member. Obviously, the hinges can be made in different sizes to suit various requirements, the requisite strength of the hinge members being gained through the use of wire or wire rods of proper size which are used in the manufacture of said hinges.

Hinges of my improved construction can be very cheaply produced, can be readily applied for use and can be advantageously employed in connection with screen doors, storm doors, windows and gates, or in structure swinging upon a vertical axis and particularly a structure having its outer face substantially flush with the outer face of the casing or supporting framework.

It will be readily understood that minor changes in the size, form and construction of the various parts of my improved hinge may be made and substituted for those herein shown and described, without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim:

1. In a hinge of the class described, a member constructed from a section of wire which is bent near its center to form a loop adapted to receive a fastening device, the section of wire being extended from said loop to form a pair of substantially parallel legs, one of which is positioned immediately above the other, the end portion of the upper one of said legs being bent downwardly to form a vertically disposed pintle, and the end portion of the lower leg being bent upwardly over the upper leg and thence outwardly at right angles to the plane occupied by the legs to form an attaching prong.

2. In a hinge of the class described, a member constructed from a section of wire which is bent near its center to form a loop adapted to receive a fastening device, the section of wire being extended from said loop to form a pair of substantially parallel legs, one of which is positioned immediately above the other, the end of the upper one of said legs terminating in a horizontally disposed eye, and the end portion of the lower leg being bent upwardly over the upper leg and extended outwardly at right angles to the plane occupied by both legs to form an attaching prong.

3. A hinge comprising a pair of members, each formed from a section of wire, one of which is bent near its center to form a loop adapted to receive an attaching member, the section of wire being extended from said loop to form a pair of substantially parallel legs, the end portion of one of which is bent downwardly to form a vertically disposed pintle, the end portion of the other leg being bent at right angles to the plane occupied by both legs to form an attaching prong, the section of wire forming the other member being bent near its center to form a loop adapted to receive an attaching member, said last mentioned section of wire being extended from said loop to form a pair of substantially parallel legs, the end portion of one of which is bent to form a horizontally disposed eye adapted to receive the pintle of the opposite hinge member, and the end portion of the other leg of the second mentioned hinge member being extended at right angles to the plane occupied by the leg to which it is attached to form an attaching prong.

In testimony whereof I hereunto affix my signature this 20 day of Sept., 1918.

BYRD C. ROCKWELL.

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