

No. 791,970.

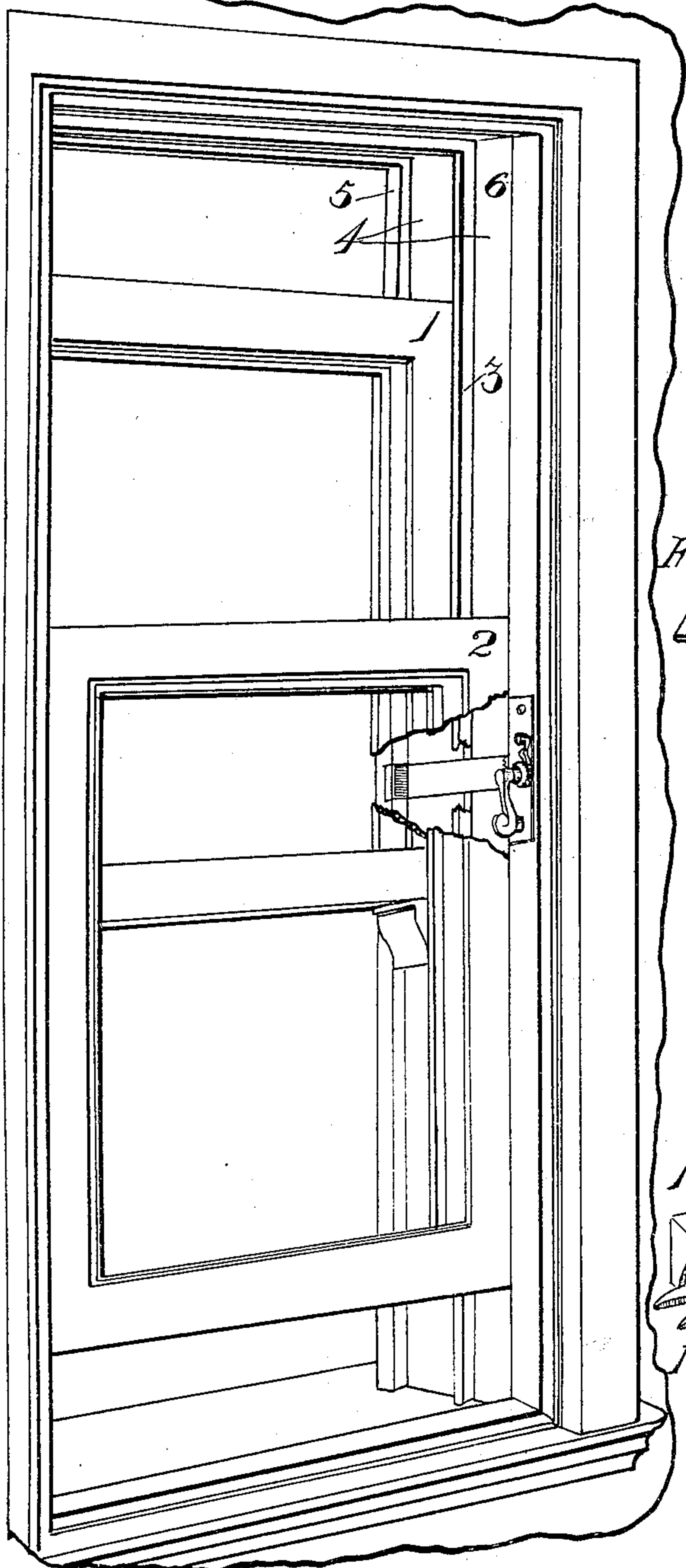
PATENTED JUNE 6, 1905.

A. WILKIE, JR.
SASH HOLDER AND FASTENER.

APPLICATION FILED JAN. 15, 1902.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES:

Oscar Thum-Sarow
Bauer Gorfinkel

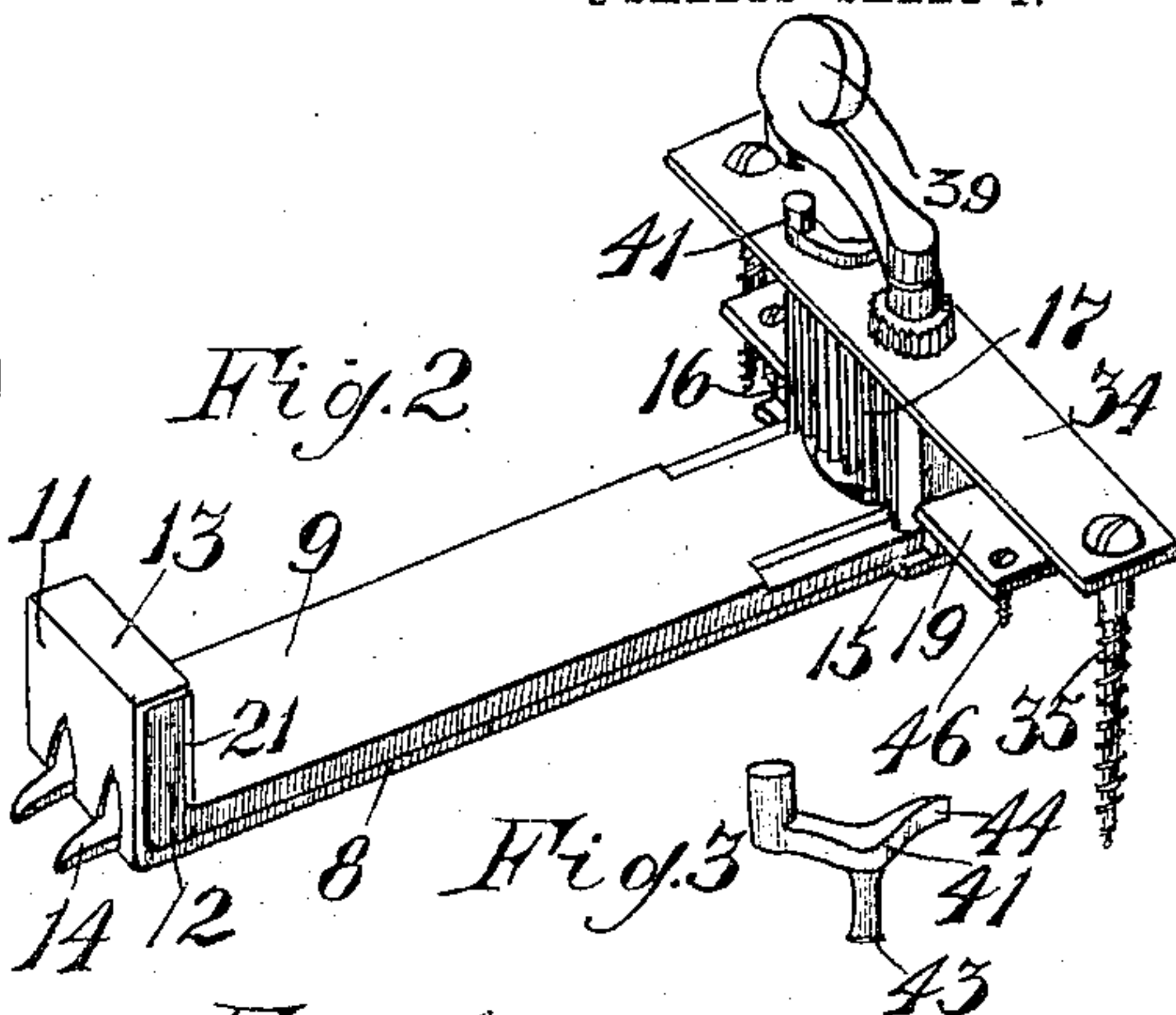


Fig. 2.

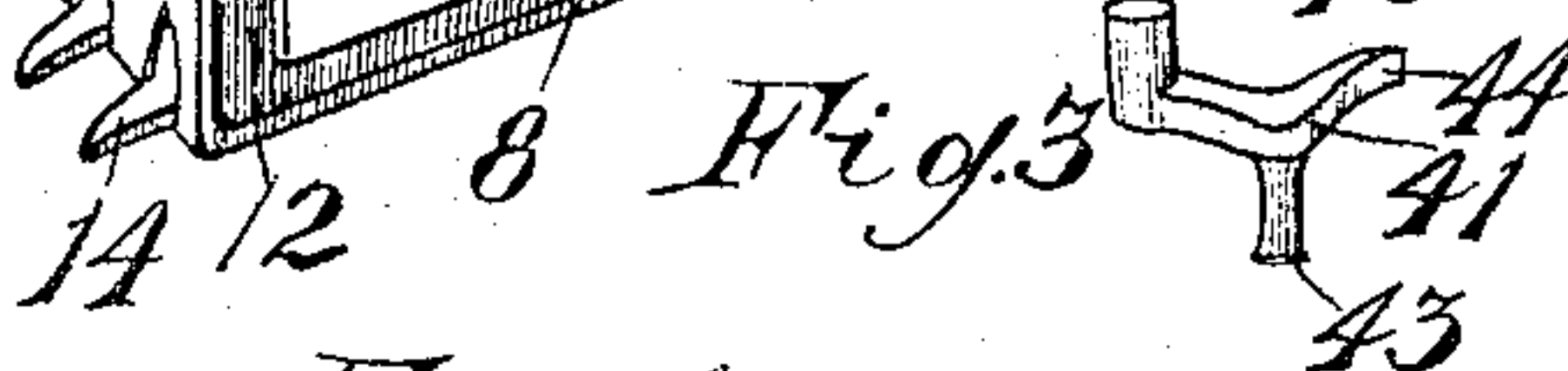
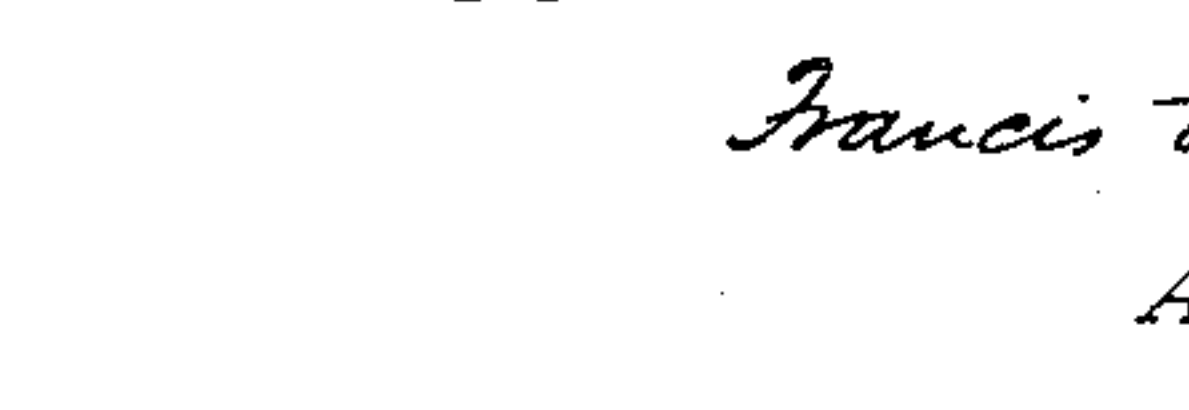
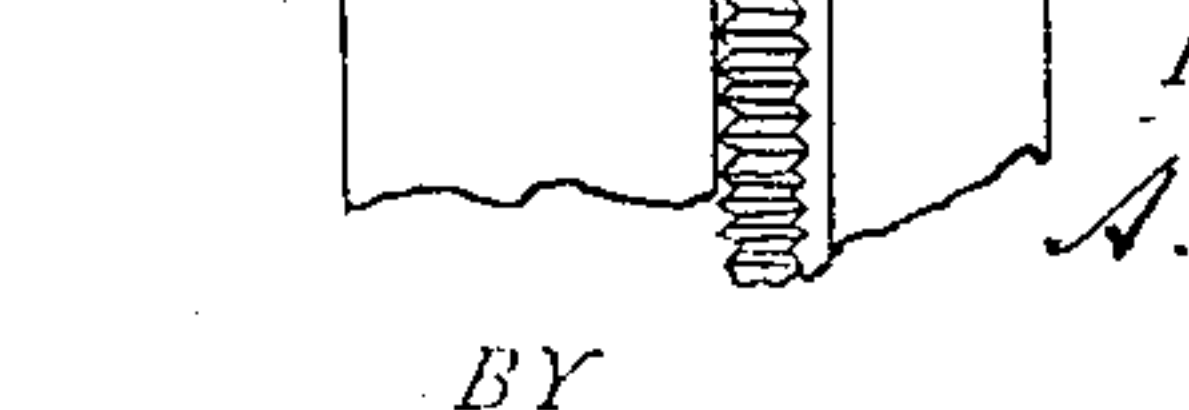
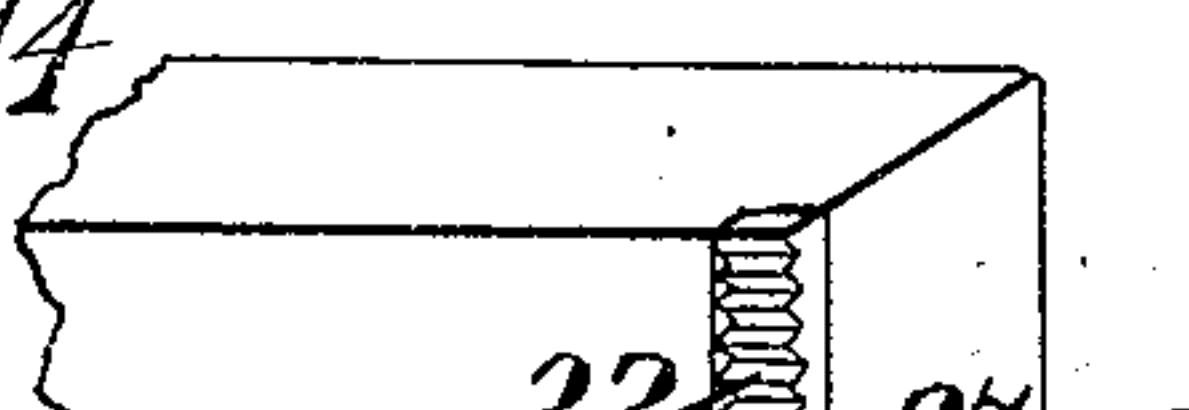
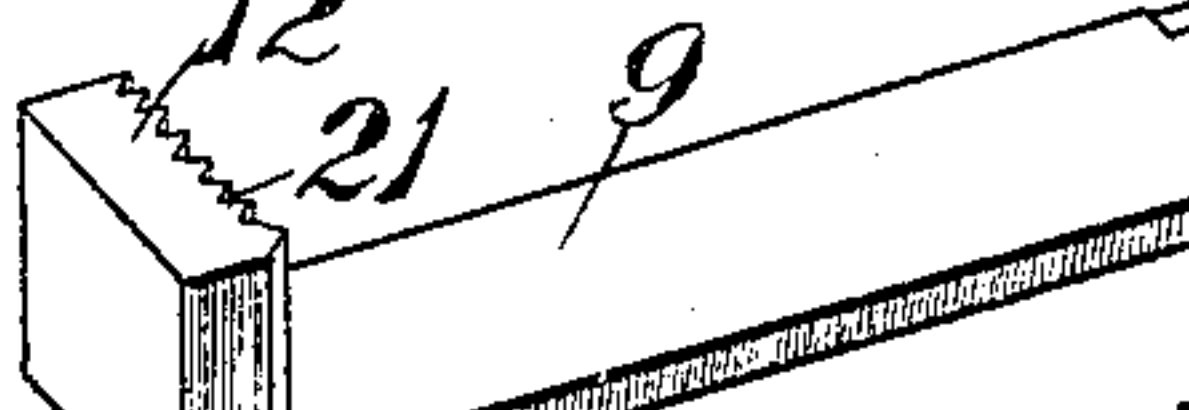
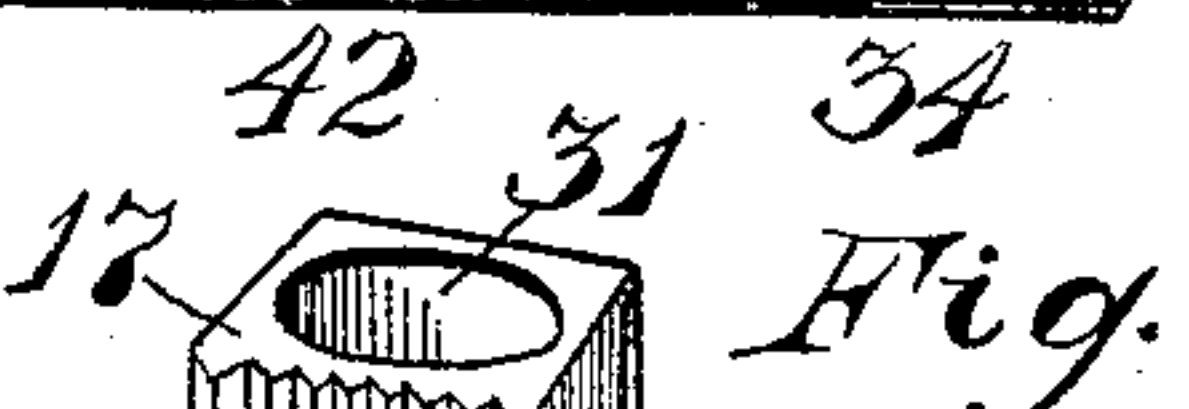
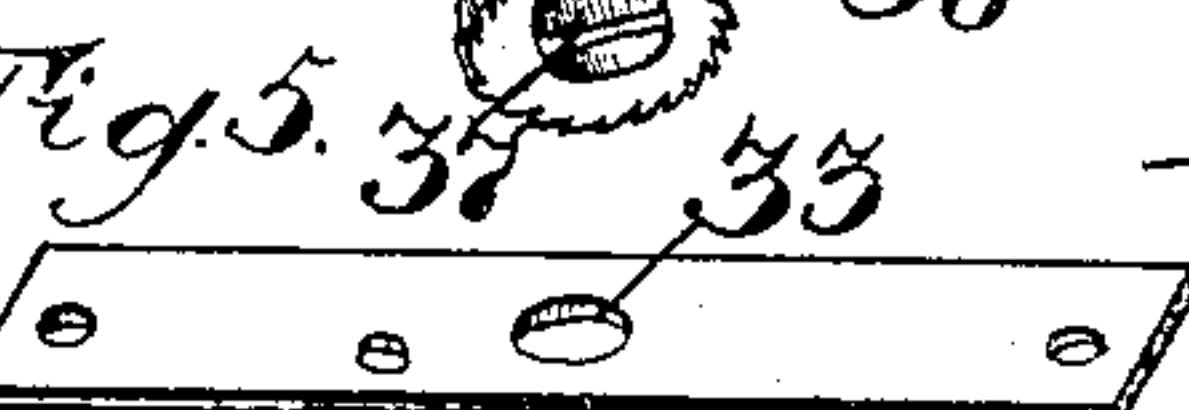
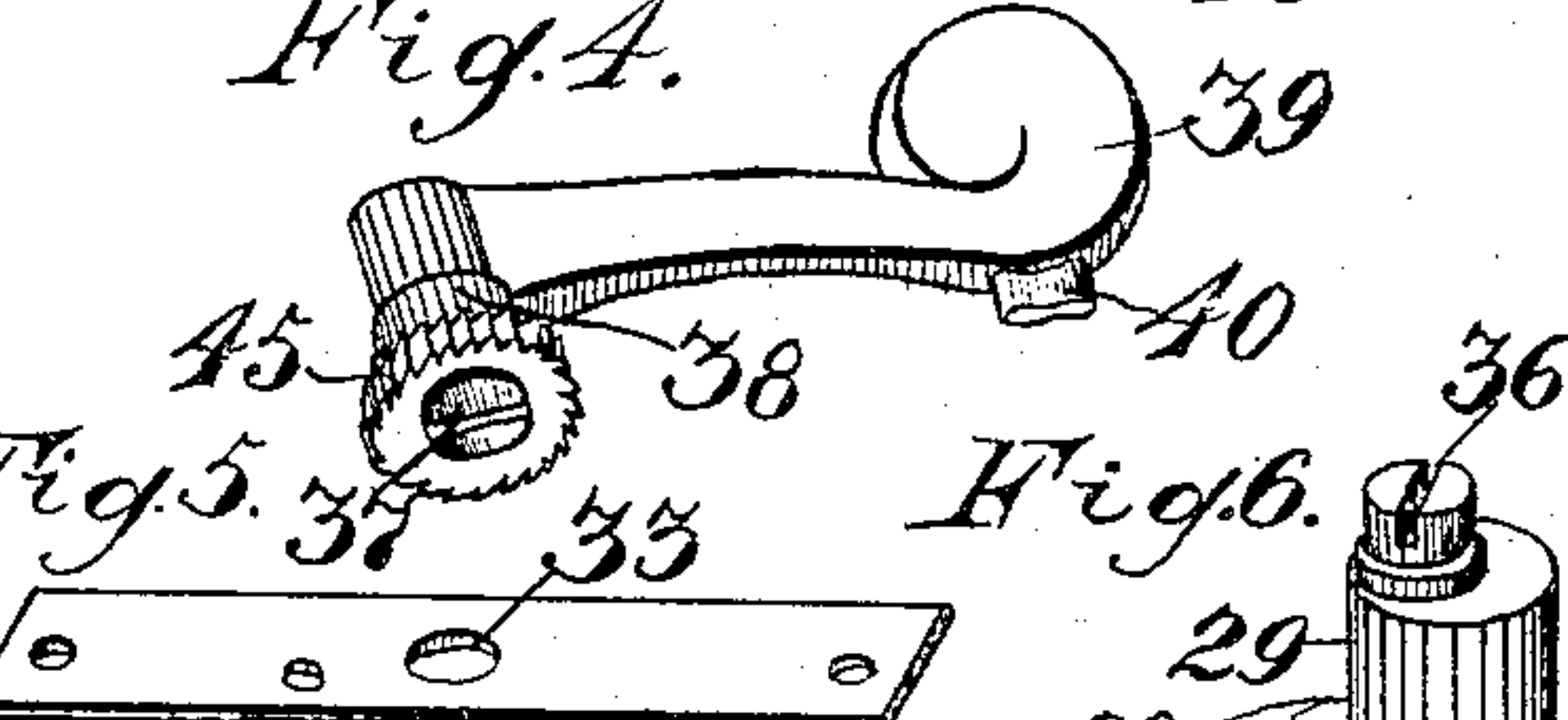


Fig. 3.



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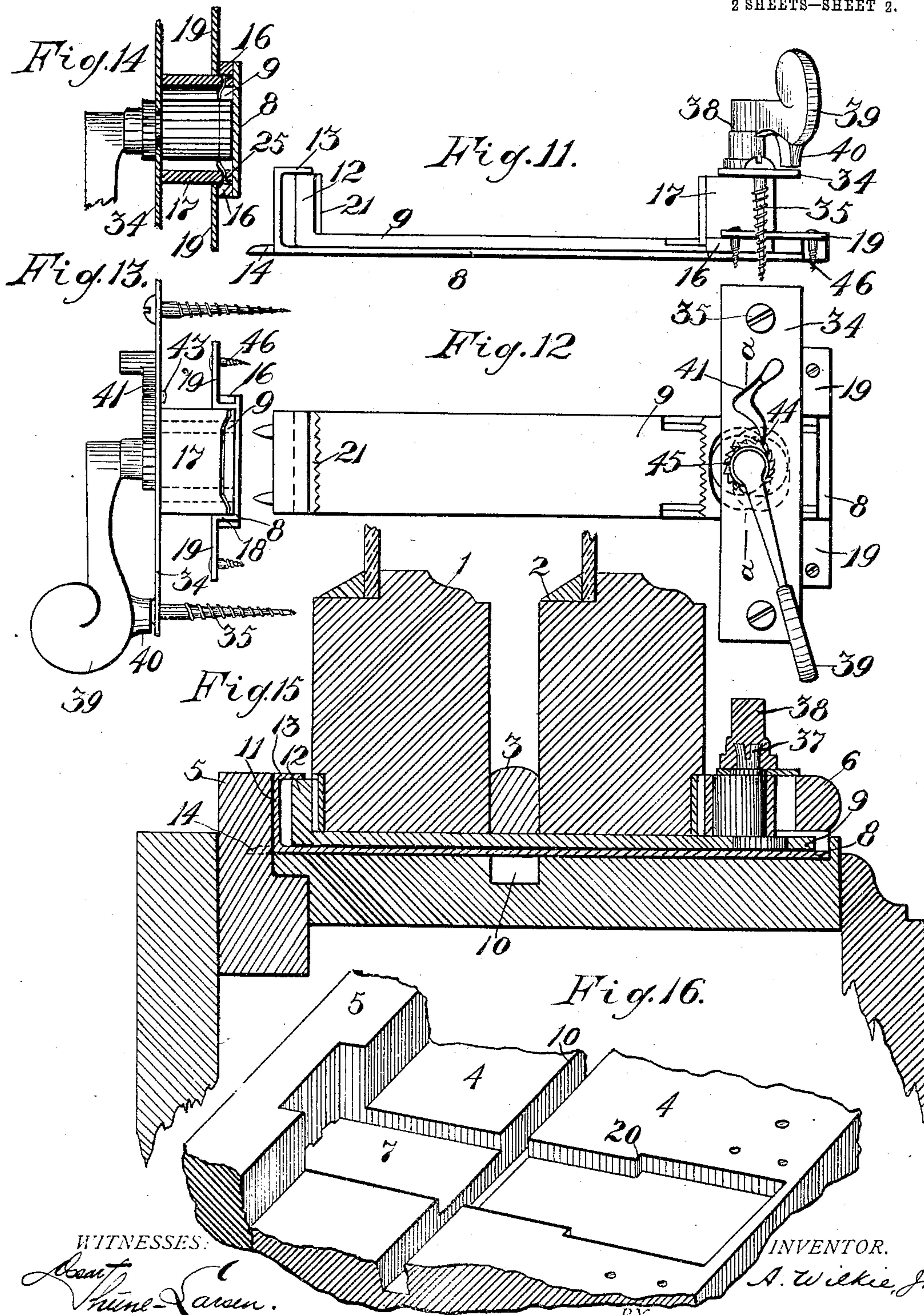
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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ANDREW WILKIE, JR., OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO
JOHN R. AITKEN, OF SAN FRANCISCO, CALIFORNIA.

SASH HOLDER AND FASTENER.

SPECIFICATION forming part of Letters Patent No. 791,970, dated June 6, 1905.

Application filed January 15, 1902. Serial No. 139,127.

To all whom it may concern:

Be it known that I, ANDREW WILKIE, JR., a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Sash Holders and Fasteners, of which the following is a specification.

My invention relates to improvements in sash holders and fasteners, the object of my invention being to provide a device of this character which will securely hold the two sashes of a window at any point to which they may be raised or lowered.

My invention is especially intended to prevent entry from the outside through said window in the case when the sashes are opened a short distance at the top and bottom to ventilate the room.

My invention also is effective in avoiding or at least greatly diminishing the rattling of the window-sashes.

My invention, therefore, resides in the novel constructions, combination, and arrangement of parts for the above ends, hereinafter fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a window equipped with my improved device. Fig. 2 is an enlarged perspective view of the sash-fastener detached. Fig. 3 is a similar view of the gravity-catch detached. Fig. 4 is a similar view of the key-handle. Fig. 5 is a similar view of the escutcheon. Fig. 6 is a similar view of the cam-key. Fig. 7 is a similar view of the block. Fig. 8 is a similar view of the bolt. Fig. 9 is a similar view of the bolt-frame. Fig. 10 is a similar view showing one of the corrugated strips. Fig. 11 is a side elevation of the sash-fastener as a whole detached. Fig. 12 is a plan view of the same. Fig. 13 is an end view of the same. Fig. 14 is a partial cross-section through the cam-key. Fig. 15 is a horizontal section through the edges of the window-sashes and through the pulley-stile. Fig. 16 is a broken perspective view of the part of the pulley-stile

and of the weather-strip engaged by the device.

Referring to the drawings, 1 represents the upper or outer sash of a window, and 2 the lower or middle sash thereof, divided by the parting-bead 3 and sliding against the pulley-stile 4 in the usual manner between the weather-strip 5 and the stop 6. The pulley-stile and the inner edge of the weather-strip are recessed, as shown at 7, to receive the bolt-frame 8 and the bolt 9. The parting-bead 3 is cut away on its under side, as shown at 10.

The bolt-frame 8 is formed of a single piece of metal having its outer end bent upward to form an end wall 11 for the lug 12 of the bolt and is then again bent back at right angles parallel with the body of the frame to form a lip 13, extending over the end of said lug. The function of said lip is, first, to prevent the outward displacement of said bolt, and, secondly, to prevent the entrance of dust and dirt and the formation of ice between the end of the bolt and the end wall of the frame, which might prevent the bolt from being extended the full distance to allow the sashes to move freely. A further important result attendant upon the use of this lip is that by holding the bolt back in place it prevents the vibration of the sash from one side of the window to the other, which might be caused by wind-pressure even when the sash is clamped by the bolt. Were it not for this lip, although the sash would be held by the bolt against vertical movement, there would be nothing but the parting-bead to prevent horizontal movement of the sash in its own plane. To hold said frame in place, it is provided at its outer end with prongs 14, punched out from the lower portion of the end wall 11 and extending in line with the main body of the bolt-frame. These prongs are driven into the weather-strip at the end of the recess 7, and thus prevent this end of the bolt-frame from being drawn out of the recess. At the other end the frame is first formed so as to provide supporting and guiding ledges 15 for the feet 16 of the block 17. Then at the extreme end the

sides of said frame are bent upward to form standards 18 and then outward to form gage-plates 19, resting upon the face of the pulley-stile and secured thereto by screws 46. The
 5 recess 7 in the pulley-stile is enlarged at the end, as shown at 20, to receive the ledges 15. It will be seen that said enlargement is longer than said ledges. This is for the purpose of permitting the feet 16 of the block 17 to be
 10 passed into position between the ledges 15 and the plates 19, between which ledges and plates said feet slide snugly.

Upon the bolt-frame 8 slides a bolt 9, the outer end of said bolt having the lug 12, already mentioned, which extends outward at right angles and is provided with horizontal teeth or corrugations 21, arranged when the bolt is moved inwardly to engage similarly-disposed teeth or corrugations 22 on a strip
 20 23, secured to the side of the outer sash at its lower end. To accomplish the same purpose for the inner sash, there is provided a block 17, which slides longitudinally of the bolt-frame independently of the bolt, said block
 25 having the feet 16, which, as already mentioned, slide upon the ledges 15 of the bolt-frame, said block itself sliding snugly between the inner edges of the gage-plates 19. Said block has also the corrugations 24, which en-
 30 gage corrugations 22 upon a strip 23 on the inner sash. It being necessary that the end of the bolt should slide freely underneath the block while at the same time the feet of the block slide upon the ledges of the bolt-frame,
 35 which are on a level with the under side of the bolt, it is necessary to provide connections between said feet and block which will allow this to be done. These connections are formed by means of steps or shoulders 25, which are
 40 of sufficient thickness to form a good connection between said feet and block, and the edges of the bolt, at the inner end thereof, are chamfered to conform to the shape of said steps—that is to say, they have inner oblique surfaces
 45 26 and outer surfaces 27 parallel with the upper surface of the bolt. It is to be understood that the edges of the bolt are sufficiently cut away to allow it to slide freely out of contact with the under surface of the block, which
 50 rests wholly and independently upon the frame by means of the feet 16. Also it is to be observed that the chamfer in the bolt is cut sufficiently far back to allow the block to be inserted in its operative position.

55 To impart the above longitudinal movement to the bolt and block, there is provided a key 28, having formed thereon upper and lower cams 29 30 of substantially opposite eccentricity, as shown. The upper cam works
 60 in an oblong hole 31 in the block 17, while the lower cam works in an oblong hole 32 in the inner end of the bolt. The upper end of said key passes through a hole 33 in an escutcheon 34, secured by screws 35 to the pulley-stile through

the stop. The outer plane surfaces of the 65 upper and lower cams being large flat surfaces and being held firmly in place between the frame and escutcheon it is not necessary to provide any other rotary bearing for said key besides the hole 33. The upper end of said 70 key-stem is formed with a transverse slot 36, which receives a wedge-shaped rib 37, extending diametrically across the socket 38 of the handle 39. The handle is driven firmly
 75 onto the end of the key-stem, and the wedge-shaped rib enters the slot with great force and firmly secures the block in place. Said handle is formed with a projection 40, which abuts against the heads of the screws 35, and thus limits its movement. Upon said es- 80 cutcheon, directly above the key 28, is pivoted a gravity-catch 41, the pivot of said catch being passed through a hole 42 in said escutcheon and then upset at the bottom, as shown at 43, said catch having a nose 44, 85 which engages one of a series of ratchet-teeth 45 around the socket of the handle, and so prevents said handle being turned except when said catch is raised out of engagement therewith. 90

I claim—

1. In a device of the character described, the combination of a key having two cams thereon, a bolt having an aperture in which one of said
 95 cams works, said bolt extending beneath the sashes of the window to the outside of the same, and being there provided with a lug arranged to press inward the outer sash when the key is suitably turned to operate said cam, a block having an aperture in which the other 100 cam works, the side of said block pressing the inner sash outward when the key is suitably turned to operate said other cam, and a base having secured thereto a fixed abutment against which the outer end of the bolt im- 105 pinges in its outward movement, substantially as described.

2. In a device of the character described, the combination of a key having two cams thereon, a bolt having an aperture in which one of said 110 cams works, said bolt extending beneath the sash of the window to the outside of the same, and being there provided with a lug arranged to press inward the outer sash when the key is suitably turned to operate said cam, a block 115 having an aperture in which the other cam works, the side of said block pressing the inner sash outward when the key is suitably turned to operate said other cam, and an abutment removably secured to the window-frame 120 against which the outer end of the bolt impinges in its outward movement, substantially as described.

3. In a device of the character described, the combination of a key having two cams thereon, 125 a bolt having an aperture in which one of said cams works, said bolt extending beneath the sashes of the window to the outside of the same

and being there provided with a lug arranged to press inward the outer sash when the key is suitably turned to operate said cam, and a block having an aperture in which the other cam works, the side of said block pressing the inner sash outward when the key is suitably turned to operate said other cam, and a fixed abutment limiting the movement of the block from the inner sash, substantially as described.

4. In a device of the character described, the combination of a key having two cams thereon, a bolt having an aperture in which one of said cams works, said bolt extending beneath the sashes of the window to the outside of the same and being there provided with a lug arranged to press inward the outer sash when the key is suitably turned to operate said cam, and a block having an aperture in which the other cam works, the side of said block pressing the inner sash outward when the key is suitably turned to operate said other cam, and a direct bearing for the key, fixed with reference to the window-frame, independent of the sashes preventing its movement in either direction, substantially as described.

5. In a device of the character described, in combination with the bolt, and suitable means for operating the same, the bolt-frame having the lip 13 passing over the lug 12 on said bolt, and means for securing said bolt-frame in position, substantially as described.

6. In a device of the character described, in combination with the bolt, and suitable means for operating the same, the bolt-frame having the prongs 14, and the lip 13 passing over the lug on said bolt, substantially as described.

7. In a device of the character described, the combination with the pulley-stile, of the bolt-frame sunk into a recess in the pulley-stile and having gage-plates 19 at opposite sides of one end of the frame, raised above said frame proper and resting upon the pulley-stile, the bolt sliding on said frame between said gage-plates, and means for operating said bolt, substantially as described.

8. In a device of the character described, the combination with the pulley-stile, of the bolt-frame sunk into a recess in the pulley-stile and having the walls 18 and the gage-plates 19 at opposite sides of one end of the frame, the latter resting upon the pulley-stile, the bolt and block sliding on said frame between said gage-plates, and means for operating said bolt and block, substantially as described.

9. In a device of the character described, in combination with the pulley-stile suitably recessed, the bolt-frame in said recess formed at one end with guiding-ledges, and the bolt sliding on said frame, the block having feet on said ledges and means for operating said bolt and block, substantially as described.

10. In a device of the character described, in combination, with the pulley-stile suitably recessed, the bolt-frame therein having gage-

plates, the bolt sliding on said frame, the block having feet on said frame beneath said plates, and means for operating said bolt and block, substantially as described.

11. In a device of the character described, the combination, with the bolt-frame having the guide-plates, of the bolt having chamfered edges and sliding on said frame, said block overlying said edges, and being guided by said plates, substantially as described.

12. In a device of the character described, the combination with the bolt-frame having the guide-plates, of the bolt sliding on the frame, and the block over said bolt having feet also sliding on said frame, and being guided by said plates, substantially as described.

13. In a device of the character described, the combination with the bolt-frame, of a bolt sliding on said frame, and a block moving over said bolt and having feet also sliding on said frame, substantially as described.

14. In a device of the character described, the combination of the frame having the gage-plates, and the block the sides of which engage the sides of the gage-plates, said block having feet passing beneath said gage-plates and moving substantially in contact with the under surface thereof, substantially as described.

15. In a device of the character described, the combination with the slidable bolt and slidable block adapted to grasp the window-sashes, means independent of the position of the block for moving the bolt transversely with reference to the window-frame, and means independent of the position of the bolt for moving the block transversely with reference to the window-frame, substantially as described.

16. In a device of the character described, the combination of a base-plate, a bolt and block both sliding directly on said base independently of each other and a cam-lever having parts passing through said bolt and block and directly engaging them, substantially as described.

17. In a device of the character described, a key having a double cam, a bearing for the key fixed with reference to the window-frame said bearing fitting snugly against said key on opposite sides thereof to prevent movement of the key either to or from the window-sashes and devices coöperating with said cam for engaging the window-sashes, substantially as described.

18. In a device of the character described, the combination of a sliding bolt, a sliding block, a key with a double cam engaging said bolt and block, and a bearing fixed with reference to the window-frame to which the device is to be applied, said bearing fitting snugly against said key on opposite sides thereof to prevent movement of the key either to or from the window-sashes substantially as described.

19. In a device of the character described,
the combination of the bolt engaging the outer
window-sash, the block engaging the inner
window-sash, the removable bolt-frame guid-
5 ing said bolt and block, the rotatable key hav-
ing engagements with said bolt and block ec-
centric of each other, and a bearing for said
key provided with means for fixedly securing
the same to the window-frame, said bearing
10 fitting snugly against said key on opposite
sides thereof to prevent movement of the key
either to or from the window-sashes substan-
tially as described.

20. In a device of the character described,
15 the combination of the bolt-frame, the bolt
and block sliding longitudinally thereof, the

rotatable key having engagements with said
bolt and block eccentric with each other and
the escutcheon fixedly secured over said block
and forming a fixed bearing for said key, said 2
bearing fitting snugly against said key on op-
posite sides thereof to prevent movement of
the key either to or from the window-sashes
substantially as described.

In witness whereof I have hereunto set my 2
hand in the presence of two subscribing wit-
nesses.

ANDREW WILKIE, JR.

Witnesses:

FRANCES M. WRIGHT,
BESSIE GORFINKEL.