

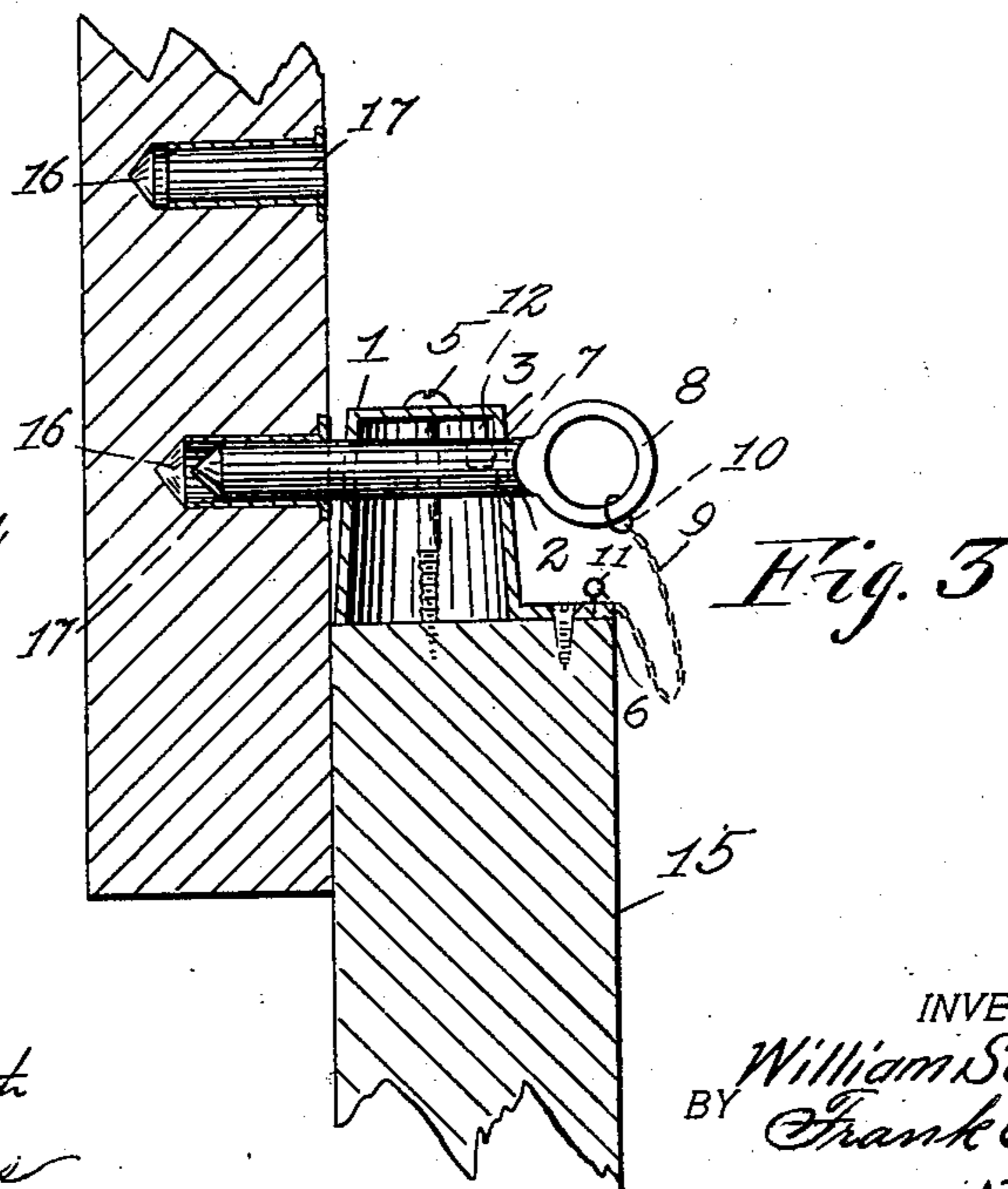
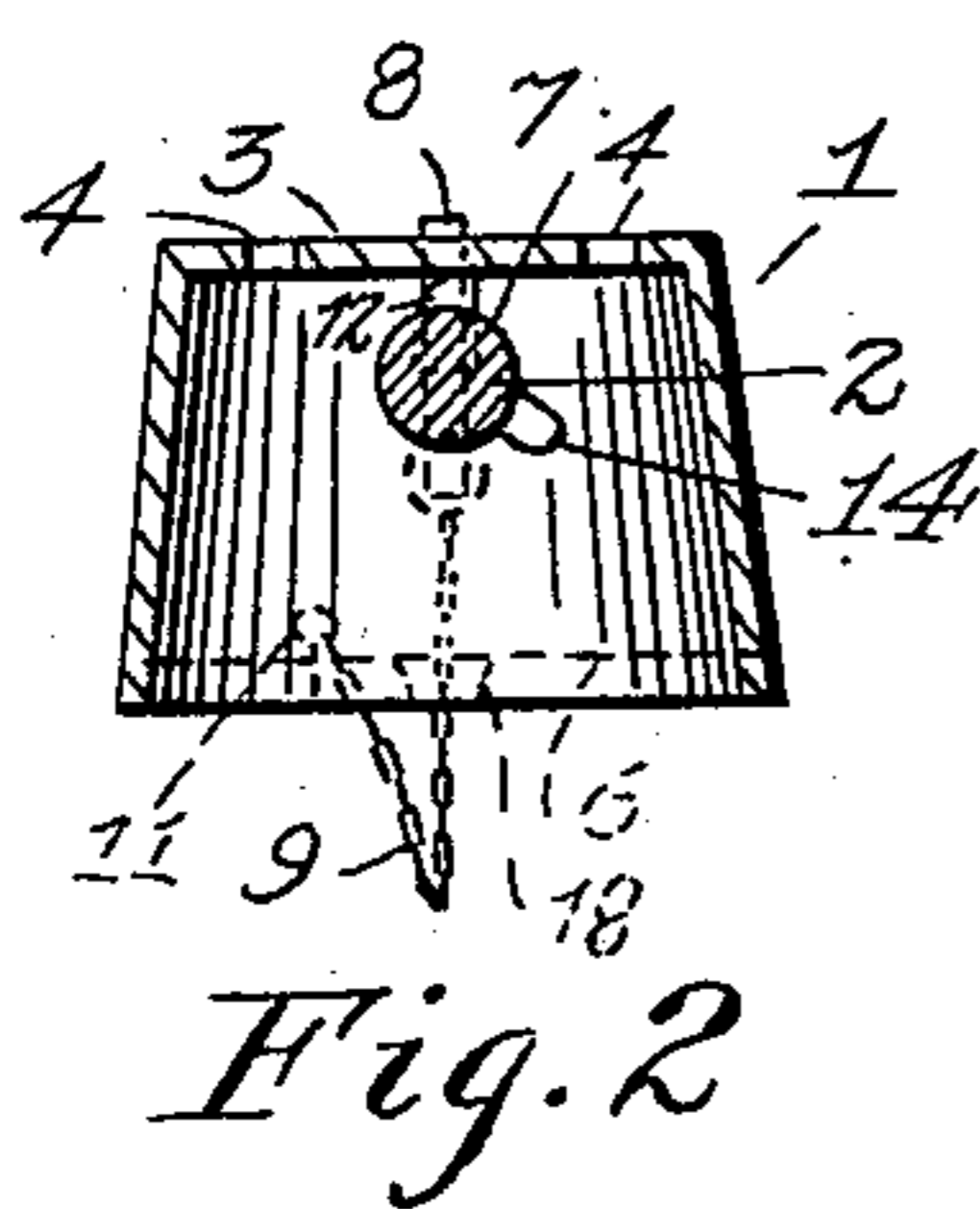
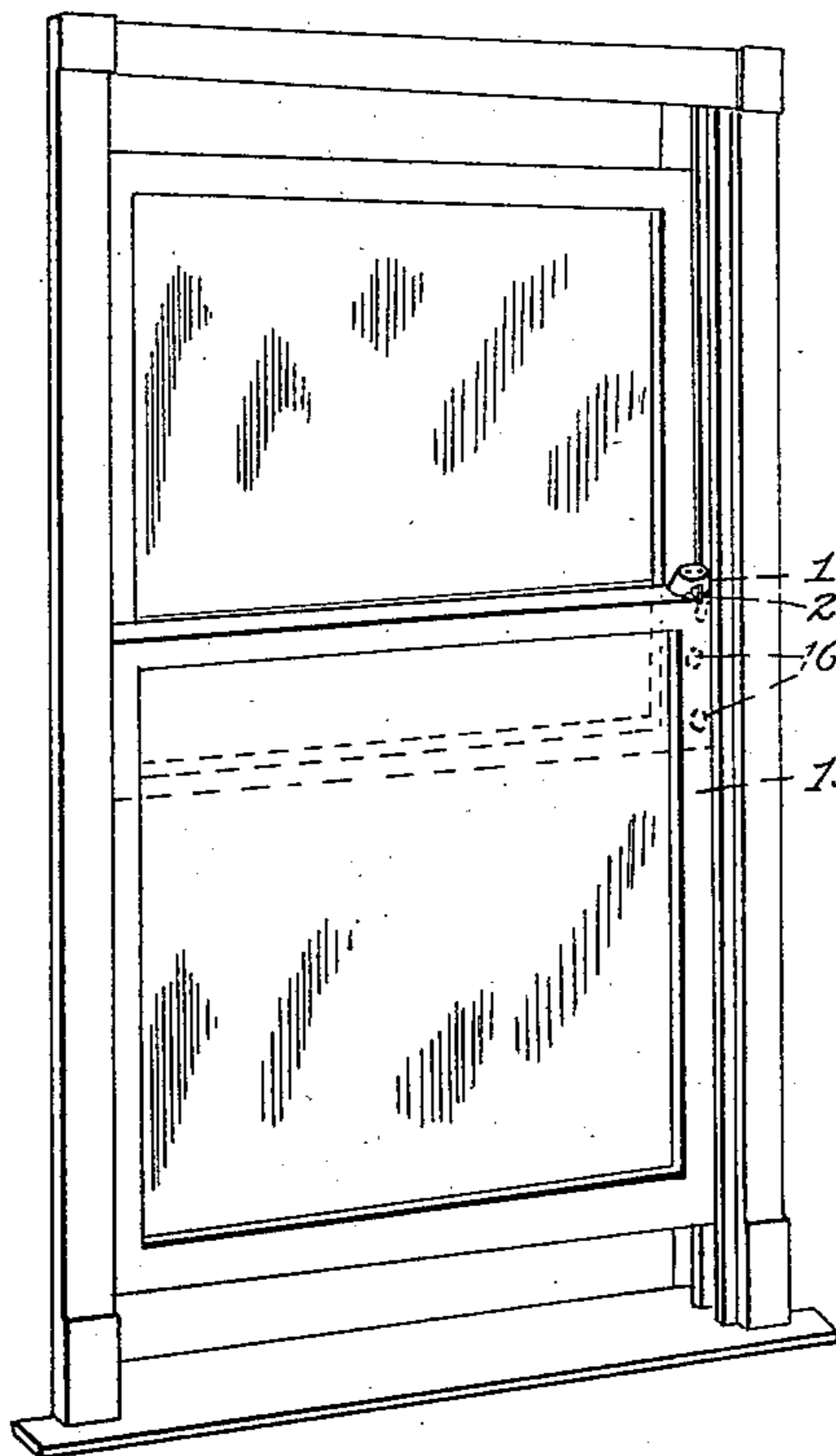
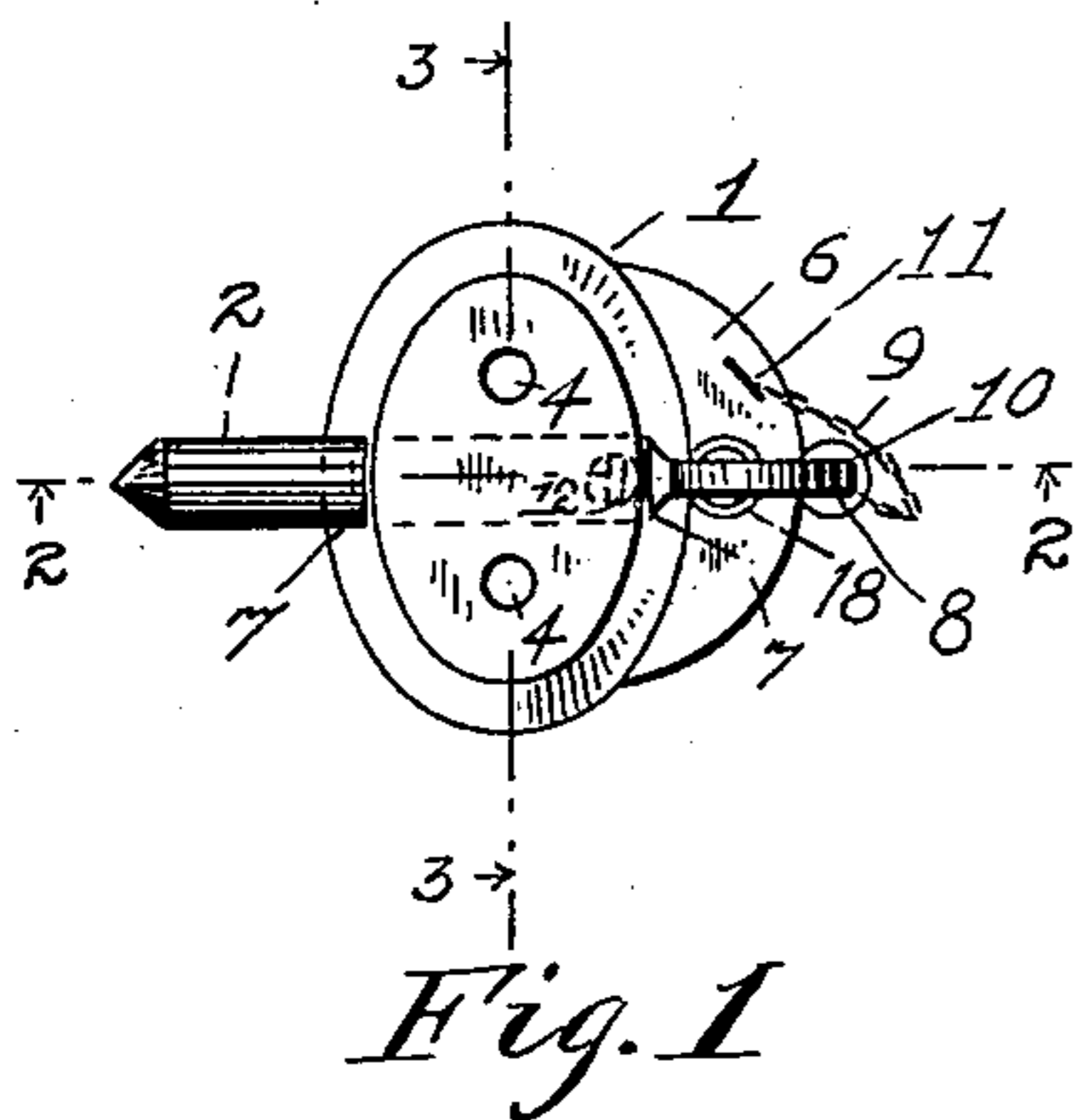
No. 698,742.

W. SCHARNWEBER.
SASH LOCK.

Patented Apr. 29, 1902.

(Application filed Aug. 6, 1901.)

(No Model.)



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WILLIAM SCHARNWEBER, OF SEATTLE, WASHINGTON, ASSIGNOR OF ONE-HALF TO ROBERT FLEMING, OF SEATTLE, WASHINGTON.

SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 698,742, dated April 29, 1902.

Application filed August 6, 1901. Serial No. 71,056. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SCHARNWEBER, a citizen of the United States of America, and a resident of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification.

My invention relates to improvements in sash-locks, and has special reference to a device of this class adapted to secure together the upper and lower sash of a window.

Among numerous objects obtained by this invention and readily understood from the following specification and accompanying drawings, included as a part thereof, is the production of a simple and efficient sash-lock embodying essential features of adaptability and utility which render it especially useful when desirable to securely fasten windows in open position for ventilation, and important forms of construction which reduce the cost of production, simplify manipulation, and render the article of neat and pleasing appearance.

With reference to the drawings filed herewith and embodying like reference characters for corresponding parts throughout, Figure 1 is a plan view of the device with the bolt in the case. Fig. 2 is a transverse section of the case, taken longitudinally the bolt on line 2 2, Fig. 1. Fig. 3 is a longitudinal section of the case on line 3 3, Fig. 1, indicated in position on the window and portions of the sash in relative position; and Fig. 4 is a perspective view of a sash window-frame with the sash open for ventilation and the improved sash-lock in relative position thereon on reduced scale.

This invention includes a case 1, corresponding to a standard, and a freely movable and removable bolt 2, normally associated with said case in a suitable housing 3, formed in the upper portion thereof.

As now considered, case 1 comprises a cup-shaped shell-like structure, preferably rendered elliptical in horizontal section, with the wall tapered inwardly toward the closed end, which is rendered substantially flat on the exterior surface and is provided with a screw-aperture 4, adjacent opposite termina-

tions of the major diameter adapted to receive screws, as 5, by which the lock is secured in place. The exterior surface of the wall of the case is rendered substantially smooth throughout, and a laterally-projecting lug 6 is preferably formed integral with said wall, on the minor diameter thereof, at the open end of the case, and transversely-disposed apertures 7 are suitably formed in opposite portions of said wall on the minor diameter adjacent the closed end to provide separated narrow bearings for bolt 2, which serve to rigidly support same, as due to limited length of the bearings and wide separation thereof incidental to the particular formation of case 1 heretofore set forth. The bolt 2 is rendered round and somewhat longer than the width of case 1, and bearings 7 are of suitable size and form to receive same snugly but freely, so as to permit of rotation thereof and for longitudinal movement, as desired. In the present embodiment this bolt is formed with a conical end to facilitate placement, and a suitable annular head 8, made integral therewith and adapted to afford easy grasp of the thumb and forefinger and ready attachment of a suitable flexible connection, as a chain 9, by which the bolt is secured to case 1, and thereby insured from loss by misplacement when removed therefrom and maintained in handy position for replacement in said case, as desired. As now considered, chain 9 is suitably connected to the rim of head 8 by a ring 10, which has free movement along said rim and in combination therewith prevents the chain from becoming tangled as it slides on the rim in conformity with the varying positions of the bolt as removed and replaced, and the opposite end of said chain is suitably secured to lug 6, by means of an eyebolt 11, having the shank secured in a suitable aperture in said lug, but free to turn therein, and thereby made to act as a swivel.

In the preferred embodiment bolt 2 is formed with a laterally-projecting lug 12, placed adjacent the head 8 and rendered with a suitable cam-surface on the end adapted to bind upon a suitable fixed opposing surface when the bolt is properly rotated, and thereby made to clamp same in bearings 7 and prevent ro-

tation of the bolt by pincers applied at the pointed end or jarring of the window-sash. As now considered, this cam-lug is separated from the head of the bolt sufficiently to pass adjacent bearing 7 when the bolt is in the housing, and is of suitable length to cause its end surface to lie in binding contact with the under surface of the closed end of case 1 when the bolt is properly turned. The bearing 7 adjacent lug 6 is suitably notched radially by an indenture 14 to permit free passage of cam-lug 12, and this indenture is preferably disposed at an angle of substantially forty-five degrees to the left of a perpendicular diameter of said bearing-surface in the bottom thereof to bring it in favorable position for a clear view when on the window to facilitate placement of the bolt, and the said cam-lug is preferably disposed on the bolt substantially in line with the flat of head 8, so as to bring the thumb of the operator in convenient and natural position for inserting the bolt and to exert clamping pressure, as turning same to the right after placement, when the flat of said head will then lie substantially perpendicular for ready grasp in withdrawing or removing the bolt. To secure the case of the lock in place, suitable wood-screws are passed through respective apertures 4 and a suitable aperture 18 in lug 6.

As now considered, the bolt 2 is composed of comparatively soft metal, while cam-lug 12 is preferably made of hard metal and secured to the bolt in a suitably-formed recess therein provided at the desired point, and thereby prolongs the usefulness of the device over a cam-surface of soft metal.

In use on ordinary double windows this sash-lock is fixed on the top surface of the lower sash, preferably over the right-hand stile, as 15, Figs. 3 and 4, so as to lie opposed to the like stile of the upper sash, in which recesses, as 16, are formed at convenient points in the inner surface to receive the end of bolt 2 when the said sash are both closed or either one or both thereof opened a predetermined distance. In each of said recesses a suitable metallic bushing 17 of any suitable or ordinary construction is placed to protect the wall thereof from wear.

By use of the lock as above described both sash can be locked together either when closed or partly open, and in the latter case when the lock is applied to counterbalanced sash both sash are operable simultaneously to vary the relative width of the openings at top and bottom of the window to a nicety, Fig. 4, with-

out unlocking the sash from each other. Furthermore, it will be understood that the windows can be left open sufficiently for ventilation and still be locked against house-breakers, and the lock thus provided is rendered proof against being unlocked from the exterior by pincers or the like by the clamping of the cam-lug. When inside blinds are in use, bolt 2 is removed entirely from case 1 when the window is left unlocked and it is desirable to close the blinds; but in ordinary use the bolt is simply withdrawn sufficiently to clear it of the upper stile when desired to unlock the window, though in either case the chain serves to prevent its loss or disconnection from case 1.

In producing a case of the form disclosed I combine great strength and rigidity with minimum weight, and thereby reduce the cost of producing a superior article the base of which has considerable length compared with width, and thereby affords a substantially widespread continuous bearing-surface while still limiting the width to the usual thickness of stiles of ordinary windows, and the upward taper of the wall renders the case of neat and pleasing appearance and also disposes the bolt-bearings inward from the base, and thereby renders the case more secure against being tipped by lateral pressure exerted on the bolt in moving the sash simultaneously. Furthermore, the locking device of the bolt is completely protected by the case from being tampered with when the bolt is locked and the arrangement of locking is also hid from view.

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

A sash-lock comprising a casing having two alined apertures near the upper end thereof through its body, a slot leading at an angle from the outer aperture, a lug formed integral with said casing to assist in holding the same on the sash, a bolt adapted to enter said casing and rest in the alined apertures thereof and a cam carried by said bolt adapted to enter the casing through the slot and when the bolt is rotated to impinge the under side of the top of the casing and thus be held rigidly therein.

Signed at Seattle, Washington, this 13th day of July, 1901.

WILLIAM SCHARNWEBER.

Witnesses:

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