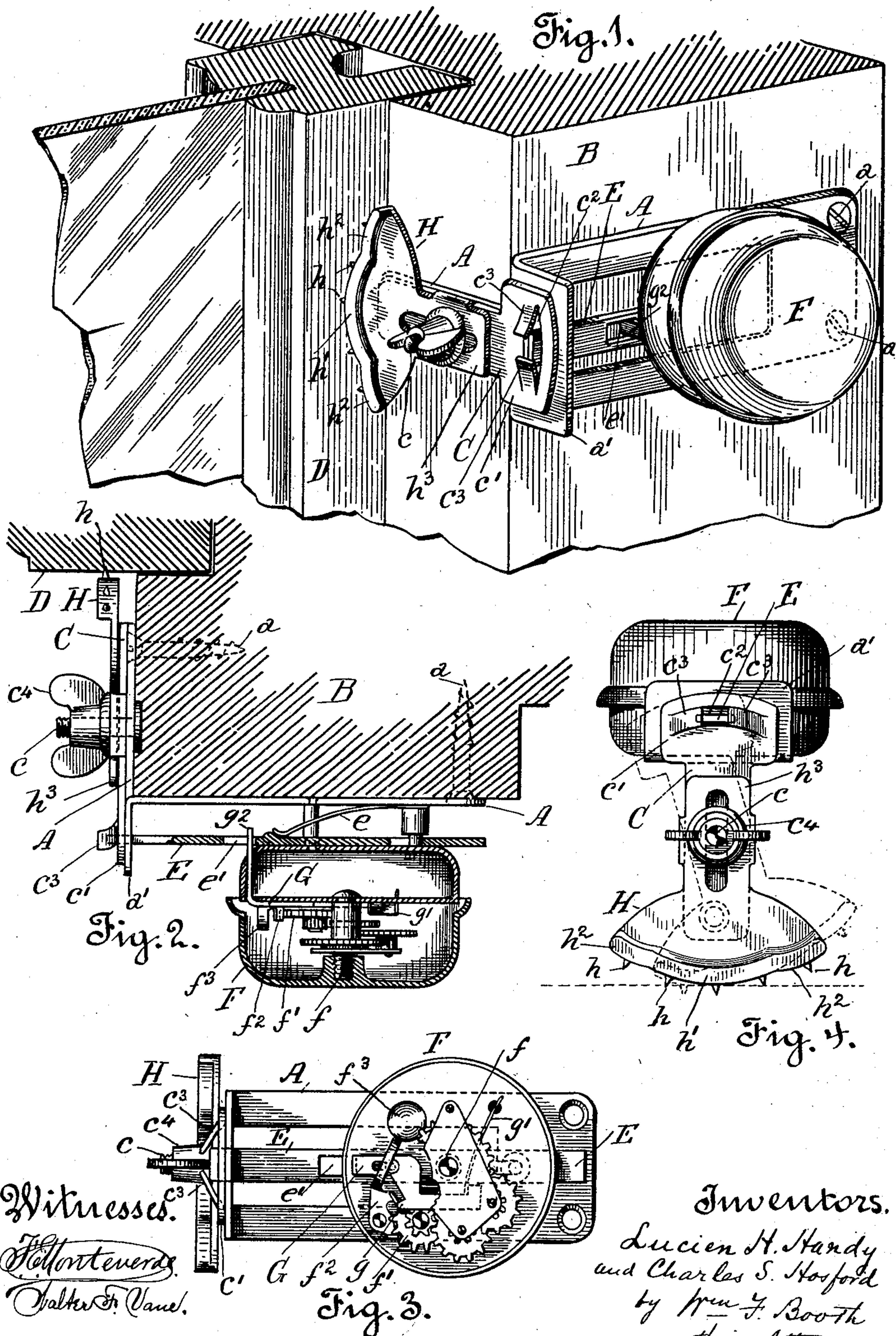


L. H. HANDY & C. S. HOSFORD.
BURGLAR ALARM AND SASH LOCK.

APPLICATION FILED NOV. 21, 1902.

NO MODEL.



Witnesses.
J. M. Monteverde
Walter E. Vane.

Inventors.
Lucien H. Handy
and Charles S. Hosford
by Wm. F. Booth
their Attorney

UNITED STATES PATENT OFFICE.

LUCIEN H. HANDY, OF SAN FRANCISCO, AND CHARLES S. HOSFORD, OF BERKELEY, CALIFORNIA, ASSIGNORS TO GOLDEN GATE NOVELTY MANUFACTURING CO., OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

BURGLAR-ALARM AND SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 735,872, dated August 11, 1903.

Application filed November 21, 1902. Serial No. 132,247. (No model.)

To all whom it may concern:

Be it known that we, LUCIEN H. HANDY, residing in the city and county of San Francisco, and CHARLES S. HOSFORD, residing at Berkeley, Alameda county, State of California, citizens of the United States, have invented certain new and useful Improvements in Burglar-Alarms and Sash-Locks; and we do hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to the class of burglar-alarms and locks particularly intended for window-sashes.

It consists in the novel construction, arrangement, and combinations of parts hereinafter fully described and claimed.

The object of our invention is to provide a simple alarm and lock for window-sashes, one which can be readily and accurately adjusted to place, which will be inconspicuous, and which will be effective in operation.

Referring to the accompanying drawings, Figure 1 is a perspective view of our device secured in place and set for operation. Fig. 2 is a top plan in part section of same. Fig. 3 is an inner face view of the device, the bell being removed. Fig. 4 is a reversed side view of same, showing in dotted lines the locking position of the tripping-lever.

A is an angle-bracket forming the carrying-plate for the several parts and constituting the means by which the device is secured to the window-casing, (represented by B.) The securing means may be of any character, (here shown as screws a ,) which pass through the extremities of the bracket-arms into the casing.

Pivoted by a pin or bolt c to the outer face of that arm of the carrying-bracket which lies at right angles to the plane of the window-sash D is a tripping-lever C, the inner end c' of which is a cam adapted by its movement about the pivotal center c to impinge on the end of and to move longitudinally a sliding set-bar E, which lies parallel with the other arm of the carrying-bracket and is slotted upon suitable studs or guides permitting such longitudinal movement. A spring e bears on the bar E and steadies and controls, though it does not effect, its movement.

The form or character of the cam impingement of tripping-lever C and set-bar E may be of any suitable nature. We consider the construction here shown a practical and simple means to effect the result. It will be seen that the end of the set-bar projects through an inwardly-extending flange a' of bracket A and that the end c' of the tripping-lever lies on the outer face of this flange and has in it a slot c^2 , the ends of said slot having the oppositely-inclined planes c^3 lying directly beyond the projecting end of the set-bar. When the tripping-lever end c' is central, the set-bar E has ample room to be projected forward in the slot c^2 without touching the inclined planes c^3 ; but when the lever end c' is rocked to either side up or down one or the other of the inclined planes comes in contact with the set-bar end, the edges of which are slightly rounded to ease the contact, and said inclined plane rides down upon and forces backwardly the set-bar.

The sliding set-bar E is the means for controlling any suitable alarm mechanism. When the bar is projected to its limit, it locks the alarm and keeps it silent. When the bar is forced back, it releases the alarm and permits it to become active. The form of alarm we here show and which we deem practical and simple consists of the ordinary gong-bell F, secured to bracket A. Within the casing or shell of this gong F is a spring, (unnecessary to show,) which spring is wound by an arbor f . The spring actuates customary gearing leading to an escapement-ratchet f^1 , operating the escapement-pawl f^2 , which carries the hammer f^3 . Within the casing of the gong is mounted to slide a locking-bar G, having a locking-detent g , which when the bar is projected comes in contact with the escapement-pawl f^2 and prevents its vibration, thus locking the alarm. When moved back, it frees the pawl of the detent, and thus permits the pawl to vibrate and the alarm to sound. A spring g' serves to retract the locking-bar G, and said bar is held projected by an arm g^2 , which projects from its forward end at right angles and enters a slot e' in the set-bar E in such position that when the set-

bar is projected and is held so by the friction of its spring e the rear wall of slot e' , engaging the arm g^2 , projects the locking-bar G and holds it projected, thereby causing its detent g to lock the alarm.

Now in order to operate the tripping-lever C by the movement of the window-sash D the other end of said lever has a means for engaging the sash in such manner that the movement of said sash will rock the lever on its pivotal center c . The best form of this engaging end is the sector-like head H , bearing against the face of the sash-stile and having such a surface, frictional or positive, as will cause it to be rocked by the sash in moving. We prefer to provide its engaging edge with the pins h , which will take positive hold of the stile. In order, further, to constitute this sector-like end a lock as well as a means for moving the tripping-lever, its engaging edge is made with a curved central portion h' , struck from the pivot c as a center, and end portions h^2 , eccentric to said pivot. Thus when set centrally the first effect of the sash movement is to rock the head H , and thereby rock lever C to actuate the alarm; but further movement of the sash when either eccentric end portion is reached results in a positive lock, for the lever C will then move no farther on account of the eccentricity of the portions h^2 . In order now to adapt this sash-engaging device to the several adjustments necessary to apply the alarm and lock to various sizes of windows and casings, said head H is best formed as a separate piece and is connected adjustably with lever C . Thus it has a shank h^3 , slotted over the pivot-bolt c , which said bolt is provided with a thumb-nut c^4 .

The adjustment and operation of our alarm and lock are as follows: The bracket A is screwed to the window-casing B . Then the thumb-nut c^4 being loosened, the sash-engaging head H is moved forward until its curved central portion h' bears firmly upon the sash-stile. Then the lever C being straight, so that its cam end c' is central, the thumb-nut c^4 is tightened up sufficiently to firmly hold the head H and lever C together and permit them to turn as one on pivot c . The alarm being wound up, the set-bar E is projected, thus through the bar G locking said alarm. Now let the sash be moved up or down. The first effect is to rock the engaging sector-head H , which rocks the lever C . The cam end of lever C , by its inclined planes, either one, according to the direction of movement, forces back the set-bar E , thus relieving the arm g^2 of locking-bar G . This bar G , under the influence of its spring, will now be retracted and will remove its detent g from the escapement-pawl and the alarm will sound and its warning will be incessant, requiring the attention of the occupant of the room to stop it. The next effect of the sash movement will be to lock said sash effectually by the eccentric portion h^2 of the sector-head H ; but the alarm

will continue until the set-bar is projected again.

A feature of decided advantage in this device is the angular carrying-bracket A , fitting the walls of the window-casing, as shown. It lies close and flat against these walls, enabling the parts carried by its arm at right angles to the window-sash to be as inconspicuous as possible, while the alarm-bell may be set far enough back to be wholly out of sight from without. The operating parts on the first-named arm, even if observed by the intruder, may well be mistaken for some sort of lock or fastening alone which may in his opinion be broken by extreme pressure on the sash. This may lead him to the attempt, whereas if he saw the alarm-bell he might turn his attention to other possible entrances.

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

1. A burglar-alarm for window-sashes comprising a pivoted tripping-lever having a head adapted to engage the stile of the sash whereby the movement of the sash will rock the lever, an alarm mechanism, a set-bar, connections by which the set-bar locks and releases the alarm mechanism, and a cam on the tripping-lever adapted to cooperate with the set-bar to release the alarm mechanism.
2. A burglar-alarm for window-sashes comprising a pivoted tripping-lever disposed at right angles to the plane of the sash, a head adapted to engage the sash-stile whereby the movement of the sash will rock the lever, an alarm mechanism, a slidable set-bar disposed in a plane parallel with that of the sash, connections by which the set-bar locks and releases the alarm mechanism, and a cam on the inner end of the tripping-lever for sliding said set-bar to release the alarm mechanism.
3. A burglar-alarm for window-sashes comprising a pivoted tripping-lever having a sector-head concentric with the pivotal center of the lever and adapted to engage the sash-stile whereby the movement of the sash will rock the lever, an alarm mechanism, a set-bar adapted by its movement to lock and to release the alarm mechanism and a cam on the tripping-lever cooperating with the set-bar to release the alarm mechanism.
4. A burglar-alarm for window-sashes comprising a pivoted tripping-lever disposed at right angles to the plane of the sash and having a sector-head concentric with the pivotal center of the lever, and adapted to engage the sash-stile whereby the movement of the sash will rock the lever, an alarm mechanism, a slidable set-bar disposed at right angles to the tripping-lever and adapted to control the alarm mechanism, and a cam end on the tripping-lever adapted by contact with the set-bar to actuate it to release the alarm mechanism.
5. A burglar-alarm for window-sashes comprising a pivoted tripping-lever disposed at

right angles to the plane of the sash and having a sector-head concentric with the pivotal center of the lever, and adapted to engage the sash-stile whereby the movement of the sash will rock the lever, an alarm mechanism, a slidable set-bar disposed at right angles to the tripping-lever and adapted to control the alarm mechanism, and a slotted inner end of said tripping-lever having the inclined planes adapted by contact with the set-bar to actuate it to release the alarm mechanism.

6. A burglar-alarm and sash-lock comprising a pivoted tripping-lever having a sector-like head formed with a central portion concentric to the pivotal center of the lever and with ends eccentric thereto, said head being adapted to engage the stile of the window and by the movement of the latter to rock the lever, an alarm mechanism controlled by the rocking lever, means whereby the alarm will be sounded when the concentric portion of the head is engaged by the stile of the window and means whereby the window will be locked against further movement when either of the eccentric portions of the head are engaged by said stile.

7. A burglar-alarm for window-sashes comprising a pivoted tripping-lever having a head adapted to engage the stile of the sash whereby the movement of the sash will rock the lever, an alarm mechanism, a set-bar, connections by which the set-bar locks and releases the alarm mechanism and oppositely-disposed cam-faces on the tripping-lever cooperating with the set-bar to release the alarm mechanism when said tripping-lever is moved in either direction.

8. A burglar-alarm and sash-lock comprising a pivoted tripping-lever, having a sector-like head formed with a central portion concentric to the pivotal center of the lever and with ends eccentric thereto, said head being adapted to engage the stile of the sash and by the movement of the latter to rock the lever, an alarm mechanism, a slidable set-bar adapted to control the alarm mechanism and a cam on the inner end of the tripping-lever adapted to actuate said set-bar and to release the alarm mechanism upon the movement of said tripping-lever.

9. A burglar-alarm and sash-lock comprising a pivoted tripping-lever disposed at right angles to the plane of the sash, said lever having a sector-like head formed with a central portion concentric to the pivotal center of the lever and with ends eccentric thereto, said head being adapted to engage the stile of the sash and by the movement of the latter to rock the lever, an alarm mechanism, a slidable set-bar disposed at right angles to the tripping-lever and adapted to control the alarm mechanism, and a cam inner end of the tripping-lever adapted to engage the set-bar and to actuate it to release the alarm.

10. A burglar-alarm and sash-lock comprising a pivoted tripping-lever disposed at right angles to the plane of the sash, said lever hav-

ing a sector-like head formed with a central portion concentric to the pivotal center of the lever and with ends eccentric thereto, said head being adapted to engage the stile of the sash and by the movement of the latter to rock the lever, an alarm mechanism, a slidable set-bar disposed at right angles to the tripping-lever and adapted to control the alarm mechanism, and a slotted inner end of the tripping-lever provided with inclined planes engaging the set-bar to actuate it to release the alarm mechanism.

11. In a burglar-alarm for window-sashes, the combination of a pivoted tripping-lever, an alarm mechanism, means for controlling said alarm mechanism, means for actuating said controlling means by the movement of the tripping-lever, and a head slidable on and adjustably connected with the tripping-lever and adapted to be set up to engagement with the stile of the sash, whereby said tripping-lever is operated by the movement of the sash.

12. In a burglar-alarm for window-sashes, the combination of a pivoted tripping-lever, an alarm mechanism, means for controlling said alarm mechanism, means for actuating said controlling means by the movement of the tripping-lever, and a sector-head concentric with the pivotal center of the lever, said head slidable on and being adjustably connected with the tripping-lever and adapted to be set up to engagement with the stile of the sash, whereby said tripping-lever is operated, by the movement of the sash.

13. In a burglar-alarm and sash-lock, the combination of a pivoted tripping-lever, an alarm mechanism, means for controlling said alarm mechanism, means for actuating said controlling means by the movement of the tripping-lever, and a sector-like head having a central portion concentric with the pivotal center of the lever and ends eccentric thereto, said head being slidable on and adjustably connected with the tripping-lever and adapted to be set up to engagement with the sash-stile, whereby said tripping-lever is operated by the movement of the sash.

14. A burglar-alarm for window-sashes comprising a pivoted lever, a sector-head concentric with the pivotal center of the lever, and slidable on and adjustably connected with the lever adapting it to be set up to engagement with the sash-stile, whereby it rocks said lever by the movement of the sash, an alarm mechanism, a slidable set-bar to control said alarm mechanism, and means on the inner end of the tripping-lever to actuate said set-bar to release the alarm mechanism.

15. A burglar-alarm and sash-lock comprising a pivoted lever, a sector-like head having a central portion concentric with the pivotal center of the lever and ends eccentric thereto, said head being slidable on and adjustably connected with the lever adapting it to be set up to engagement with the sash-stile, whereby it rocks said lever by the movement of the sash, an alarm mechanism, a slidable

set-bar to control said alarm mechanism, and means on the inner end of the tripping-lever to actuate said set-bar to release the alarm mechanism.

- 5 16. In a burglar-alarm and sash-lock the combination of an angle-bracket to be secured to the window-casing with one arm at right angles to the plane of the sash and the other arm parallel with said plane, an alarm mechanism carried by the parallel arm, a tripping-lever carried by the right-angle arm and having means for engaging the sash-stile, where-
10 by said lever is actuated, and suitable means for effecting the alarm by the movement of
15 said lever.

17. A burglar-alarm and sash-lock consisting of the angle-bracket, the tripping-lever pivoted to one arm of said bracket, said lever having at one end a head engaging the sash-
20 stile and at the other end a cam, an alarm mechanism on the other arm of the bracket,

and a slidable set-bar on said arm adapted to control the alarm mechanism and to be actuated by the cam end of the tripping-lever.

18. A burglar-alarm and sash-lock consisting of the angle-bracket, the tripping-lever pivoted to one arm of said bracket, and having at its inner end a cam, the sector-like head at the other end of the lever and adjustably connected therewith, an alarm mechanism on the other arm of the bracket, and a slidable set-bar on said arm adapted to control the alarm mechanism and to be actuated by the cam end of the tripping-lever.

In witness whereof we have hereunto set our hands.

LUCIEN H. HANDY.
CHARLES S. HOSFORD.

Witnesses:

WALTER F. VANE,
D. B. RICHARDS.