

C. T. J. GILES.

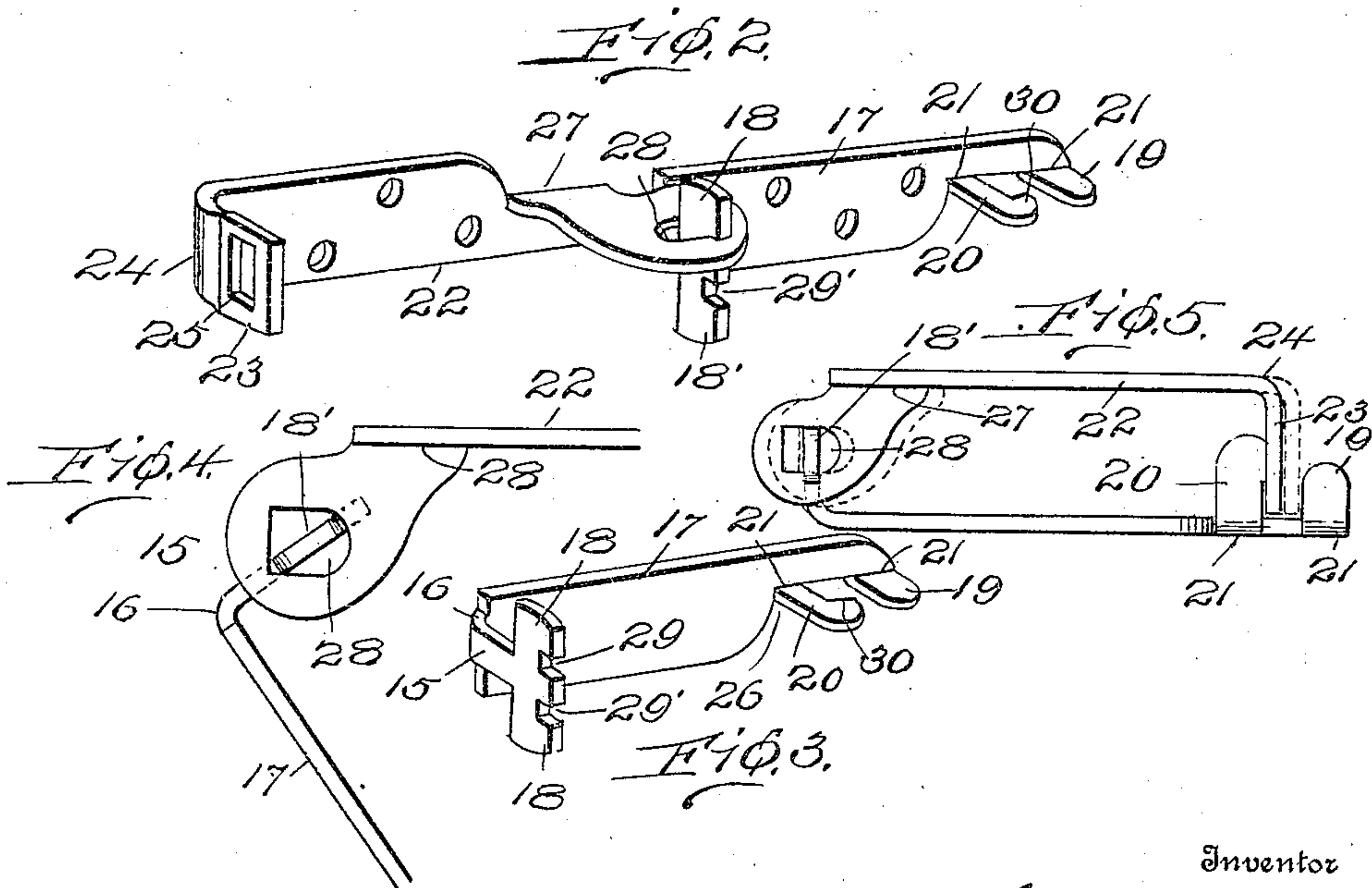
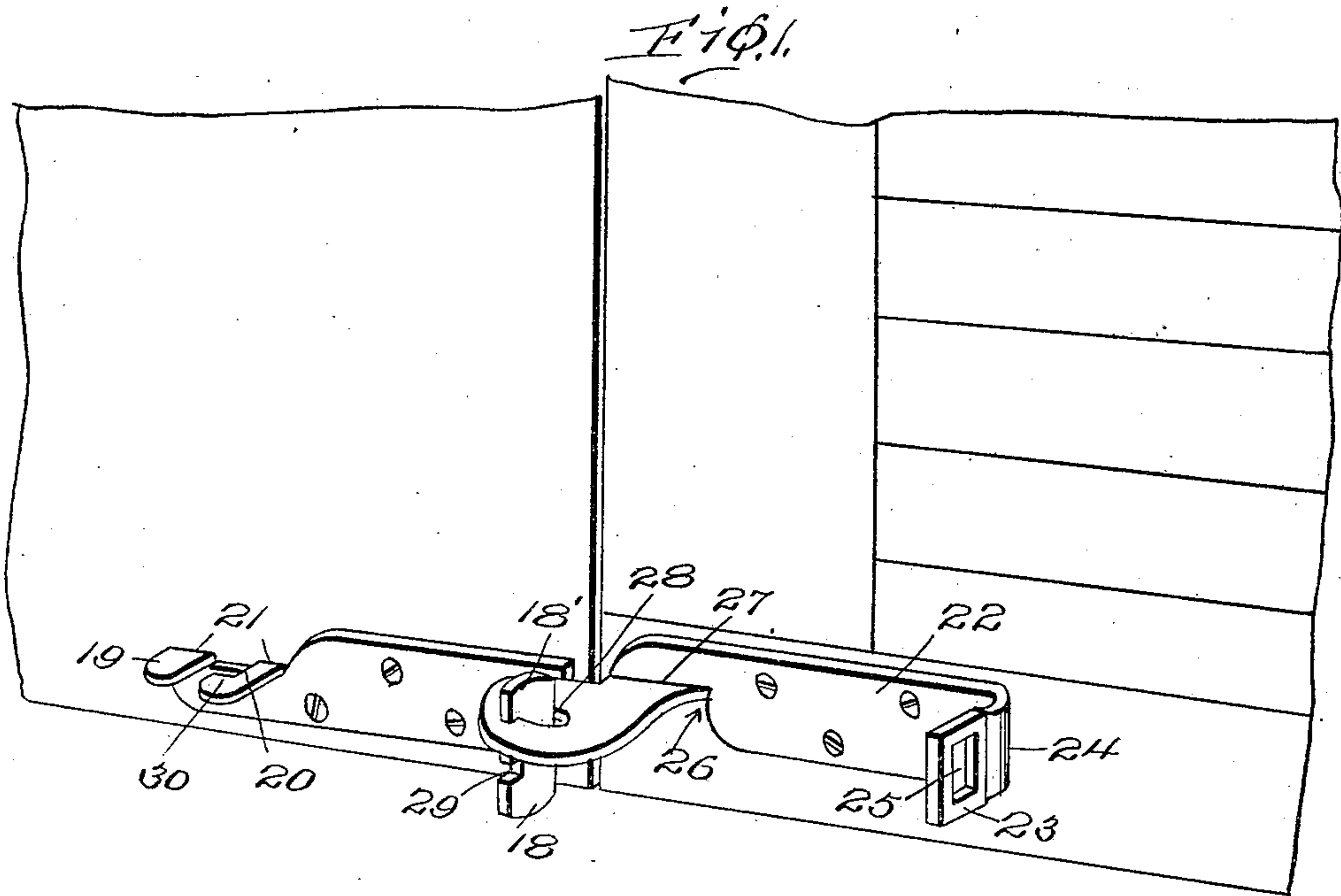
HINGE.

APPLICATION FILED JAN. 24, 1910.

960,085.

Patented May 31, 1910.

2 SHEETS—SHEET 1.



Inventor

Witnesses

*J. M. Fowler Jr.*  
*A. Sturges*

*Chesley T. J. Giles.*

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*Beall & Fenwick*

Attorneys

C. T. J. GILES.

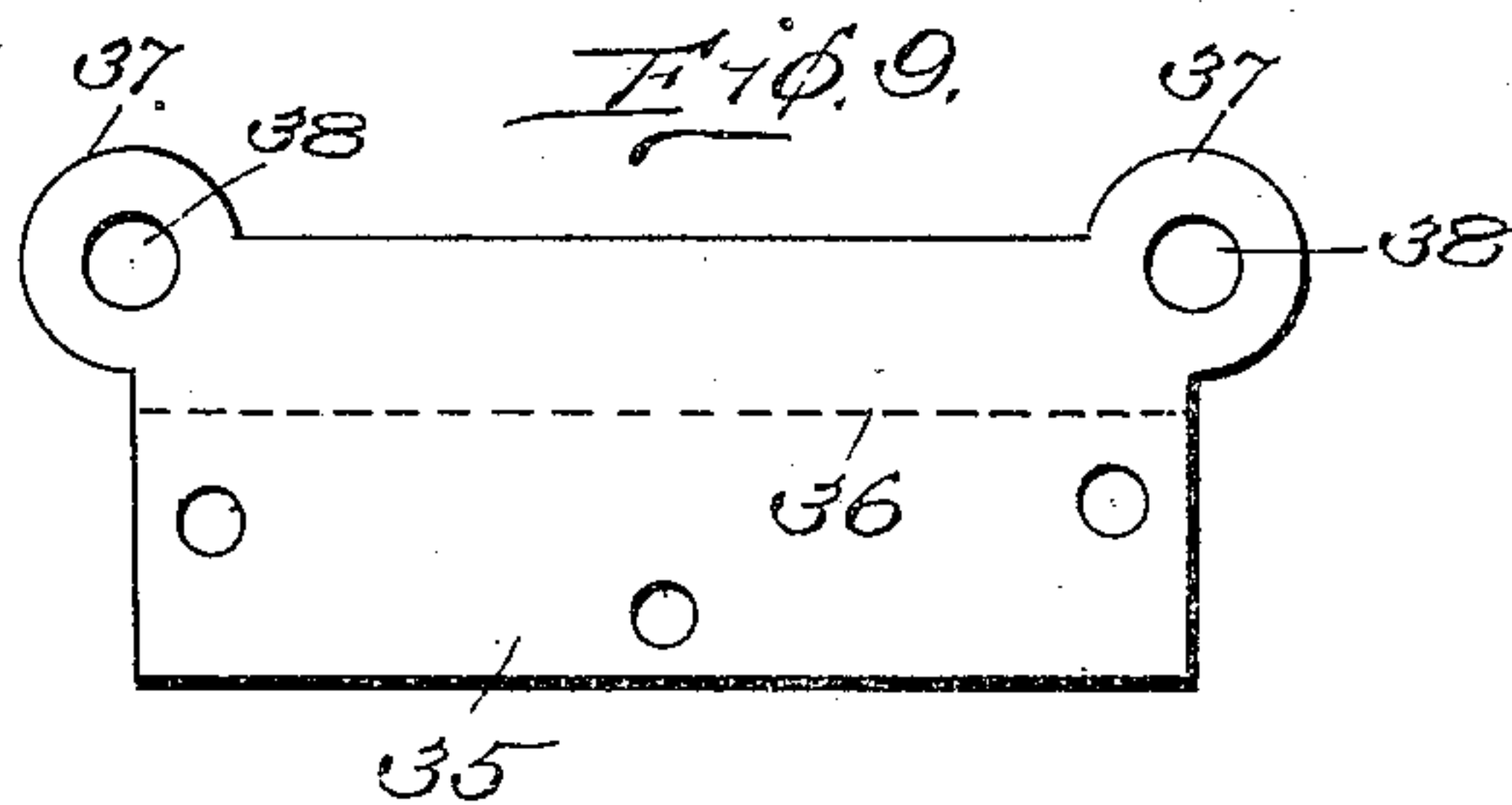
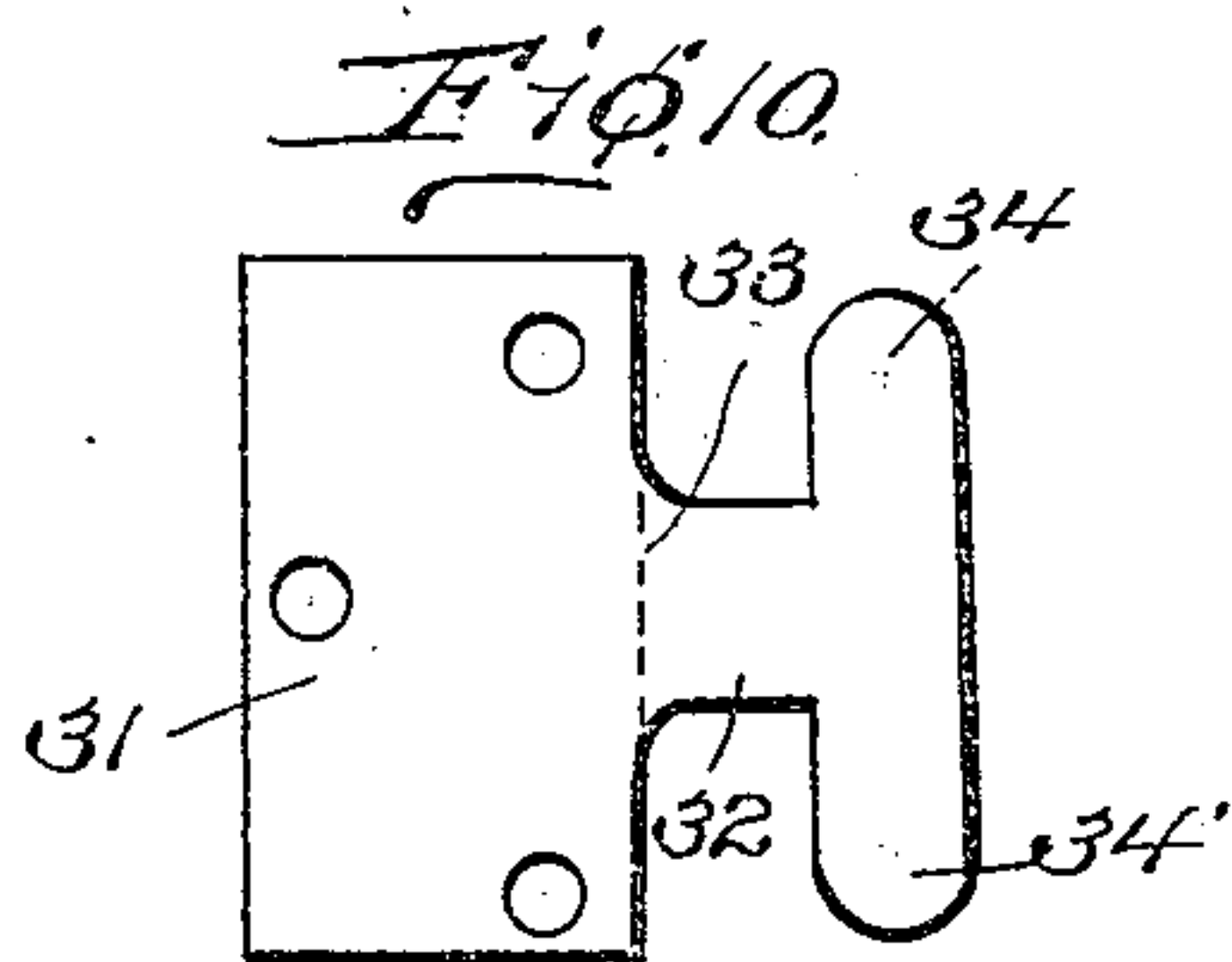
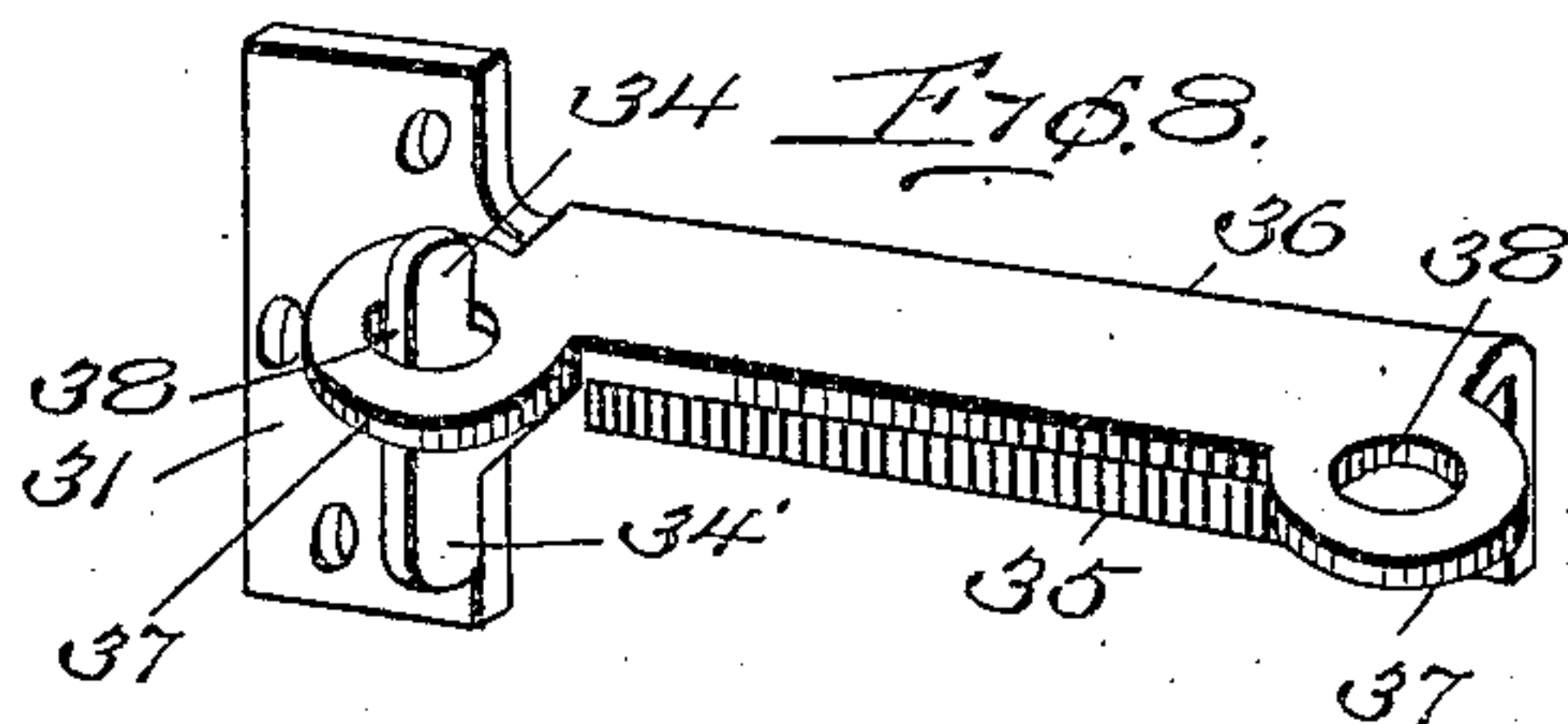
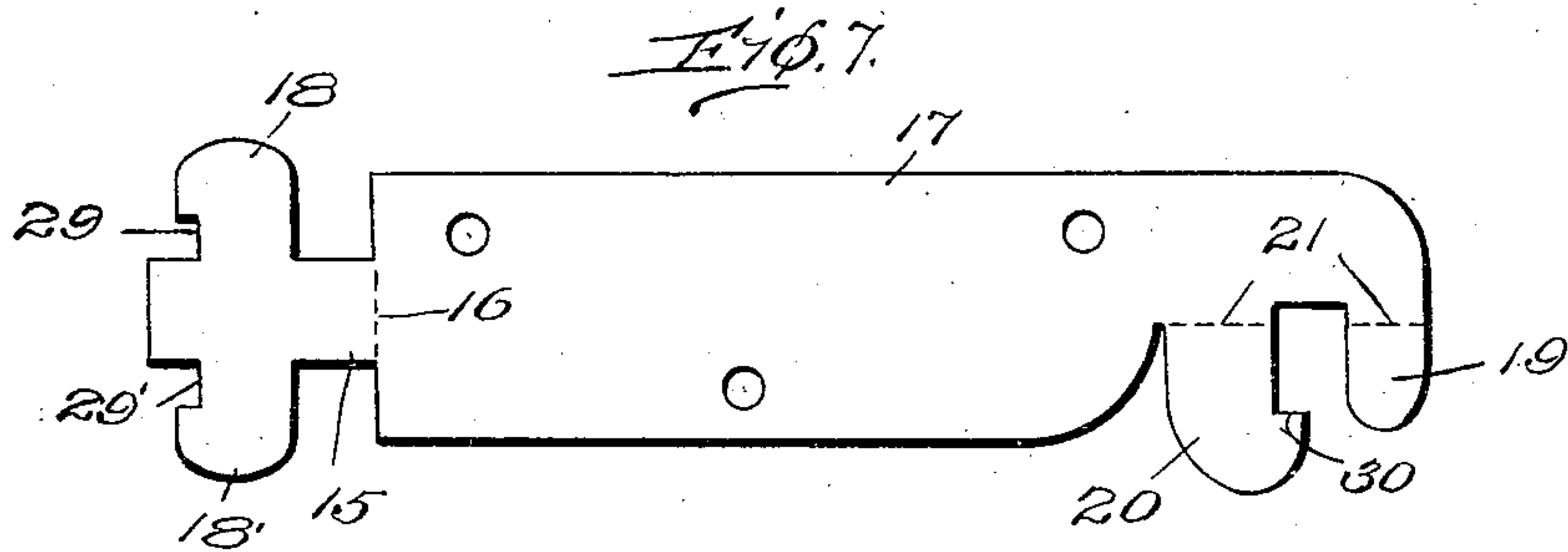
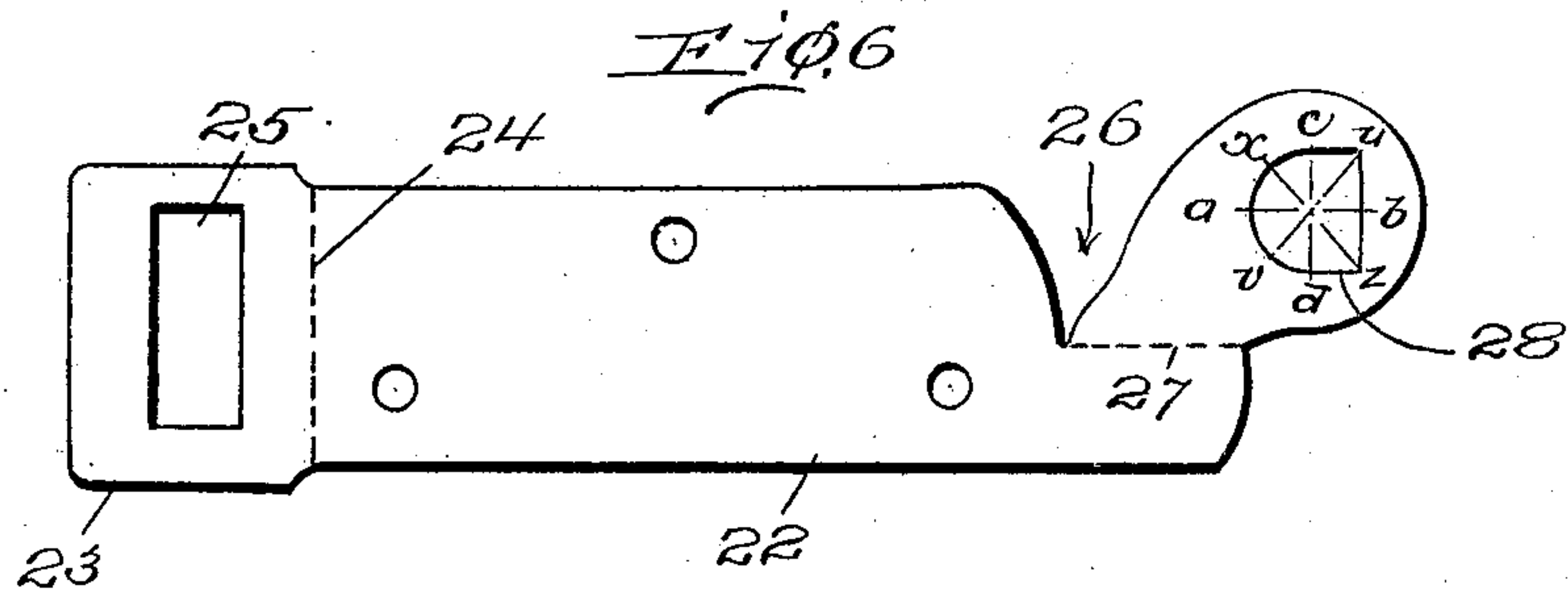
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2 SHEETS—SHEET 2.



Witnesses  
*J. M. Fowler Jr.*  
*W. Strauss*

Inventor  
*Chesley T. J. Giles*  
By *Beall & Fenwick*  
Attorneys



# UNITED STATES PATENT OFFICE.

CHESLEY T. J. GILES, OF GREENVILLE, SOUTH CAROLINA.

## HINGE.

960,085.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed January 24, 1910. Serial No. 539,776.

*To all whom it may concern:*

Be it known that I, CHESLEY T. J. GILES, a citizen of the United States, residing at Greenville, in the county of Greenville and State of South Carolina, have invented certain new and useful Improvements in Hinges, of which the following is a specification.

This invention relates to hinges and has for an object to provide a hinge especially adapted but not exclusively useful for mounting blinds and adapted to be struck and formed entirely from sheet metal.

A further object of the invention is to provide a hinge having interchangeable leaves adapting the hinge for use as both right and left hinge.

A further object of the invention is to provide improved form of hinge with lock integral with the hinge leaves employing the gravity of the blind to hold the leaves in locked engagement.

A further object of the invention is to provide a hinge with locking means adapted to take from the pintle of the hinge all lateral strain when the blind is open.

With these and other objects in view, the invention comprises certain novel constructions, combinations and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings:—Figure 1 is a view in perspective of the improved hinge mounted upon a fragment of a conventional blind and window frame. Fig. 2 is a perspective view of the improved hinge reversed. Fig. 3 is a perspective view of the leaf of the improved hinge which carries the pintle. Fig. 4 is a fragmentary plan view showing the position of the parts when one leaf may be removed from the other. Fig. 5 is a top plan view showing in full lines and dotted lines the action of the locking member in taking lateral strain from the pintle. Fig. 6 is a view of the blank from which one of the leaves of the hinge is stamped. Fig. 7 is a view of the blank from which the leaf of the hinge is stamped which carries the pintle. Fig. 8 is a view in perspective of a complementary stamped hinge also useful as a right and left hinge and for a top blind hinge to accompany the hinge shown at Figs. 1 to 7 inclusive. Fig. 9 is a view of the blank from which one leaf of the complementary hinge is struck. Fig. 10 is a view of the blank from which is struck

the leaf of the complementary hinge which carries the pintle.

Like characters of reference designate corresponding parts throughout the several views.

As shown at Fig. 7 that leaf of the hinge which carries the pintle is struck from a sheet of metal having a tongue 15 adapted to be bent at the dotted line shown at 16 substantially at right angles to the plane of the body portion 17 and with pintles formed upon each side of the tongue 15 and shown respectively as at 18 and 18'. At its opposite end the body portion 17 is provided with tongues 19 and 20 adapted to be bent on a line 21 substantially at right angles to the plane of the body 17 as shown particularly at Figs. 1, 2 and 3. The other leaf of the hinge as shown at Fig. 6 comprises a body 22 having at one end an enlarged portion 23 adapted to be bent at 24 at right angles to the body 22 and provided with an opening 25. At its opposite end the blank body 22 is provided with a V-shaped notch 26 whereby the extremity may be bent on the line 27 at right angles to the body, such extremity being laterally wider than the body as indicated at Fig. 6 and provided with a D-shaped opening 28.

The D-shaped opening 28 is so proportioned that upon either of the lines  $a-b$  or  $c-d$  the pintle 18 or 18' will not pass there-through but upon either of the lines  $u-v$  or  $x-z$  such pintle will pass through such opening. To permit then the two leaves of the hinge to rotate about the pintle notches 29 and 29' are formed in the pintle. The position of introducing the pintle into the D-shaped opening 28 is illustrated at Fig. 4 while the position lines are shown at Fig. 6.

The length of the hinged leaves is such that after the pintles have been entered in the D-shaped opening 28 and the blind moved to open position the off-set portion 23 will enter between the tongues 19 and 20. The tongue 20 is provided with a cut-out portion producing a shoulder 30 behind which the leaf 22 is engaged by such shoulder entering into the opening 25 and maintained therein by the gravity of the blind to which it is attached causing a movement of the leaf 22 relative to the leaf 17 moving thereby the pintle within the D-shaped opening 28. The gravity of the blind is such as to move the blind angularly rather than in a vertical plane being retained against verti-



cal movement by the complementary hinge shown at Figs. 8 to 10 and hereinafter described. The width of the opening between the tongues 19 and 20 is also such that no lateral strain is produced upon the pintle 18. It will be noted from Fig. 5 that the tongues 19 and 20 engage the off-set portion 23 in its lateral movement before the pintles 18 or 18' are engaged against the sides of the D-shaped opening 28.

To accompany the hinge disclosed in Figs. 1 to 7 inclusive a complementary hinge is employed shown at Figs. 8 to 10 inclusive, one leaf of which shown in blank at Fig. 10 is struck from a sheet of material 31 provided with a tongue 32 adapted to be bent at 33 and carrying the pintles 34 and 34'. The other leaf is struck from a sheet of material 35 adapted to be bent at 36 and provided at the corners with ears 37 and 37' in which are produced holes or openings 38 and 38' adapted to engage upon the pintles 34 or 34' whereby the hinge is, like the main hinge, adapted to be used as either a right or left hinge.

With the blind mounted upon the hinges as shown the blind is opened in the usual manner whereupon the offset portion 23 will strike against the tongue 20 and by reason of the beveled edge slip behind the shoulder 30 where it will be maintained by gravity of the blind. Under the action of the wind the blind will often be moved laterally in which case the offset portion 23 will engage alternately against the tongues 19 and 20 to prevent the exerting of lateral strain upon the pintles 18 and 18'.

What I claim is:—

1. In a hinge, a leaf having a tongue bent at right angles to the body and carrying a pintle, locking tongues carried by the body and disposed at right angles thereto, another leaf provided with an offset portion disposed at right angles to the plane of the leaf and provided with an opening proportioned to

engage upon the pintle, and with an offset portion having an opening adapted to engage between the locking tongues.

2. In a hinge, a body portion, a tongue struck up at right angles from one end of the body portion, pintles extending from opposite sides of the tongue, locking tongues struck up at right angles to the body portion and disposed in spaced relation at the ends opposite the pintle, another leaf provided with an ear struck up at right angles to the body portion and having an opening proportioned to engage upon either of the pintles, and an offset portion struck up at the end opposite the first-mentioned offset portion and provided with an opening adapted to engage between the locking tongues.

3. In a hinge, a leaf provided with an offset pintle having an enlarged head and reduced shank, locking tongues disposed at the end of the leaf opposite the pintle, another leaf having a D-shaped opening adapted to be inserted over the enlarged head of and engage upon the reduced shank of the pintle, and an offset portion provided with an opening adapted to engage between the locking tongues.

4. In a hinge, a leaf provided with pintles extending in opposite directions upon both sides laterally thereof, locking tongues formed at the end of the leaf opposite the pintle, a leaf provided with an offset portion having an opening adapted to engage over either of the pintles, and another offset portion adapted to engage between the locking tongues whereby the relation of the leaves may be reversed to produce right and left hinges.

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

CHESLEY T. J. GILES.

Witnesses:

JOHN L. FLETCHER,  
L. L. MORRELL.