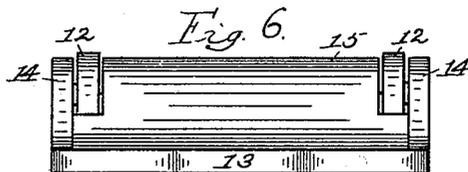
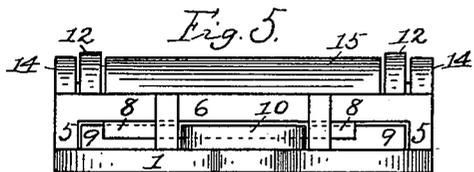
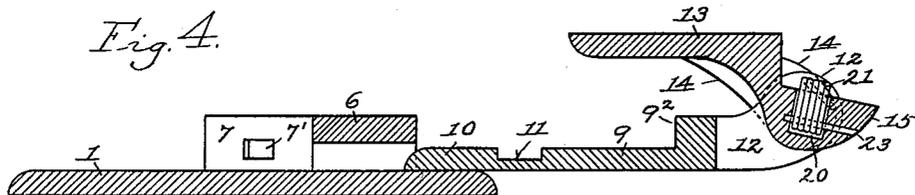
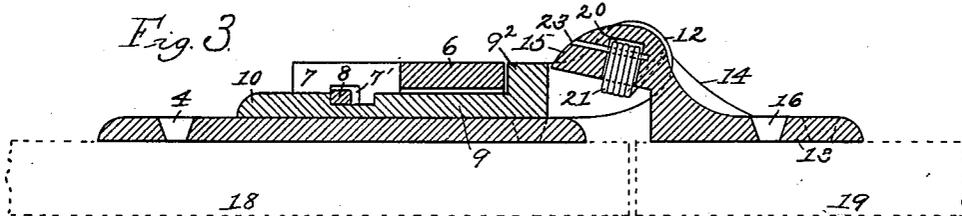
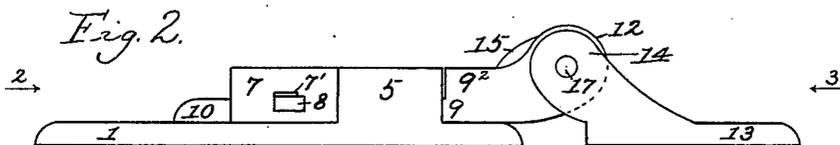
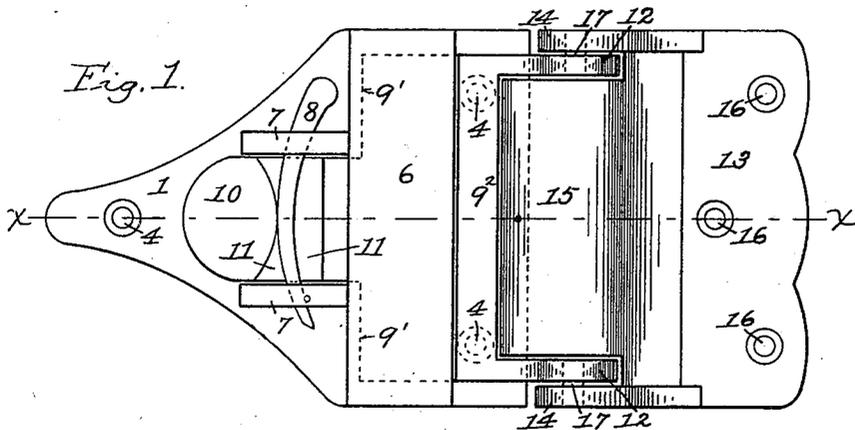


L. N. SHOEMAKER.

HINGE.

(Application filed Mar. 6, 1899.)

(No Model.)



WITNESSES:  
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 ATTORNEY.

# UNITED STATES PATENT OFFICE.

LOCKERT N. SHOEMAKER, OF GREENFIELD, OHIO.

## HINGE.

SPECIFICATION forming part of Letters Patent No. 650,492, dated May 29, 1900.

Application filed March 6, 1899. Serial No. 707,894. (No model.)

*To all whom it may concern:*

Be it known that I, LOCKERT N. SHOEMAKER, a citizen of the United States, residing at Greenfield, in the county of Highland and State of Ohio, have invented certain new and useful Improvements in Hinges, of which the following is a specification, reference being had to the accompanying drawings.

The object of the invention is to provide an improved hinge of the character hereinafter set forth, adapted for use on screen-doors and for similar purposes.

To this end my invention consists in the construction, arrangement, and combination of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a top or plan view of a hinge embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a central vertical section on line *xx* of Fig. 1. Fig. 4 is a central vertical section showing the hinge partly separated and also showing the position of the hinge when the door is opened. Fig. 5 is an end view looking in the direction of the arrow 2 in Fig. 2. Fig. 6 is an end view looking in the direction of the arrow 3 in Fig. 2.

Similar reference-figures represent similar parts in the different views.

In the drawings the numeral 1 represents a securing-plate having screw-holes 4 and being provided with an upright piece 5 at either side and a cross-piece 6 at the upper ends of uprights 5. Adjoining cross-piece 6 and preferably integral therewith and also with plate 1 are the lugs or projections 7, which have holes 7' to receive pin 8. The latter is preferably wedge-shaped and also curved, as shown.

The hinge has the two leaves or plates 9 and 13. Plate 9 has shoulders 9', as represented in dotted lines in Fig. 1, and a tongue or reduced portion 10, with a transverse groove or channel 11. Plate 9 is inserted between plate 1 and cross-piece 6 and between the upright pieces 5 5 and is provided with two lugs or ears 12, which project from a portion 9<sup>2</sup> of the plate which is thickened, so that its upper side is even with the upper side of cross-piece 6, as shown in Fig. 3. Pin 8 extends through holes 7' in lugs or projections 7 and also through groove or channel 11 in tongue 10. Pin 8 is slightly wedge-shaped and engages the shoulder or edge of groove

11 and also the sides of holes 7' 7', so that when pin 8 is driven in position the plate 9 is drawn into position and held firmly, the thickened portion 9<sup>2</sup> of the plate engaging cross-piece 6. A straight pin instead of a wedge-shaped pin may be used; but in that case the portion 9<sup>2</sup> will not be drawn so firmly against the cross-piece 6.

Plate 13 has screw-holes 16 and is provided with two lugs or ears 14 and a hollow semi-circular portion or hood 15. The lugs 14 fit just outside lugs 12, and the pivots 17 pass through lugs 14 and 12, thus forming the pivotal points of the hinge. Plate 1 is secured to the door-cheek 18, and plate 13 is secured to the door 19, the door-cheek and door being represented by dotted lines in Fig. 3.

The curved portion or hood 15, carried by plate 13, has a hollow central block or housing 20. The spring, which is preferably made of spring-wire, consists of a central coil 21, with extended arms which engage lugs 12. Coil 21 is inserted in housing 20 and is held in position by pin 23.

When it is desired to take down the screen-door in the fall of the year or at any other time, it is only necessary to remove pin 8, whereupon plate 9 is set free and may be removed from plate 1, as shown in Fig. 4. The upper and lower hinge on the door should be made the same. Plate 1 remains attached to the door-cheek, while plate 13, with plate 9 pivoted thereto, remains attached to the door.

When it is desired to place the door in position again in the spring of the year or at any other time, it is only necessary to place plate 9 in position and secure it by means of pin 8.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A hinge having a plate adapted to be secured to the door-cheek, said plate having a cross-piece, a plate fitting between said first-named plate and said cross-piece, means for retaining said last-named plate in position between said first-named plate and said cross-piece, and a plate pivoted to said last-named plate and adapted to be secured to the door, substantially as set forth.

2. A hinge having a plate adapted to be secured to the door-cheek, said plate having a cross-piece and lugs or projections with holes

for a pin, a plate having a groove or shoulder and fitting between said first-named plate and said cross-piece, a pin passing through said lugs or projections and engaging said  
5 groove or shoulder, thus securing said plates together, and a plate pivoted to said last-named plate and adapted to be secured to the door, substantially as set forth.

3. A hinge having a plate adapted to be se-  
10 cured to the door-cheek, said plate having a cross-piece and lugs or projections with holes for a pin, a plate fitting between said first-named plate and said cross-piece, said last-named plate having a groove 11 and a shoul-

der 9<sup>2</sup>, a wedge-shaped pin passing through 15 said lugs or projections and engaging the side of said groove, thus drawing shoulder 9<sup>2</sup> into firm contact with cross-piece 6, and a plate pivoted to said last-named plate and adapted to be secured to the door, substantially as set forth. 20

In testimony whereof I affix my signature hereto in presence of two witnesses.

LOCKERT N. SHOEMAKER.

Witnesses:

M. J. MILNER,  
N. P. CLYBURN.