

(Model.)

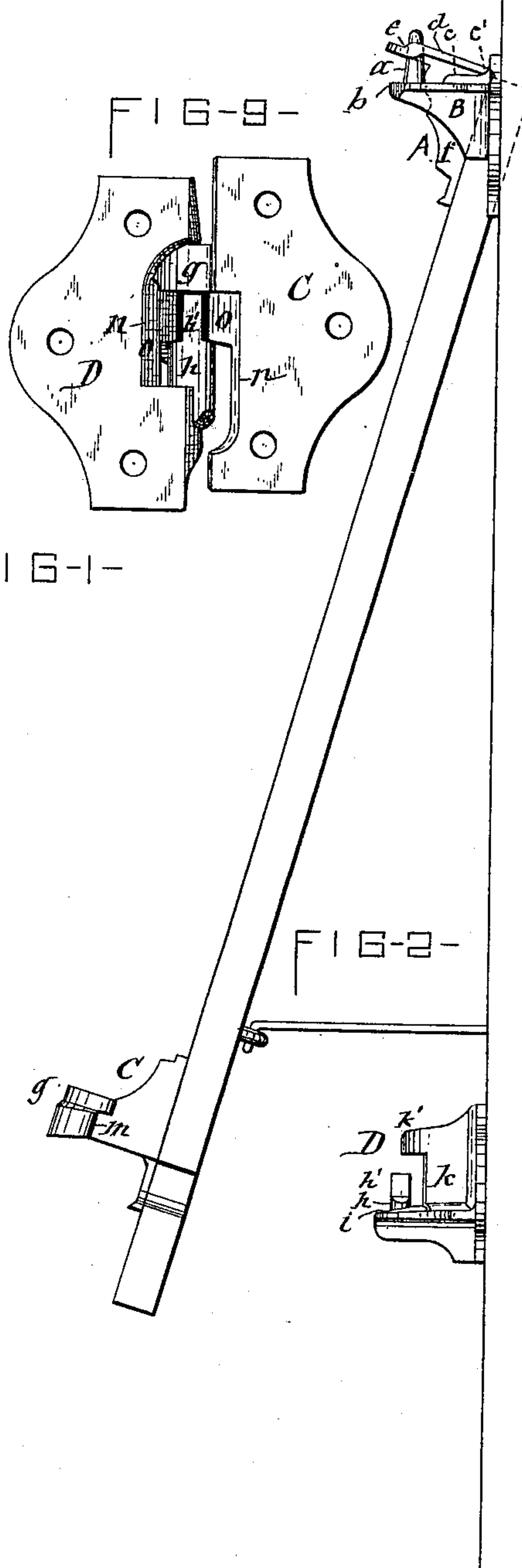
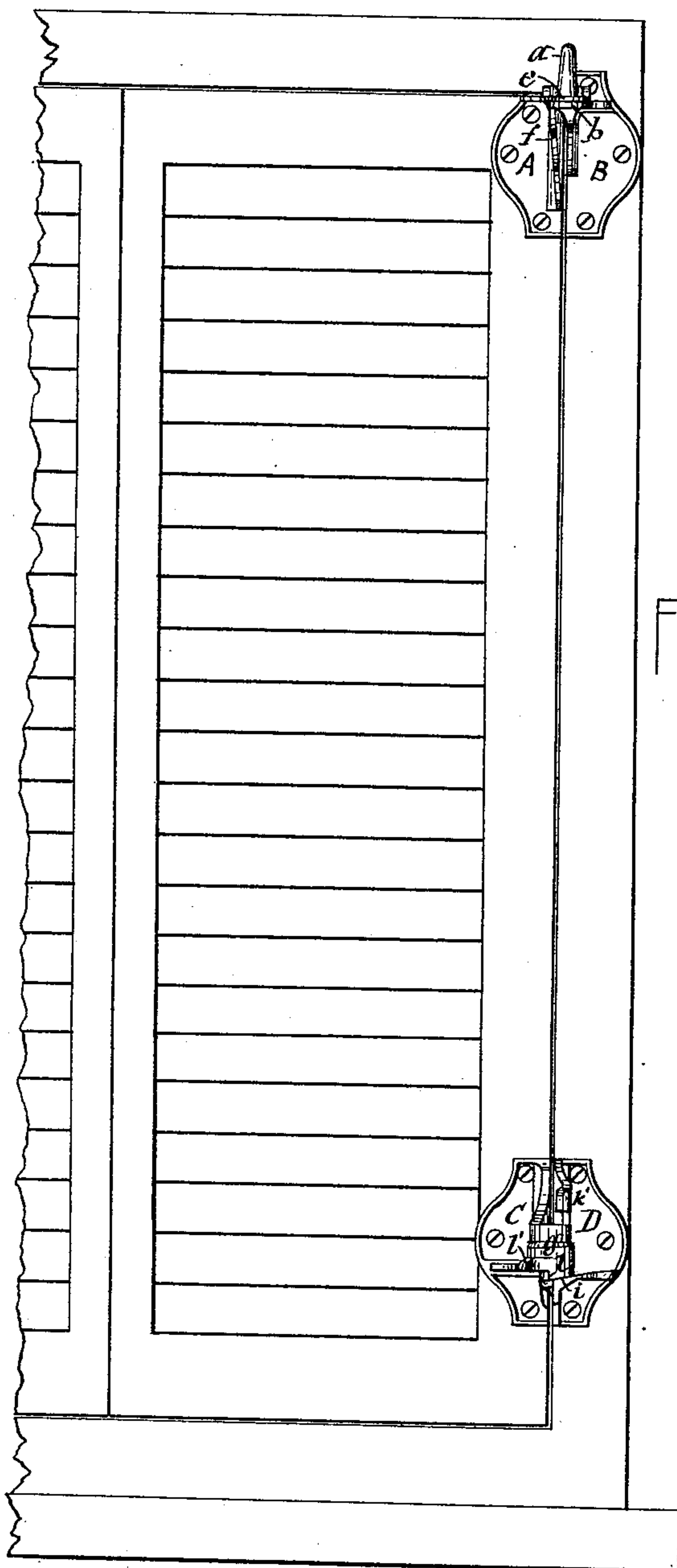
2 Sheets--Sheet 1.

C. GARLICK.

HINGE FOR AWNING BLINDS.

No. 326,967.

Patented Sept. 29, 1885.



ATTEST—
Clara E. Raymond
J. H. Gibbs

INVENTOR—
Charles Garlick
per Russell, Laass & Hays
Attys

(Model.)

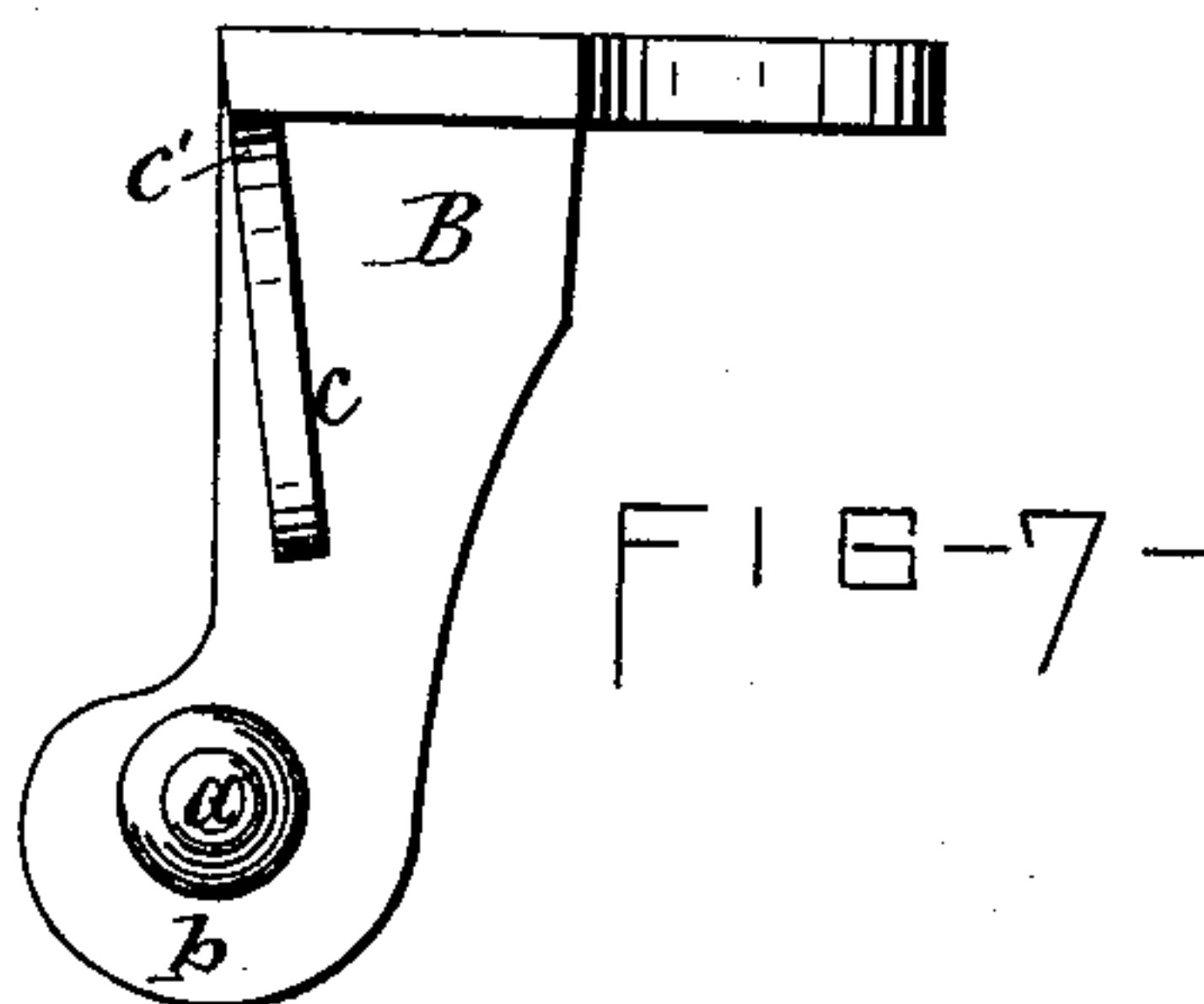
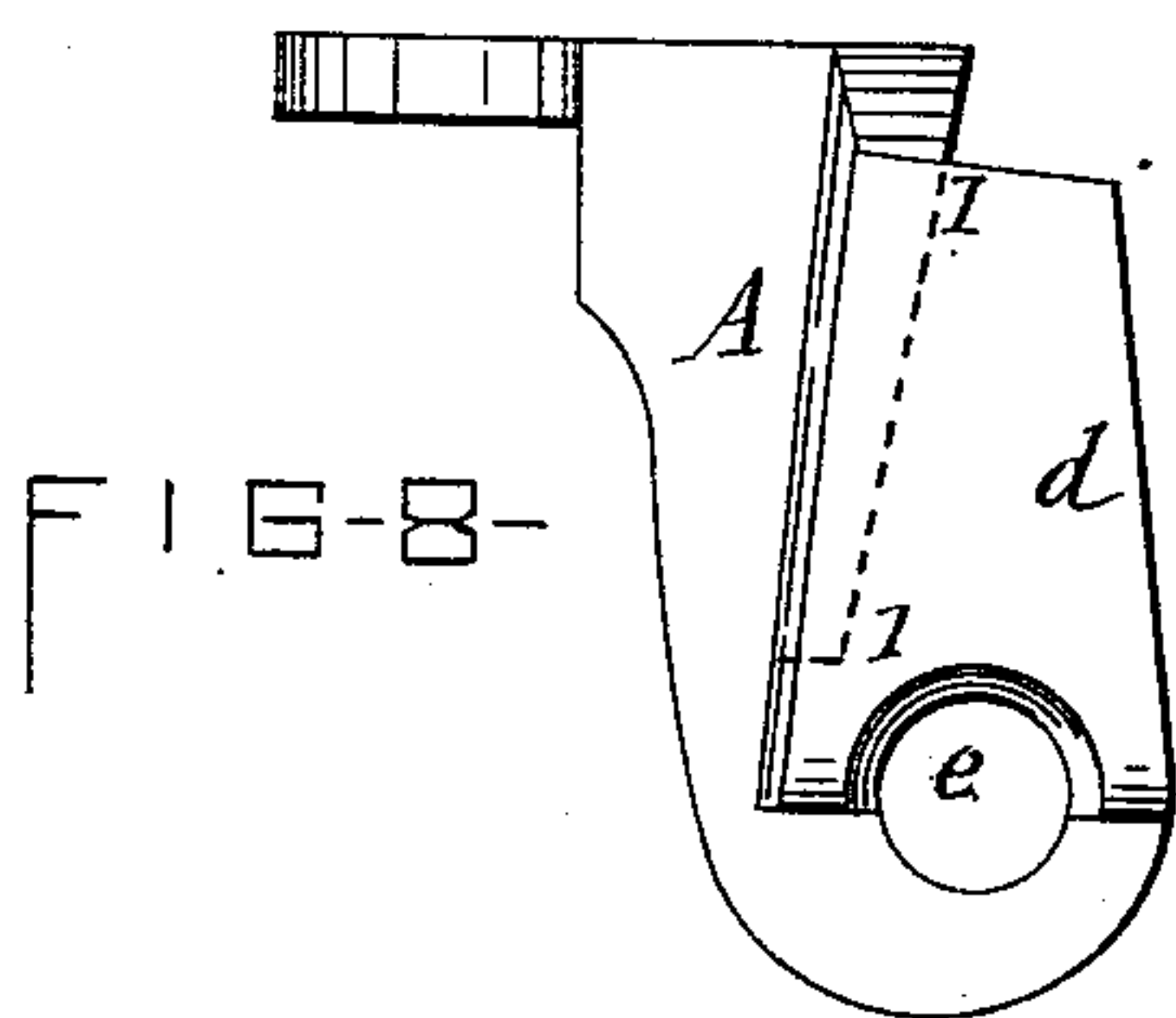
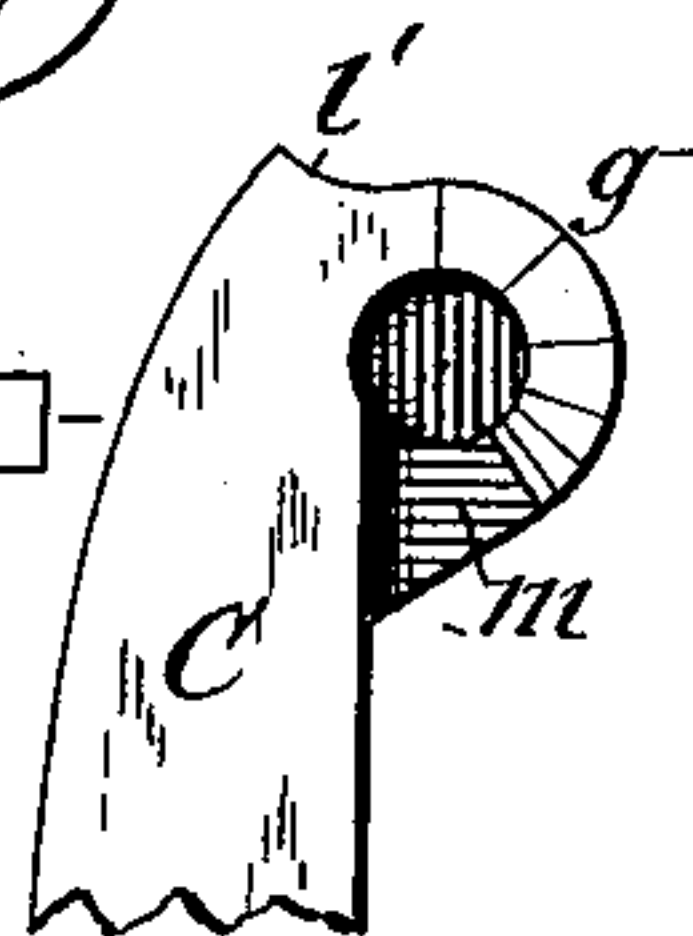
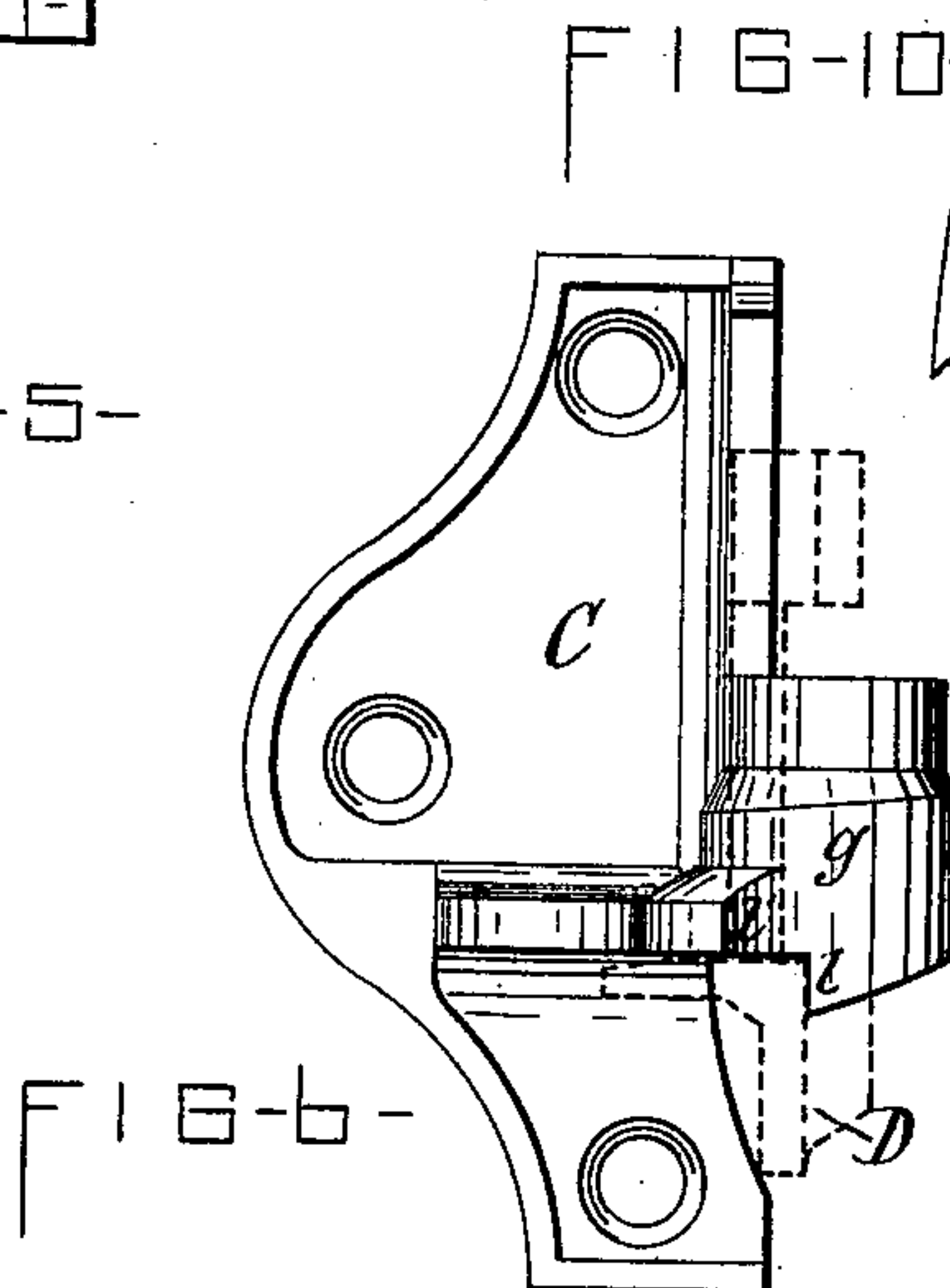
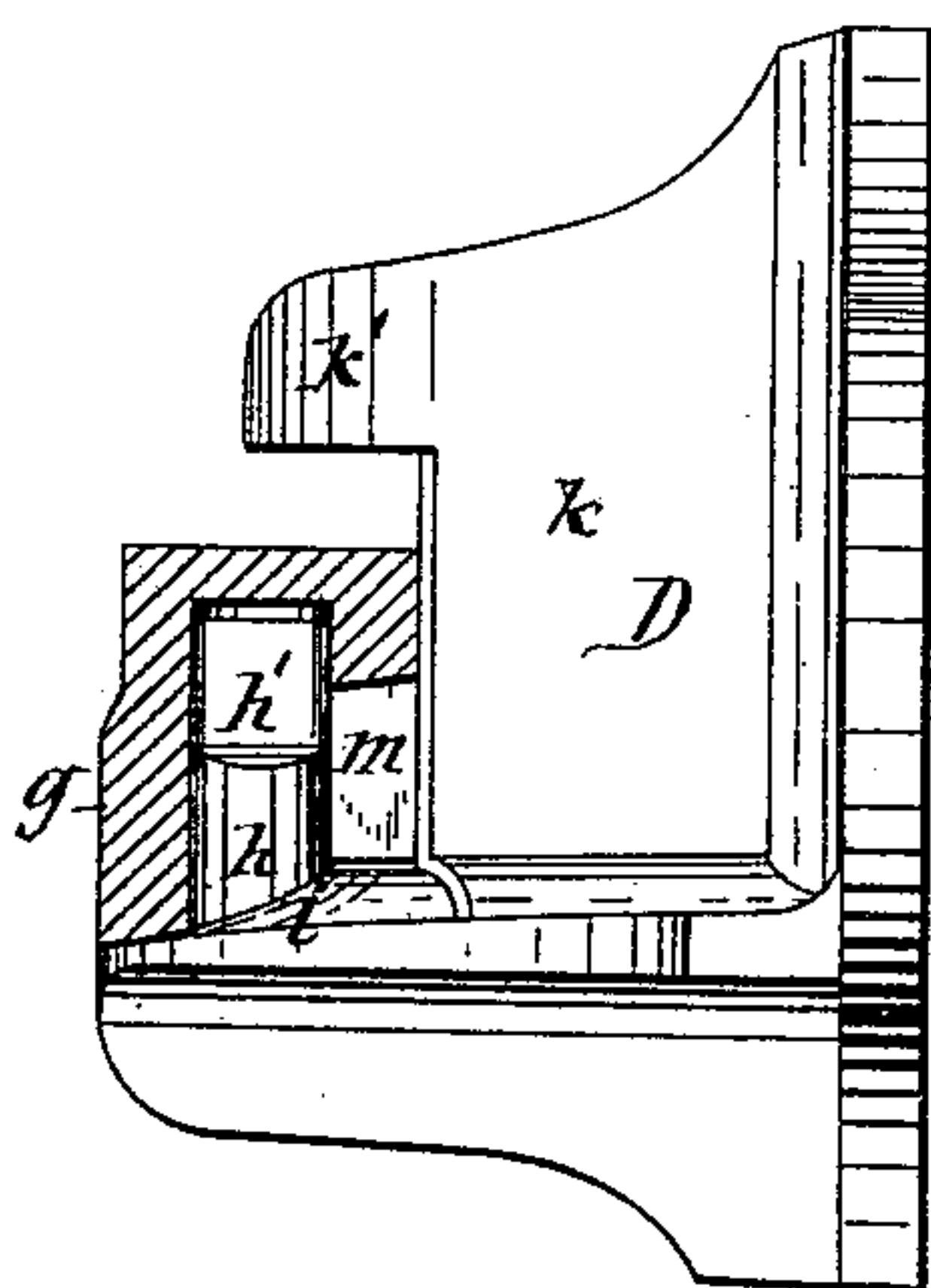
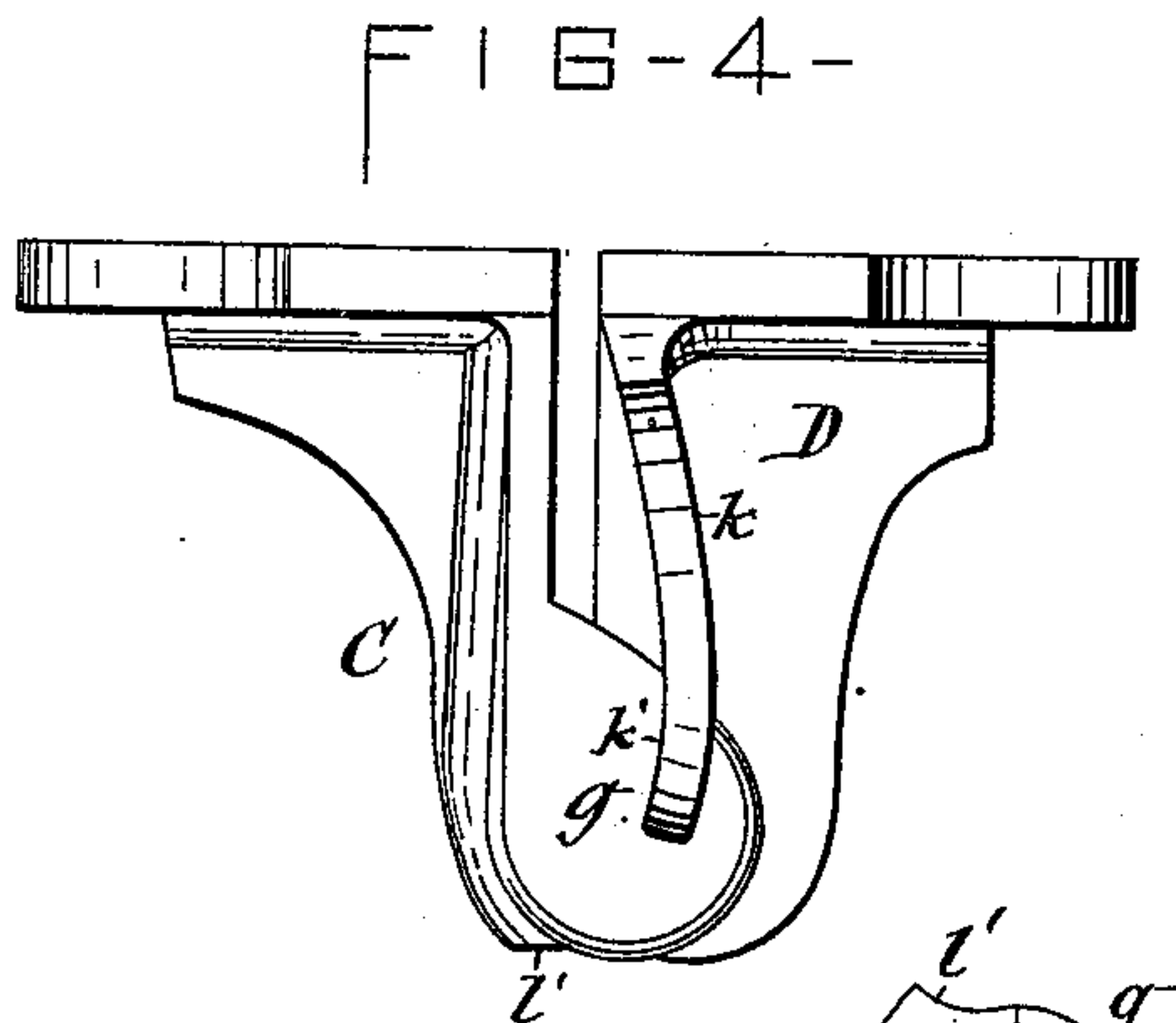
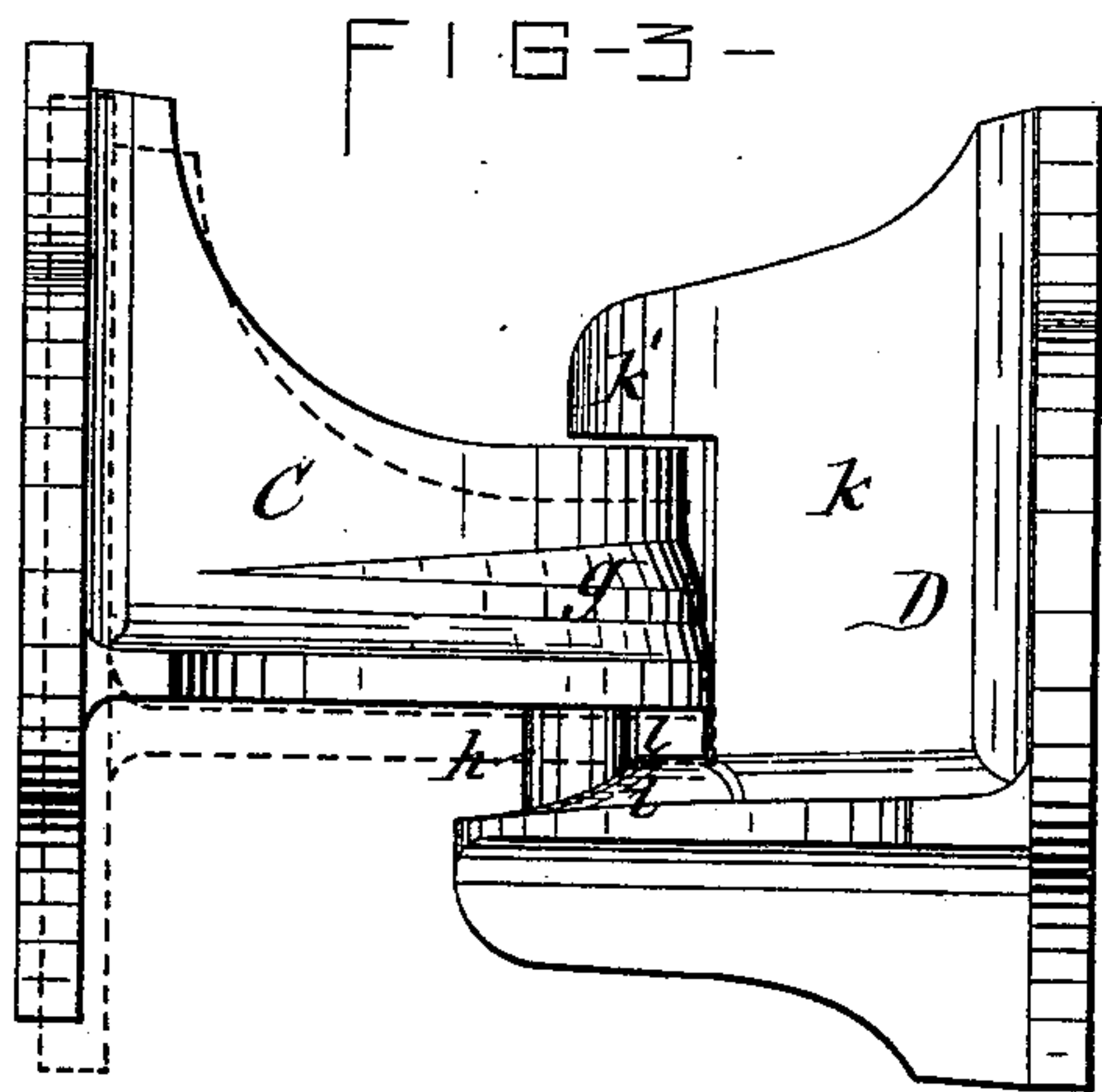
2 Sheets—Sheet 2.

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HINGE FOR AWNING BLINDS.

No. 326,967.

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ATTEST —
J. H. Gibbs

INVENTOR —
Charles Garlick
— per Duck, Lasso & Hay —
Attys —

UNITED STATES PATENT OFFICE.

CHARLES GARLICK, OF SYRACUSE, NEW YORK.

HINGE FOR AWNING-BLINDS.

SPECIFICATION forming part of Letters Patent No. 326,967, dated September 29, 1885.

Application filed February 25, 1885. (Model.)

To all whom it may concern:

Be it known that I, CHARLES GARLICK, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Hinges for Awning-Blinds, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of blind-hinges which allow the blind to be disconnected from the bottom hinge and to be swung outward vertically and suspended in an inclined position from the upper hinge, and thus convert the blind into an awning.

The invention consists in certain peculiarities of the detail construction of the component parts of the aforesaid blind-hinge, whereby the same is rendered more efficient, more reliable, and more durable in its operation, all as hereinafter more fully described, and specifically set forth in the claims.

In the annexed drawings, Figure 1 is a face view of a blind provided with my improved hinges, showing the same in its closed position. Fig. 2 is an edge view of the same in position for forming an awning. Fig. 3 is a full-sized side view of the lower hinge as constructed for blinds to be hung on brick houses, said view showing the hinge in its open position. Fig. 4 is a top view of the same in its closed position. Fig. 5 is another side view of said hinge in its closed position, with the female member of the hinge shown in cross-section to illustrate the detail construction of the same. Fig. 6 is a face view of the female member of the hinge, with the adjacent portion of the male member shown in dotted lines to illustrate the locking devices which retain the blind in its open position. Figs. 7 and 8 are detached top views of the component members of the upper hinge. Fig. 9 is a view of the back of the lower hinge, showing the passages which guide the pintle to the socket in coupling said hinge, and Fig. 10 is an inverted plan view of the socket of the female member of the clasp, showing more fully the flaring passage through the side of the socket, through which passage the pintle enters the socket in coupling and uncoupling the hinge.

Similar letters of reference indicate corresponding parts.

A and B represent, respectively, the female

and male members of the upper hinge, which is to be secured to the blind and building in such a position as to bring the top edge of the attaching-plate of the female member nearly or quite flush with the top edge of the blind, as shown in Fig. 1 of the drawings.

The member B consists of a bracket, which has a horizontal arm with a vertical pintle, *a*, projecting from the free end thereof and standing axially central in a line drawn at right angles to the plane of the leaf or attaching-plate of the bracket and from the edge adjacent to the window-jamb, said pintle being thus arranged directly in front of the joint between the blind and window casing or frame, which feature is well known to be essential to nearly all classes of hinges. Around the base of the gudgeon *a*, I provide the arm of the bracket B with a circumferential flange, *b*, extending around the base of the pintle, so as to afford a bearing for that portion of the arm of the hinge which has the eye *e*, by which it is hung on the pintle. The extension of said bearing around the pintle forms supports at opposite sides of the pivot of the blind while swinging the same in a horizontal plane, in the manner of an ordinary blind or shutter, thus obviating the lateral strain heretofore imparted to hinges designed to afford vertical as well as horizontal swinging movement. The top of the arm, which carries the pintle *a*, I provide with a vertical rib, *c*, back of and remote from the pintle, which rib is curved upward at the end adjacent to the attaching-plate of said bracket, as shown at *c'*. This rib constitutes an elongated secondary bearing, on which the female member of the hinge is fulcrumed when swinging the blind in a vertical plane, to convert the same into an awning, as hereinafter explained.

The female member of the aforesaid upper hinge consists of a bracket, A, having a horizontal arm terminating with an eye, *e*, by which it is hung on the pintle *a*, as aforesaid, and over the said arm is a cap, *d*, which projects over the rib *c* of the bracket B, so that when swinging the bottom of the blind vertically or outward from the building the aforesaid cap *d* is caused to ride on the upwardly-curved portion *c'* of the rib *c* at or near its junction with the attaching-plate of the bracket B. This secondary bearing of

the brackets raises the eye *e*, or free end of the bracket A, from that of the bracket B, as illustrated in Fig. 2 of the drawings, and simultaneously causes the bracket A to slide 5 bodily outward from the bracket B, thus carrying the upper end of the blind outward from the jamb of the window-casing and lowering only the inner edge sufficient to prevent the outer edge from impinging the jamb. The 10 blind being maintained at nearly or quite a uniform elevation during its said movement, allows the blind to be fitted quite closely to the jamb. The arm of the female bracket A is additionally supported by a vertical flange, 15 *f*, under said arm. This flange *f* bevel or arrange obliquely from the attaching-plate of the bracket toward the eye *e*, as represented by the dotted line 1 1 in Fig. 8 of the drawings. The space between the flange *f* and eye 20 *e* is equal to the width of the bearing *b* around the base of the pintle, and this arrangement facilitates the hanging of the blinds, as the eye *e* can be guided to the pintle *a* by laying the flange *f* against the bearing *b*, and sliding it along toward the pintle *a*.

C and D designate, respectively, the female and male members of the lower hinge.

The male member consists of a bracket, D, having a horizontal arm or projection, from the 30 free end of which projects vertically the pintle *h h'*, the base *h* of which is cylindrical, and the upper part, *h'*, is flattened. The aforesaid horizontal arm of the bracket D is formed with a spirally-inclined flange, *i*, around the base 35 of the pintle, which flange serves as a bearing for the base of the socket or cap *g* of the female member C of the hinge, and back of the pintle *h h'* the bracket is re-enforced by a bar or flange, *k*, which projects from the leaf or 40 attaching-plate of the bracket toward the pintle and above the base of the same, and is also made to perform other functions, hereinafter described.

The female part of the lower hinge consists 45 of a bracket, C, having an arm terminating with a socket or cap, *g*, by which it is pivoted on the pintle *h h'*. The bottom of the said cap is formed with an inclined bearing by which it rides on the inclined bearing *i* 50 around the base of the pintle. The travel of one of said bearings upon the other, while swinging the blind horizontally toward its open position, exerts a counter-pressure sufficiently to cause the blind to automatically 55 swing back to its closed position in case it is neglected to swing the blind outward sufficient to cause it to become locked in its open position, as hereinafter described, thus obviating the danger of the blind being slammed 60 by the wind. The aforesaid bearings also afford to the bottom of the cap *g* an extensive wearing-surface around the base of the pintle, as best seen in Fig. 1 of the drawings. The inclined bearing of the cap *g*, riding on a corresponding inclined bearing, causes the blind to 65 be gradually lifted during its movement to an open position, and when in said position it

merely drops to the same elevation at which it was when closed. Heretofore the inclination has been made only on the bottom of the 70 cap, and the latter was caused to ride with a very small bearing on the horizontal flange around the base of the pintle. The consequence was that the aforesaid bearing was subjected to undue friction, and, inasmuch as the blind 75 remained at a uniform elevation during its swinging movement around the pivot of the lower hinge, the blind had to drop below its normal position in order to cause its back locking-hinge to engage and hold the blind in 80 its open position. The inclined bottom bearing of the cap terminates abruptly to form an offset or shoulder, *l*, and on the exterior side of the cap *g* is formed another shoulder, *l'*, which, together with the shoulder *l*, forms a 85 double lock for retaining the blind in its open position in the following manner: In swinging the blind on its pintle, the inclined bearings at the bottom of the cap *g* raise the blind until it has attained its open position, when 90 the shoulder *l'* encounters the bar or flange *k* and arrests the swinging movement of the blind, so as to prevent its collision with the side of the building, and thus obviate marring and injury to the blind. Simultaneously with 95 the engagement of the shoulder *l'* the shoulder *l* has reached the end of the inclined bearing *i*, and allows the blind to drop, and thereby throw the shoulder *l* into engagement with the side of the horizontal arm of the bracket D, 100 as illustrated in Figs. 3 and 6 of the drawings, thereby retaining the blind in its open position. The rear side of the cap *g* is provided with an opening or passage, *m*, extending into the cavity of the cap. Said opening is of a 105 size to permit the flattened portion *h'* of the pintle to pass through it when it is desired to swing the blind vertically into the position of an awning, as represented in Fig. 2 of the drawings. Heretofore the opening *m* was ex- 110 tended the entire depth of the socket or cavity of the cap, and, in order to securely retain the pintle in the cap when the flattened portion of the pintle is in coincidence with the opening *m*, the cylindrical bottom portion of 115 the pintle had to be of considerable length, and inasmuch as the blind has to be lifted a corresponding height to permit of uncoupling the hinge, a space of considerable width has to be left between the top edge of the blind 120 and the jamb of the window frame or casing. These defects I obviate by extending the opening *m* only part way the depth of the cavity of the cap *g*, thereby allowing both ends of the pintle to retain a hold in the cap when the 125 flattened portion *h'* is in range with the said opening, as represented in Fig. 5 of the drawings. Furthermore, the inclination of the bearing *i* lengthens the cylindrical part *h* of the pintle and reduces the flattened part *h'* 130 thereof correspondingly, and consequently the uncoupling of the hinge requires less lift of the blinds. Since the opening *m* is likewise in coincidence with the flattened portion of

the pintle when the blind is swung horizontally on the pintle into an open position, as shown in Fig. 3 of the drawings, the aforesaid pintle is liable to enter said opening when raising the blind to close it, unless the lateral movement of the cap is prevented. No provision has hitherto been made to guard against said accidental displacement of the pintle from the socket or cap in hinges of this class, and in consequence of this the flattened part of the pintle in many instances was caught in the opening *m* and either prevented further swinging movement of the blind or broke one or both of the parts caught or interlocked, as aforesaid. To guard against such accidents, the bar or flange *k* is made to serve the additional function heretofore referred to—*i. e.*, to prevent the lateral movement of the cap by the abutment thereof against said bar or flange, as illustrated in Fig. 3 of the drawings. The lift of the blind is limited by an extension, *k'*, of the bar *k* over the cap *g*. In order to facilitate the coupling of the female part from the male part of the lower hinge, I form the opening *m* flaring, as shown in Fig. 10 of the drawings, and provide the backs or attaching-plates of the brackets C and D with openings *n n* and guide-walls *o o*, converging to the opening *m* of the cap *g*, as represented in Fig. 9 of the drawings.

The pintle *h h'* and cap *g*, I set over the vertical edges of the attaching-plates of the brackets C and D, sufficiently to leave a space between the said edges when the blind is in a closed position, as represented in Fig. 4 of the drawings, thereby permitting of having a corresponding space between the vertical edge of the blind and adjacent jamb of the casing, and thus obviating clogging or binding of the blind by paint and by swelling from moisture. Furthermore, the aforesaid arrangement of the pintle and cap maintain the edge of the blind true with the jamb of the casing when the blind is swung open.

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

1. The combination, with the bracket B, and bracket A pivoted thereon to swing in a vertical plane, of an elongated secondary bearing on the bracket B, back of the pivot and curved upward, and a fulcrum on the bracket A, riding on said secondary bearing, whereby the top of the blind is carried outward from the jamb when swinging the blind in a vertical plane, substantially as set forth.

2. The combination of the bracket B, formed

with the upwardly-projecting rib *e*, and the bracket A, formed with the cap *d* over the rib *e*, substantially as and for the purpose set forth. 60

3. The combination, with the bracket B, provided with the pintle *a*, and the bracket A, provided with the eye *e*, of the guide-flange *f*, for facilitating the coupling of the hinge, substantially as set forth. 65

4. In combination with the bracket C, provided with the cap *g*, the bracket D, provided with the pintle *h* and re-enforced by the bar *k*, projecting from the attaching-plate of the bracket above the base of the pintle, substantially as described and shown. 70

5. The combination of the bracket D, provided with the pintle *h*, and with the vertical bar *k* back of said pintle, and the bracket C, having the cap *g*, provided with the locking-shoulder *l* on the bottom of the cap and the secondary locking-shoulder *l'* on the side of the said cap to engage the bar *k*, substantially as and for the purpose specified. 75

6. In combination with the bracket C, having the cap *g*, provided with the passage *m*, and the bracket D, having the pintle *h* formed with a flattened portion, *h'*, adapted to pass through the said passage, the bar *k* on the bracket D, and abutting against the cap *g* to prevent lateral movement thereof and disengagement from the pintle *h* when the blind is in an open position, substantially as described and shown. 80

7. The combination, with the bracket B, provided with the pintle *a*, of a fulcrum on said bracket back of the pintle and formed with an upward curvature, and the bracket A, hung on said pintle and provided with a bearing on the upward curvature of the aforesaid fulcrum, whereby the top of the blind is carried outward from the jamb, substantially as set forth. 85

8. The combination, with the bracket B, provided with the pintle *a*, of the rib *e*, extending to the attaching-plate of said bracket and formed thereat with the upward curvature *e'*, and the bracket A, provided with the eye *e*, and with the cap *d*, by which latter it rides on the curved portion *e'* of the rib *e*, substantially as described and shown. 100

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga and State of New York, this 19th day of February, 1885.

CHARLES GARLICK. [L. S.] 105

Witnesses:

FREDERICK H. GIBBS,
WM. C. RAYMOND.