W. C. BOSWELL.

HINGE.

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908,941

Patented Jan. 5, 1909.

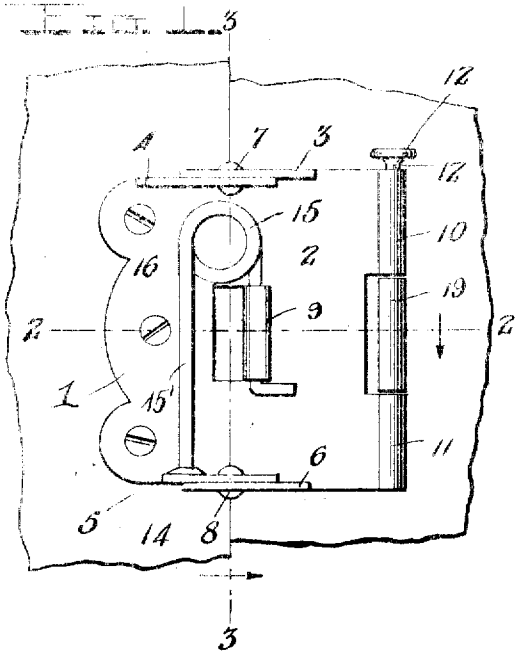


FIG. 1.

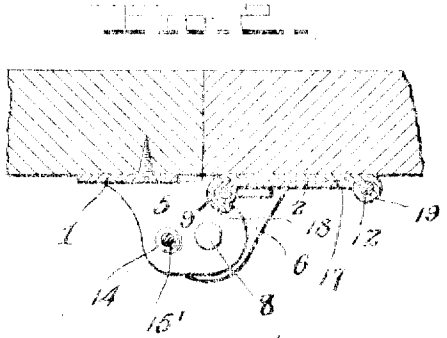


FIG. 2.

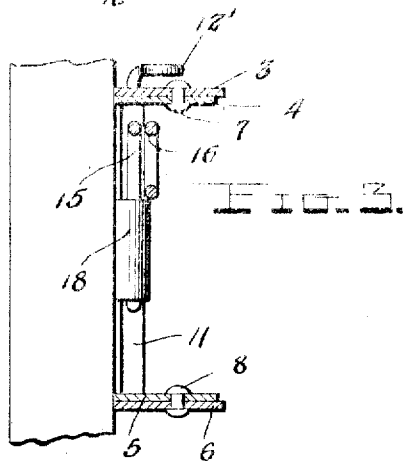


FIG. 3.

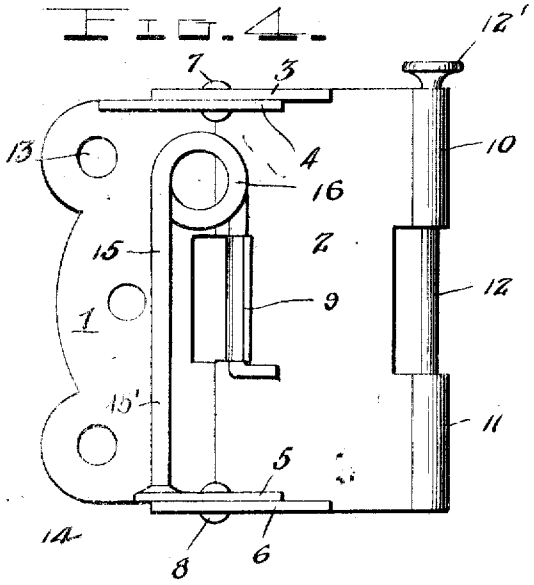


FIG. 4.

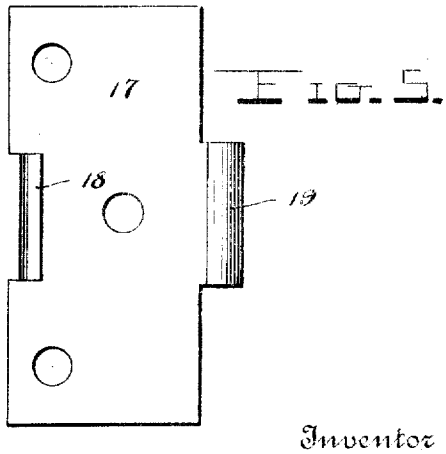


FIG. 5.

Witnesses

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HINGE.

No. 908,941. Specification of Letters Patent. Patented Jan. 5, 1909.

Application filed April 27, 1908. Serial No. 429,505.

To all whom it may concern:

Be it known that I, WILLIAM C. BOSWELL, a citizen of the United States, residing at Rossville, in the county of Walker and State of Georgia, have invented certain new and useful Improvements in Hinges; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in spring hinges and especially to hinges for use on screen and other doors which are removed and replaced at intervals.

The object of the invention is to provide a simply constructed, strong and efficient hinge, one member of which remains in position on the door casing at all times and the other member is carried by the door and designed to remain thereon, said members being provided respectively with coöperating means for detachably connecting them whereby the door may be readily detached from the casing without removing the screws or other fastening device, thereby avoiding the marring of the casing resulting from the insertion and removal of the screws and also saving time and labor required for unscrewing and screwing of the members.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front elevation of a portion of a door and casing with this improved hinge applied and with the door in closed position; Fig. 2 is a transverse section taken on the line 2—2 of Fig. 1 looking downward in the direction of the arrow; Fig. 3 is a vertical section taken on line 3—3 of Fig. 1; Fig. 4 is a front elevation of the hinge leaf adapted to be carried by the door and having means for detachable connection with the casing carried member; Fig. 5 is a similar view of the hinge securing member carried by the door casing.

In the embodiment illustrated, two leaves of the hinge, 1 and 2, are shown preferably composed of sheet metal having their ends bent at right angles to form ears or knuckles 3, 4, 5 and 6 which are pivoted together by means of rivets 7 and 8. The inner edge of the leaf 2 is slit transversely a short distance and the tongue so formed is rolled backward to form a longitudinal socket 9 for a purpose to be described. The outer edge of this leaf 2 has its central portion cut out to form a recess to receive the socket or knuckle of the keeper plate secured to the casing hereinafter to be described and two vertically spaced knuckles or sockets 10 and 11 are formed above and below this recess respectively to receive the pintle 12. The leaf 1 is provided with a plurality of apertures as 13 to receive the fastening screws by means of which it is attached to the door. This leaf 1 is also provided in its knuckle or ear 5 with a recess or socket 14 to receive one end 15′ of a spring 15 having a coil 16 preferably formed intermediately of its ends and with its other end bent in the same direction as the end 15′ and extended through the socket 9 formed at the inner edge of the leaf 2, and the terminal of said end is preferably bent at right angles and is adapted to engage the leaf 2 as shown for exerting the necessary tension thereon.

The leaf 1 is attached to the rear edge of the door with its hinge edge arranged in alinement with the outer edge of the door as shown to permit the opening of said door. A keeper plate 17 is attached to the door casing by screws or other suitable fastening devices in position to be engaged by the leaf 2 as will now be described. This plate 17 is provided at its front edge with a tongue 18 rolled backward to form a hook-like device adapted to engage the rolled back tongue which forms the socket 9 of the leaf 2. At the rear edge of the plate 17 is formed a knuckle 19 disposed opposite the socket member 18 in position to fit in the recess formed between the knuckles 10 and 11 of the leaf 2.

When the parts are assembled, as is shown clearly in Fig. 1, the leaf 2 extending over and completely covering the plate 17 thereby prevents the working out of the fastening screws of said plate 17. The pintle 12 is passed through the registering knuckles 10, 11 and 19 of the members 2 and 17 respectively and is preferably provided at one end with a finger piece 12′ formed by bending said end at an angle to the body portion thereof to provide for the ready insertion and removal of said pintle when it is desired to connect or disconnect the leaf 2 and

the keeper plate 17. When the parts are assembled the shoulders formed on the leaf 2 by cutting out the tongue from which is formed the open knuckle 9 are engaged by the edges of the hook-like device 18 of the plate 17 which holds the door against sagging.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention, as defined in the appended claims.

I claim as my invention:—

1. The combination with two pivotally connected hinge leaves, one of which has a laterally extending device on the inner edge thereof, of a keeper plate having a hook-like device for engagement with said laterally extending device, coöperating knuckles carried by said plate and leaf, respectively, and a removable pintle for connecting them.

2. The combination with two pivotally connected hinge leaves, one of which has a lateral projection arranged thereon, of a keeper plate having a rearwardly curved tongue for engagement with said lateral projection, coöperating knuckles carried by said plate and leaf, respectively, and a removable pintle for connecting them.

3. The combination with two pivotally connected hinge leaves, one of which has a laterally extending longitudinally disposed projection arranged adjacent its hinged edge on one face thereof and provided at its opposite edge with vertically spaced knuckles having a recess arranged between them, of a keeper plate having a knuckle at one edge disposed to fit in the recess between the knuckles of said leaf and aline with said knuckles, a rearwardly curved tongue arranged opposite the knuckle on said plate to engage the longitudinally extending lateral projection of said leaf, and a pintle for insertion in said knuckles.

4. The combination with two pivotally connected hinge leaves, one of which has vertically spaced laterally extending knuckles, transversely extending slits formed therein to provide a tongue, said tongue being rolled backwardly to form a longitudinally extending socket with shoulders at its top and bottom, said leaf being provided at its opposite edge with vertically spaced knuckles arranged in a recess arranged between them, a keeper plate having a knuckle at one edge disposed to fit in the recess between the knuckles, a rearwardly curved tongue arranged on the other edge of said keeper plate to engage the longitudinally extending socket forming device of said leaf, and a pintle for insertion in said knuckles.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM C. BOSWELL.

Witnesses:
GEO. C. STEPHENSON,
D. C. GREESON.