

No. 615,654.

Patented Dec. 6, 1898.

M. C. MULCAHY.

LOCK HINGE.

(Application filed Oct. 13, 1897.)

(No Model.)

Fig. 1

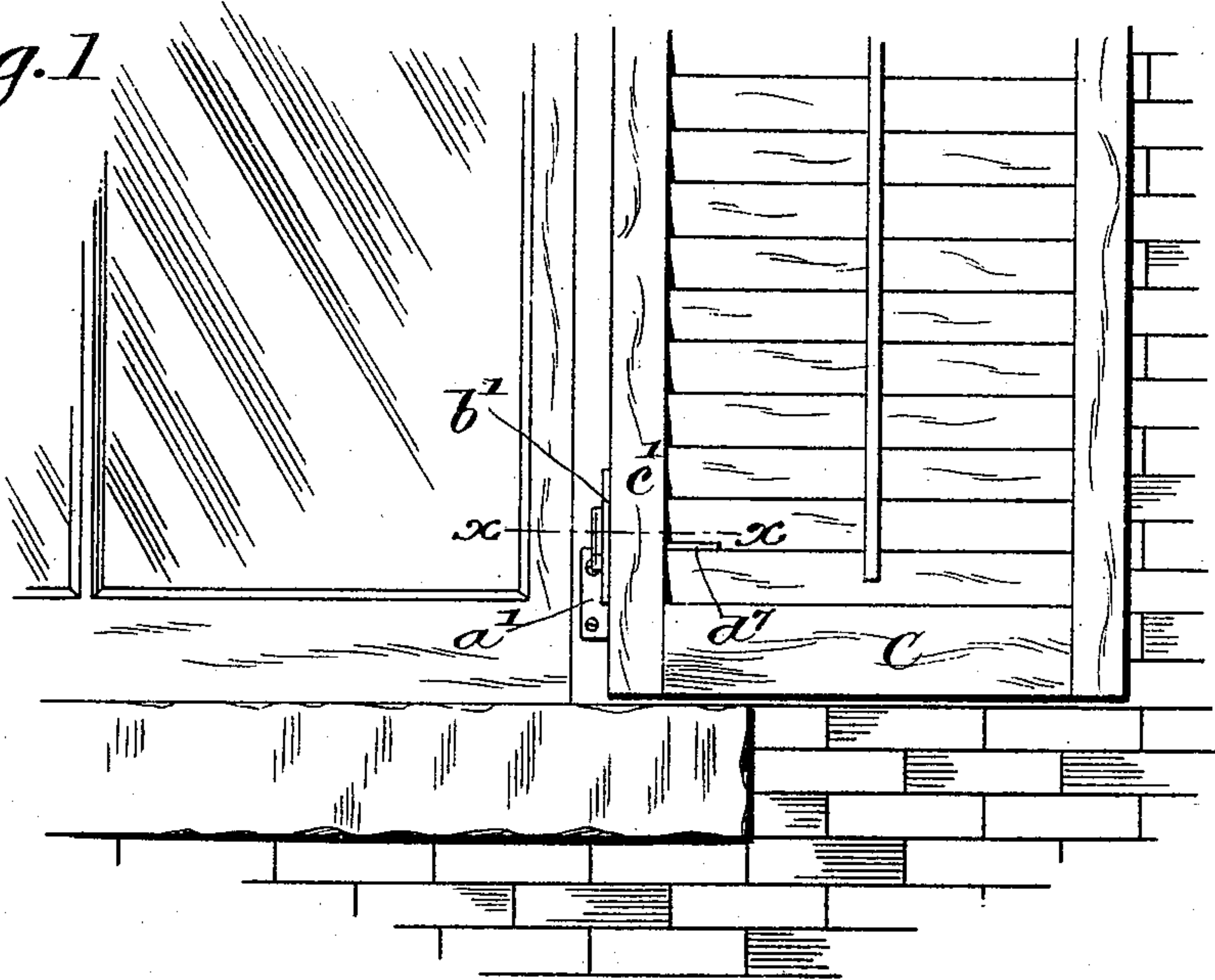


Fig. 2.

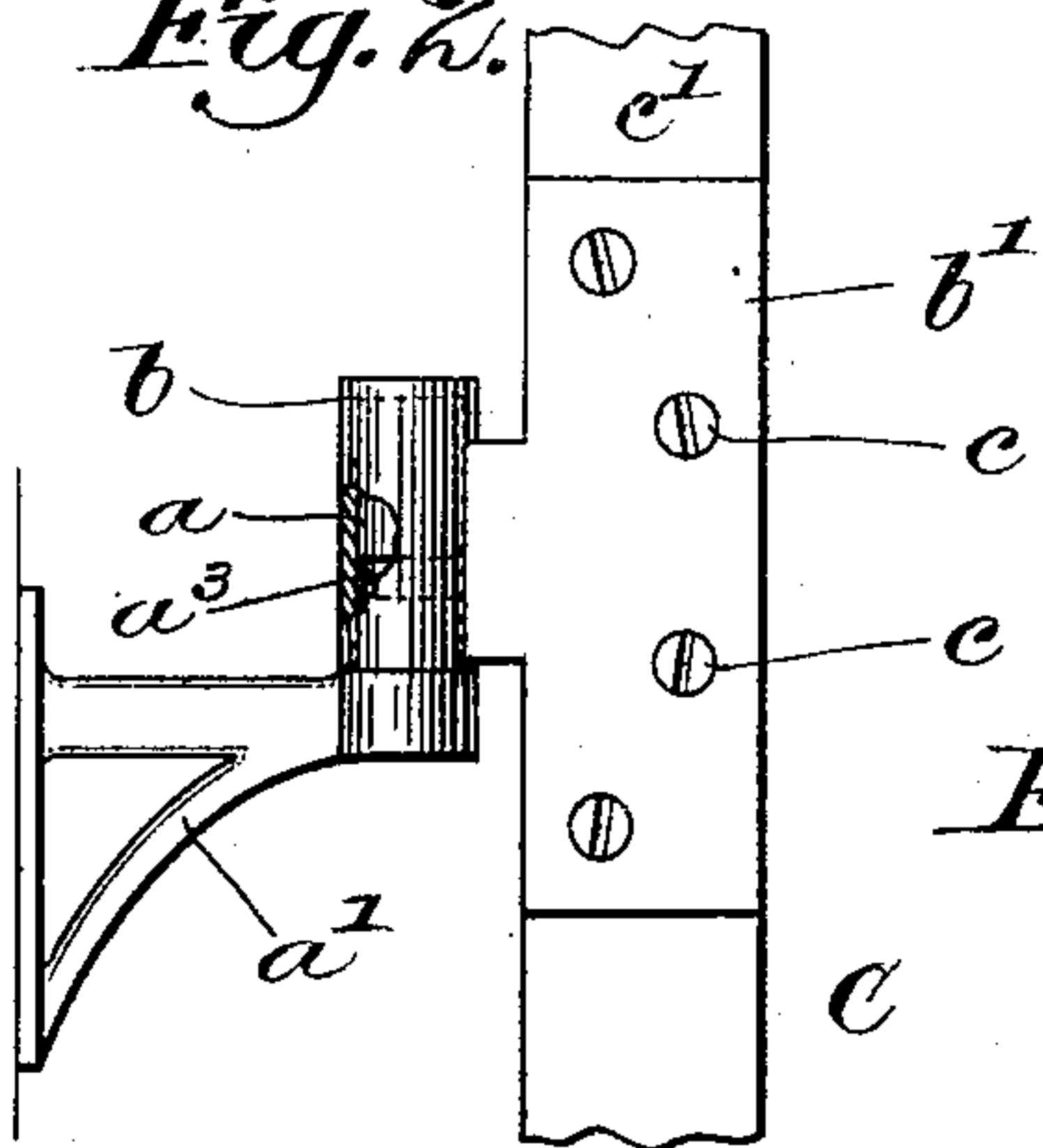


Fig. 3.

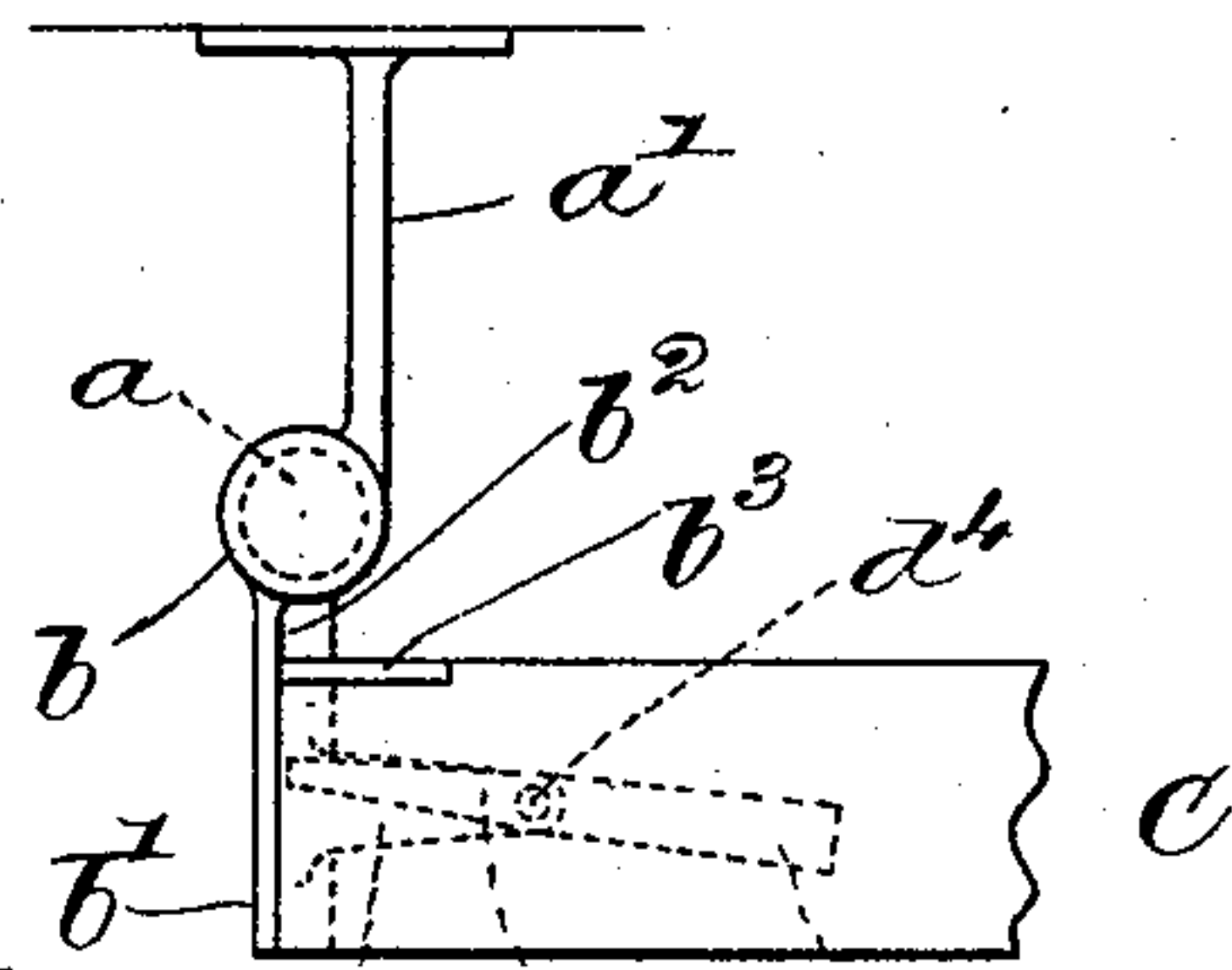


Fig. 5.

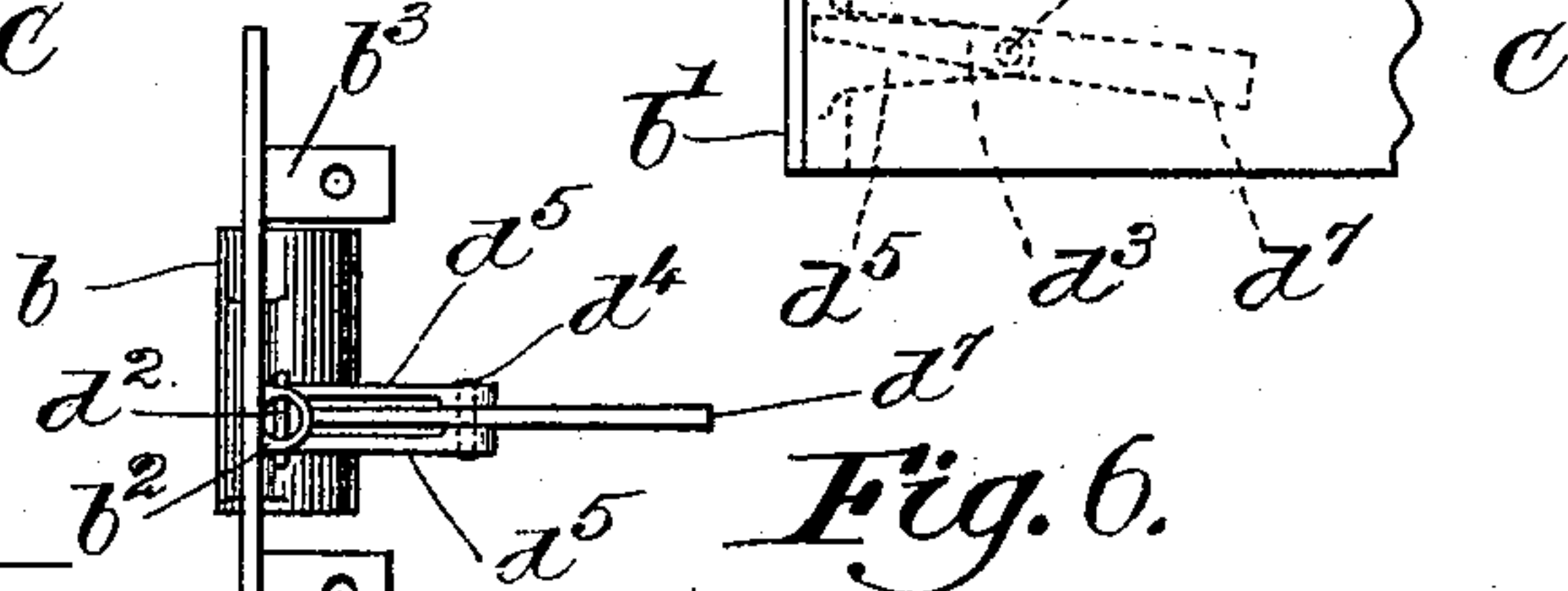


Fig. 4.

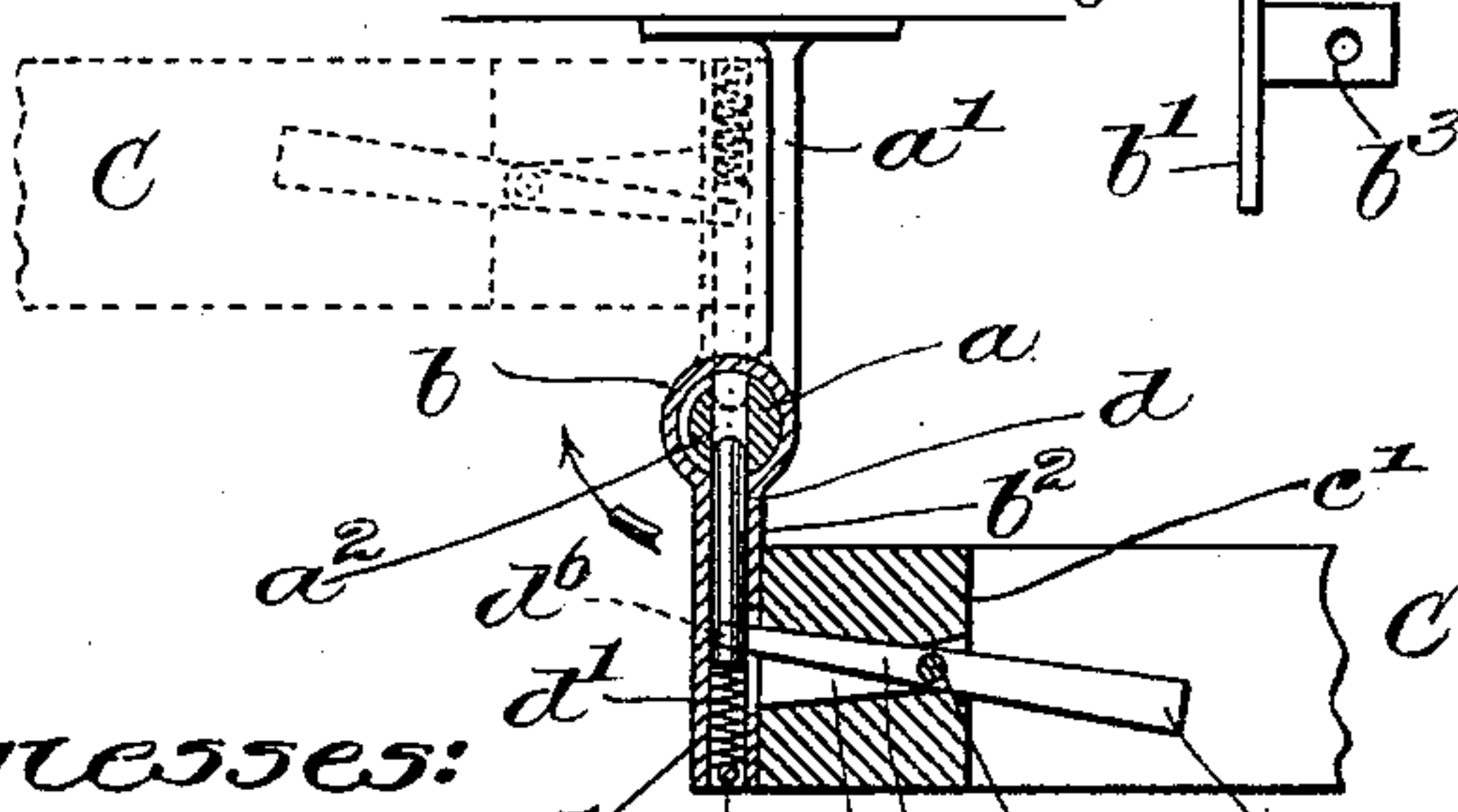
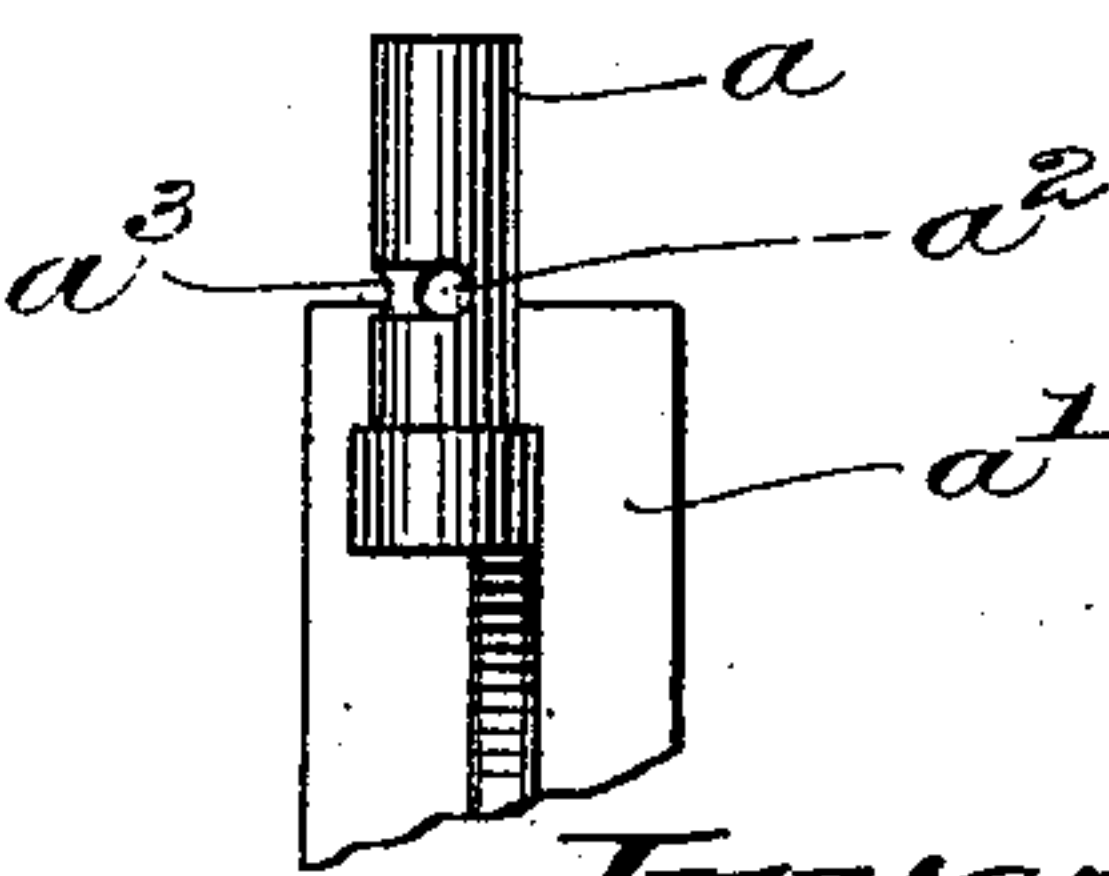


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

MICHAEL C. MULCAHY, OF COHASSET, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JOHN MADDEN, OF SAME PLACE.

LOCK-HINGE.

SPECIFICATION forming part of Letters Patent No. 615,654, dated December 6, 1898.

Application filed October 13, 1897. Serial No. 655,040. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL C. MULCAHY, of Cohasset, county of Norfolk, and State of Massachusetts, have invented an Improvement in Blind-Fastening Hinges, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention relates to hinges, and has for its object the production of a hinge provided with means whereby the blind or shutter which it supports may be locked in predetermined position and prevented from swinging to and fro, the means being situated at
15 such a point as to enable them to be readily controlled and operated without the necessity for leaning out of the window. Preferably the fastening means are also arranged
20 to prevent the shutter from rising on the pintle of the hinge and falling off the latter.

The various features of my invention will be fully illustrated and described in the accompanying drawings and specification and
25 set forth in the claims.

In the drawings, Figure 1 shows a portion of the wall of a house with a window-frame and a shutter attached thereto by means of a hinge constructed in accordance with my invention, the shutter being shown open or
30 thrown back against the wall of the house. Fig. 2 shows, on an enlarged scale, in side elevation the hinge and adjacent part of the shutter. Fig. 3 is a plan view of the hinge and attached portion of the shutter, a concealed portion of the hinge being indicated in dotted lines. Fig. 4 is a sectional view on the
35 line *xx*, Fig. 1, this figure also showing in dotted lines the shutter in closed position. Fig. 5 is a view in front elevation of the socket portion of the hinge in the position it occupies in Fig. 1, but shown separately to permit the operating devices to be seen. Fig. 6 is a
40 similar view of the pintle portion of the hinge.

45 In the preferred embodiment of my invention, selected for description and illustrated in the drawings, *a* is the pintle or portion on which the leaf of the hinge vibrates and which in its general features may be of ordinary
50 construction or of suitable desired construction,

being attached to the wall by a suitable bracket *a'*, illustrated as of usual form. On this pintle fits the socket *b*, forming part of the leaf *b'* or shutter-carrying portion of the hinge, in general of ordinary construction, preferably, and attached to the shutter *C* in
55 any suitable manner, as by the screws *c*.

In accordance with my invention I provide fastening or locking means adapted to engage both portions of the hinge at times and prevent relative movement therebetween, and in the instance illustrated such means are carried by the leaf portion of the hinge and movable thereon in position to engage the pintle. As a convenient form of such fastening means
65 I have shown a bolt *d*, mounted to slide in a suitable housing *b²* on the leaf of the hinge, transversely arranged with respect to the pintle, toward which I arrange, preferably, to have it pressed normally by suitable means,
70 consisting in this instance of a spring *d'* at the butt-end of the bolt and held up to its work by a pin or equivalent stop *d²*, a construction which permits ready removal and replacement of the spring without disturbance of the bolt or other parts of the hinge. To receive the head of the bolt *d*, the latter
75 being slightly rounded, preferably, I have shown the pintle as recessed, and any desired number of such recesses may be provided, although in general two will be sufficient, those being situated, respectively, at points where entrance of the bolt will cause the shutter to be held in its extreme open position
80 closely adjacent the wall of the house or in its closed position drawn to against the frame, as indicated by dotted lines in Fig. 4.

A convenient manner of forming the locking-recesses in the pintle is by piercing the latter, as indicated at *a²* in Fig. 6, and if it is
90 desired to secure the advantage of having the shutter prevented from rising on the pintle as a simple construction to effect this end I prefer to connect the ends of the bore *a²* by a peripheral groove *a³*, into which takes the
95 head of the bolt *d*.

Any suitable means to operate the locking means may be utilized; but where a locking-bolt similar to the bolt *d* is used, in the manner above described, I prefer to use operat-
100

ing means such as illustrated, consisting of a lever connected operatively at its inner end with the bolt and at its outer end projecting beyond the material of the shutter in such a manner as to permit the lever to be conveniently reached and operated manually. Such a lever is designated in the drawings by the reference-letter d^3 , supported from the leaf of the hinge and pivoted at d^4 in trunnions d^5 , (best seen in Fig. 5,) the operative connection with the locking-bolt d being provided for by causing the inner end of the lever to enter a recess or slot d^6 near the butt of the bolt. The lever is extended at its free end d^7 sufficiently beyond the end piece c' of the shutter to permit it to be readily reached and operated by the operator's hand.

When the shutter is in the position shown in full lines in Figs. 1 to 4 and it is desired to swing the shutter into closed position, it is only necessary to press with the fingers the end d^7 of the lever toward the house—*i. e.*, from bottom to top of the sheet, referring to Fig. 4—when the bolt will be retracted against the action of the spring d' , releasing the shutter, after which it may be swung around into the dotted-line position, and upon reaching this position the bolt will automatically enter the inner end of the bore a^2 , locking the shutter in closed position.

In Figs. 3 and 5 I have shown auxiliary means of attachment for the leaf, these consisting in the instance shown of perforated lugs b^3 ; but these do not form an essential feature of my invention, nor in general do I restrict myself to the exact construction of pintle, leaf, or operating parts, since these

may be varied considerably without departing from the spirit of my invention.

From the foregoing description and the drawings it will be clear that the operative parts of the hinge are thoroughly protected from the action of rain, frost, or snow, so that the parts cannot become rusty or choked with ice in winter.

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

1. In a hinge, a pintle having recesses and a peripheral groove, and a leaf provided with a locking-bolt adapted to enter said recesses respectively to lock said pintle and leaf in a plurality of rotative positions and to travel in said groove, said bolt and groove cooperating to maintain the parts of the hinge in their normal operative position and prevent unshipping thereof, and means by which said bolt may be withdrawn from said groove to permit the separation of said hinge parts.

2. The combination with a shutter or blind of a hinge provided with means to lock said shutter in desired position, said locking means having its operating parts confined wholly within the frame of said shutter and a controlling-lever, to be operated at a point within, and free from projections beyond, said shutter-frame, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MICHAEL C. MULCAHY.

Witnesses:

JOHN C. EDWARDS,
EMMA J. BENNETT.