

A. B. LANDIS.
SHUTTER HINGE.

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959,560.

Patented May 31, 1910.

Fig. 1.

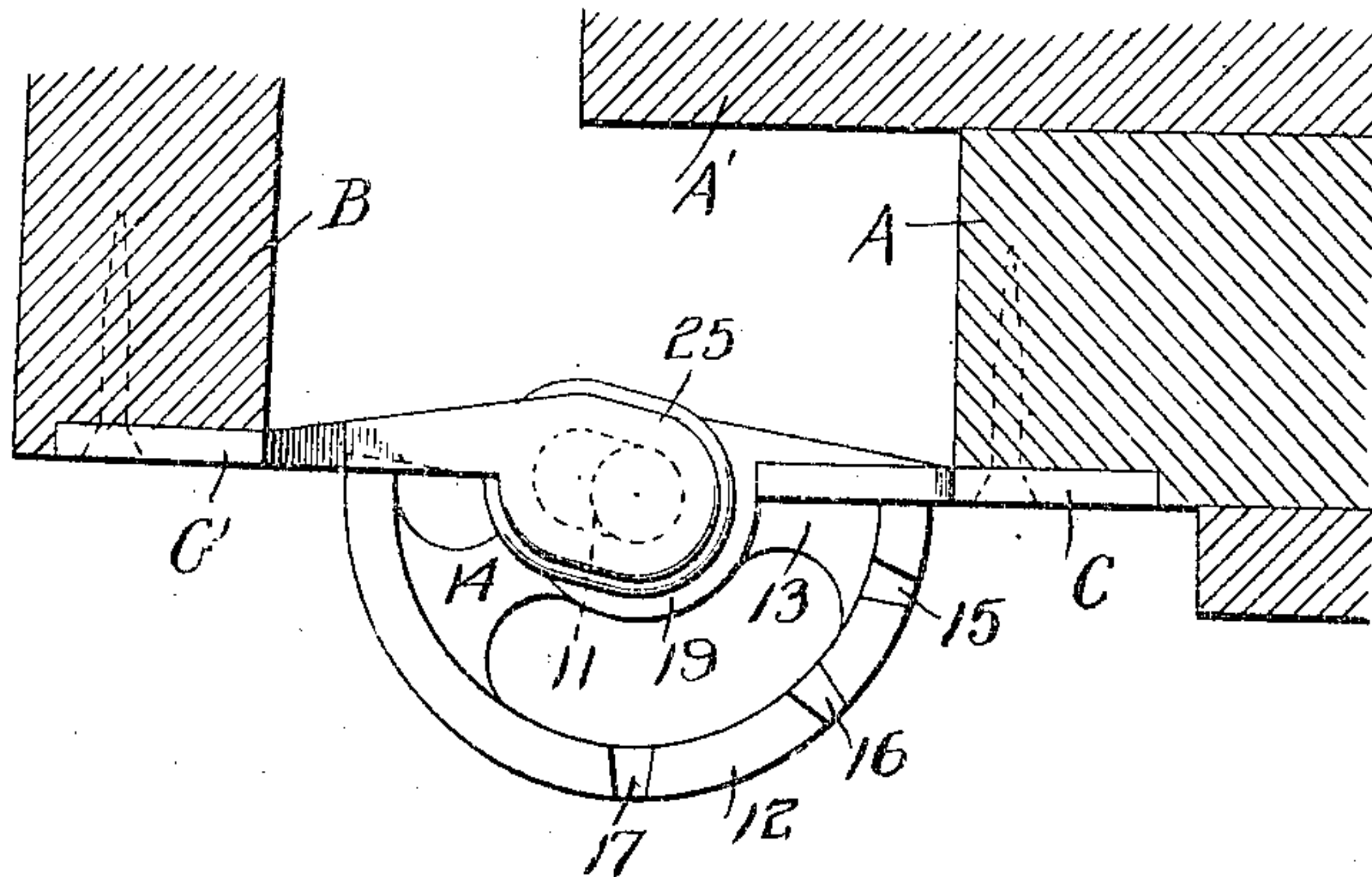


Fig. 2.

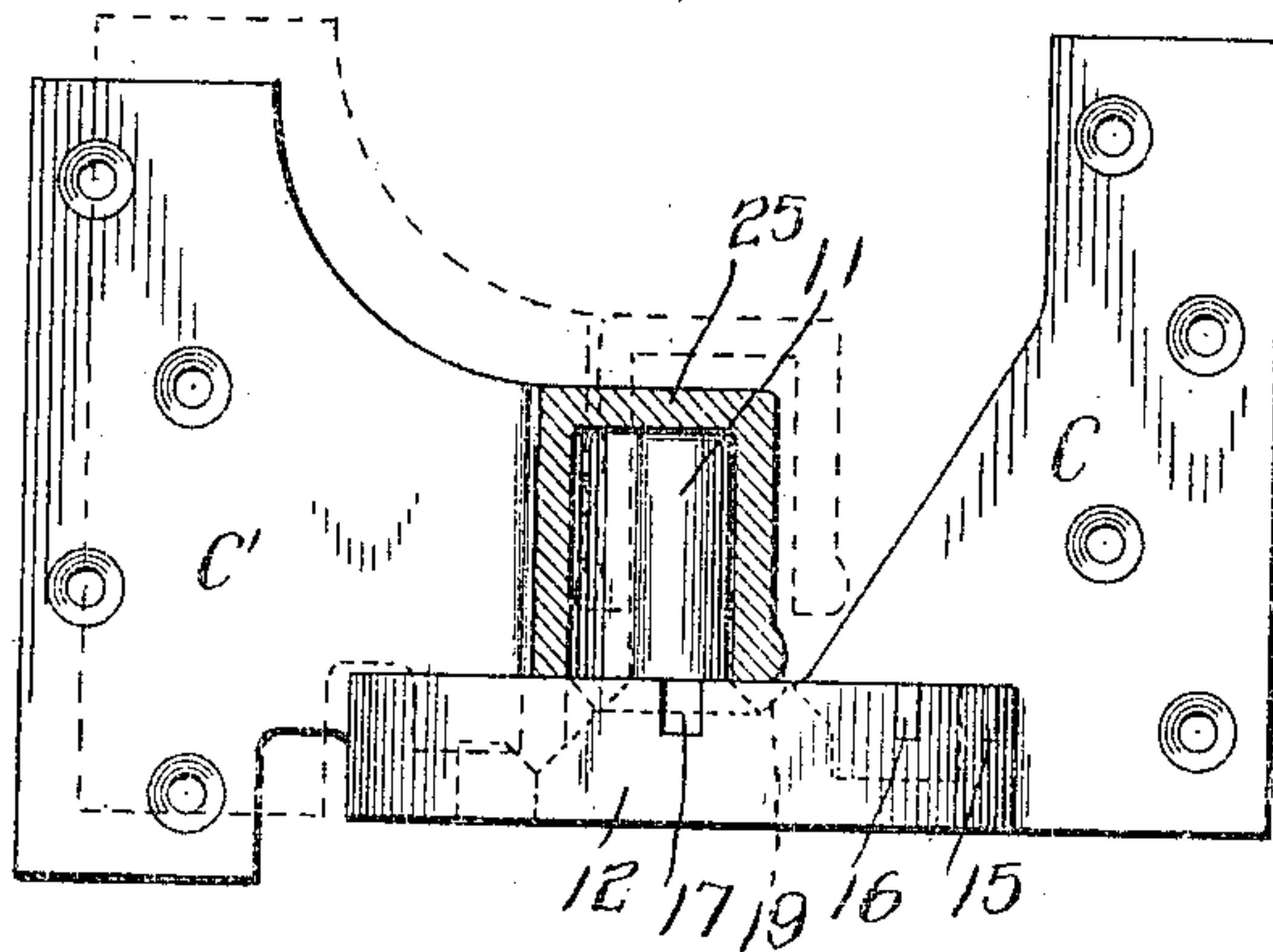
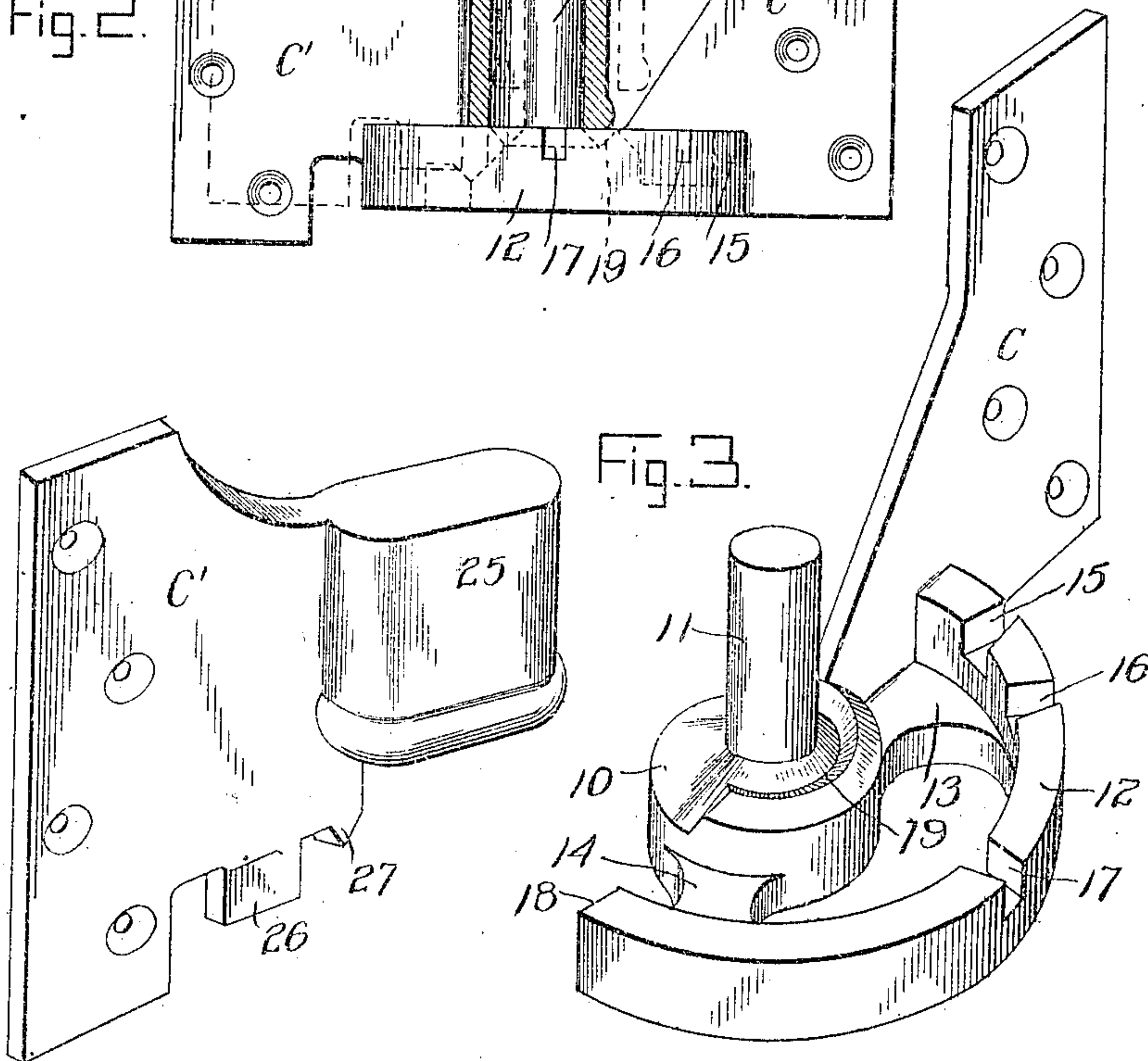


Fig. 3.



Witnesses
C. H. Reichenbach.
John W. Cornejo

Inventor
Abraham B. Landis,

By E. B. Bradford—
Attorney

UNITED STATES PATENT OFFICE.

ABRAHAM B. LANDIS, OF WAYNESBORO, PENNSYLVANIA.

SHUTTER-HINGE.

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To all whom it may concern:

Be it known that I, ABRAHAM B. LANDIS, a citizen of the United States, residing at Waynesboro, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Shutter-Hinges, of which the following is a specification.

My said invention consists in an improved construction of shutter hinge whereby such a hinge is provided which, while affording a firm support and guide for the shutter in opening and closing will, in itself, also furnish a lock for securing said shutter rigidly in wide open position and also in a "bowed" or partially open position at such angle as may be desired, all as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings which are made a part hereof and on which similar reference characters indicate similar parts, Figure 1 is a view showing a part of the window-frame and shutter in section and a hinge of my improved construction in top plan in open position, Fig. 2 a side elevation of the hinge in open position showing the socket of one part in section, and Fig. 3 a perspective view showing the two parts of the hinge separated.

In said drawings the portions marked A represent the window-frame, B the shutter, C the hinge-part attached to the window-frame and C' the hinge-part attached to the shutter. In Fig. 1 I have shown the hinge as it appears when attached to the frame A, which is set into a window-opening in the wall A' of a building, with the shutter B carried thereon and held in open position. The hinge-part C consists of a plate of suitable size containing the perforations to receive the screws for attaching it to the window-frame A. On the lower outer corner of said part is formed a base-block 10 carrying a vertical pintle 11 and a segmental bar 12 is secured thereto by means of suitable webs 13 and 14. In the upper edge of said segment 12 are formed a series of radial notches 15, 16 and 17 and its extreme outer end 18 is formed with a square face to serve as an abutment for the locking lug 26 of the section C'. The top face of the base 10 is formed with a V-shaped groove 19 around one side thereof and adjacent to said groove is formed an A-shaped ridge, the end of said groove and ridge terminating at substantially the line of the face of the shutter in

open position, where the top face of base 10 is tapered outwardly and downwardly, as shown most clearly in Fig. 3. The hinge-part C' is a plate of suitable form provided with perforations for the attaching screws and has a casing 25 formed on its inner edge in which is an elongated socket adapted to slide over the pintle 11 of the hinge-part C, the elongated form of the socket permitting a limited sliding movement of said hinge-part C' on said pintle. On the lower edge of said hinge-part C' is formed a lug or locking projection 26, and a V-shaped guiding lug 27 adapted to fit in the V-shaped groove 19 in the top of the base 10. Said lug 26 is of tapered form as most clearly shown by dotted lines in Fig. 1, the notches in segment 12 having correspondingly tapered sides.

In use, the parts being assembled, as shown in Figs. 1 and 2, the lug 27 will fit in the groove 19, which serves as a track or guide therefor, holding the hinge-part C' so that the inner face of the elongated socket will bear against the side of pintle 11 the lug 26 being carried between the outside surface of base 10 and the inner surface of the segment 12, permitting said hinge-part C' with the shutter carried thereon to swing freely while said lug 27 is in said groove 19. As soon as the shutter is swung to an open position, as shown in Fig. 1, said lug 27 passes the end of the A-shaped ridge surrounding groove 19 and slides down the inclined top surface of the base 10 throwing the projection or latch 26 in front of the end 18 of the segment, the weight of the shutter holding the parts in this position and locking the shutter open. When it is desired to close the shutter it can be done by taking hold of its edge and sliding it back so that the lug 27 will slide up the inclined surface of the base 10 to a position to register with the end of groove 19, as indicated by dotted lines in Fig. 2, when the part C' can be turned on the pintle 11 and the shutter closed. When it is desired to secure the shutter in a partially open position it is pulled forward so that the lug 27 will slide up over the A-shaped ridge surrounding the groove 19 and as soon as said lug passes over the apex of said ridge it will throw the latch 26 against the inner face of segment 12 and force its tapered outer end into engagement with one of the tapered notches 15, 16 or 17 as soon as it is brought to a position to register there-

with. The notch 15 serves to receive the lug 26, and secure the shutter when in a nearly closed position. It will thus be seen that groove 19 serves as a track upon which the shutter may be swung back and forth freely from closed to a wide open position where it will be automatically locked, and by pulling the part C' with the shutter thereon outward on the pintle 11, so that lug 27 will be on the outside of the ridge surrounding the groove 19, the lug 26 will engage with one or the other of the notches in the segment 12 when brought into proper position and thus securely lock said shutter in any particular position desired. The lug 26 and the notches in segment 12 being of tapered form the parts will engage firmly and hold against all rattle.

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

1. A shutter hinge comprising a hinge-part having a segment concentric with the pintle and containing notches with tapered sides, and a hinge-part mounted on said pintle by means of an elongated socket and having a projection with tapered sides adapted to engage with one or the other of said notches of said segment, said part being thus adapted to slide on said pintle to permit said engagement, substantially as set forth.

2. A shutter hinge comprising a hinge-part carrying a pintle mounted upon a base formed with a groove terminating in an outwardly and downwardly inclined surface at the point of the open position and surrounded by an A-shaped ridge, a segment adjacent to and at a distance from said ridge formed with a series of radial notches, another hinge-part mounted on said pintle by means of an elongated socket and formed with a V-shaped lug for engagement with said groove and with a locking projection outside of the said lug adapted to engage with said radial notches, substantially as set forth.

3. A shutter hinge comprising a hinge-

part formed to be attached to the window-frame and with a base carrying the pintle extending up from the center thereof and with a groove adjacent to said pintle and a ridge adjacent to said groove, a segment on said hinge-part at a distance from said groove with radial notches therein, the other hinge-part formed with an elongated socket for engagement with said pintle and with a lug on its lower edge for engagement with said groove and a lug for engagement with said notches in said segment when on the outside of said ridge, substantially as set forth.

4. A shutter hinge comprising two parts one carrying the pintle and formed with a surrounding base having a groove extending on the working side of said pintle to a point in line with the open position of the shutter where it is formed with a downwardly and outwardly inclined face and a segment with locking faces adjacent to said groove, the other hinge-part being mounted on said pintle and formed with a portion adapted to run in said groove and a part to engage with said locking faces, substantially as set forth.

5. A shutter hinge comprising a hinge-part formed with a base carrying the pintle and a segment adjacent to said pintle with notches therein, the top of said base being formed with a portion tapered downwardly and outwardly, and the other hinge-part formed with an elongated socket mounted on said pintle and formed with a locking projection adapted to engage with said notches when brought to position to register therewith, substantially as set forth.

In witness whereof, I, have hereunto set my hand and seal at Waynesboro, Pennsylvania this 14th day of August, A. D. nineteen hundred and nine.

ABRAHAM B. LANDIS [L. S.]

Witnesses:

GEO. H. RUSSELL,

ALF. N. RUSSELL.