

(No Model.)

3 Sheets—Sheet 1.

J. H. PRUITT.  
BURGLAR ALARM.

No. 432,077.

Patented July 15, 1890.

FIG. 1.

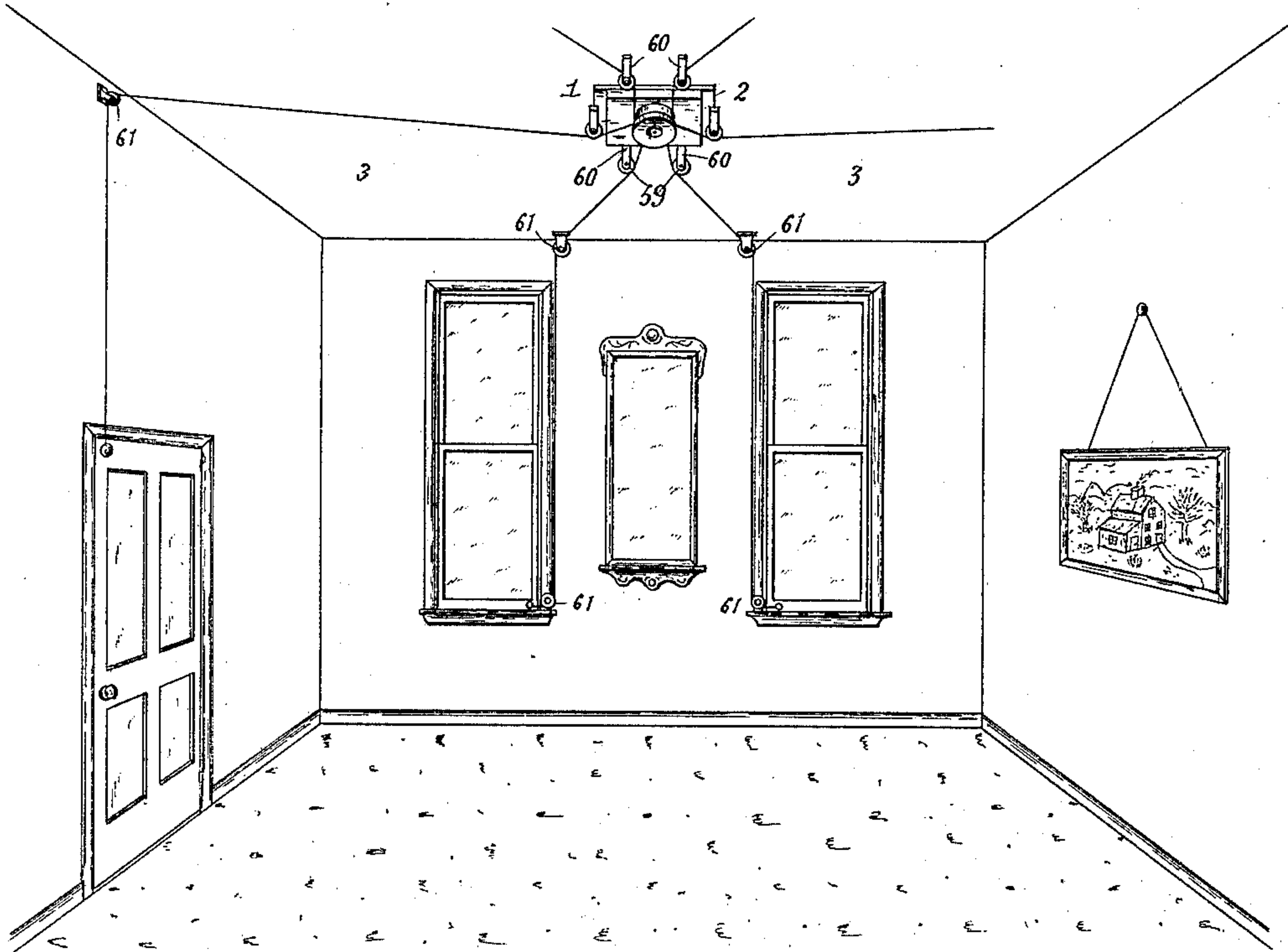
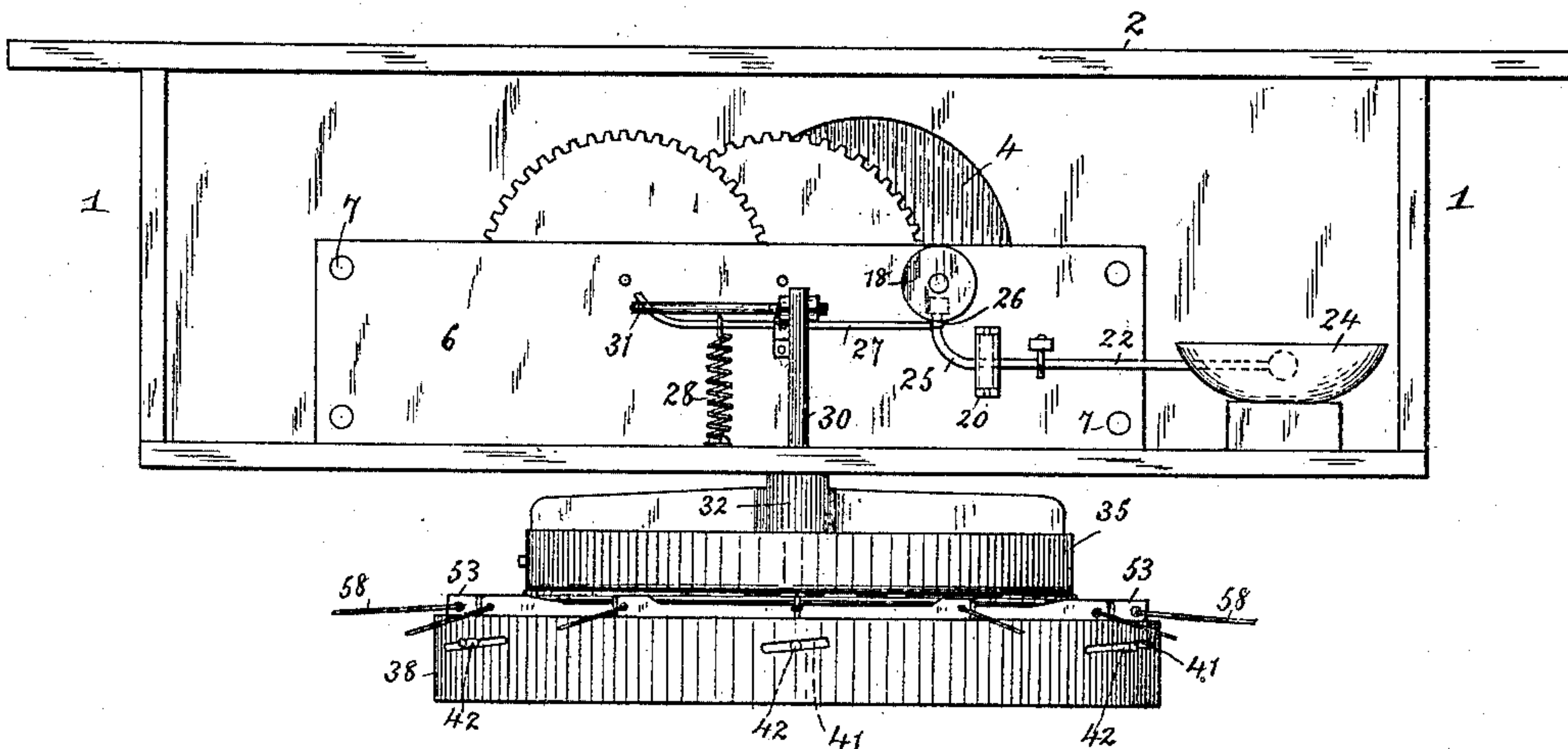


FIG. 2.



Witnesses:

*Jas. K. McLaughlin*

*W. S. Duwall*

Inventor

*John H. Pruitt*

By *his* Attorneys

*C. A. Snow & Co.*





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3 Sheets—Sheet 3.

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FIG. 5.

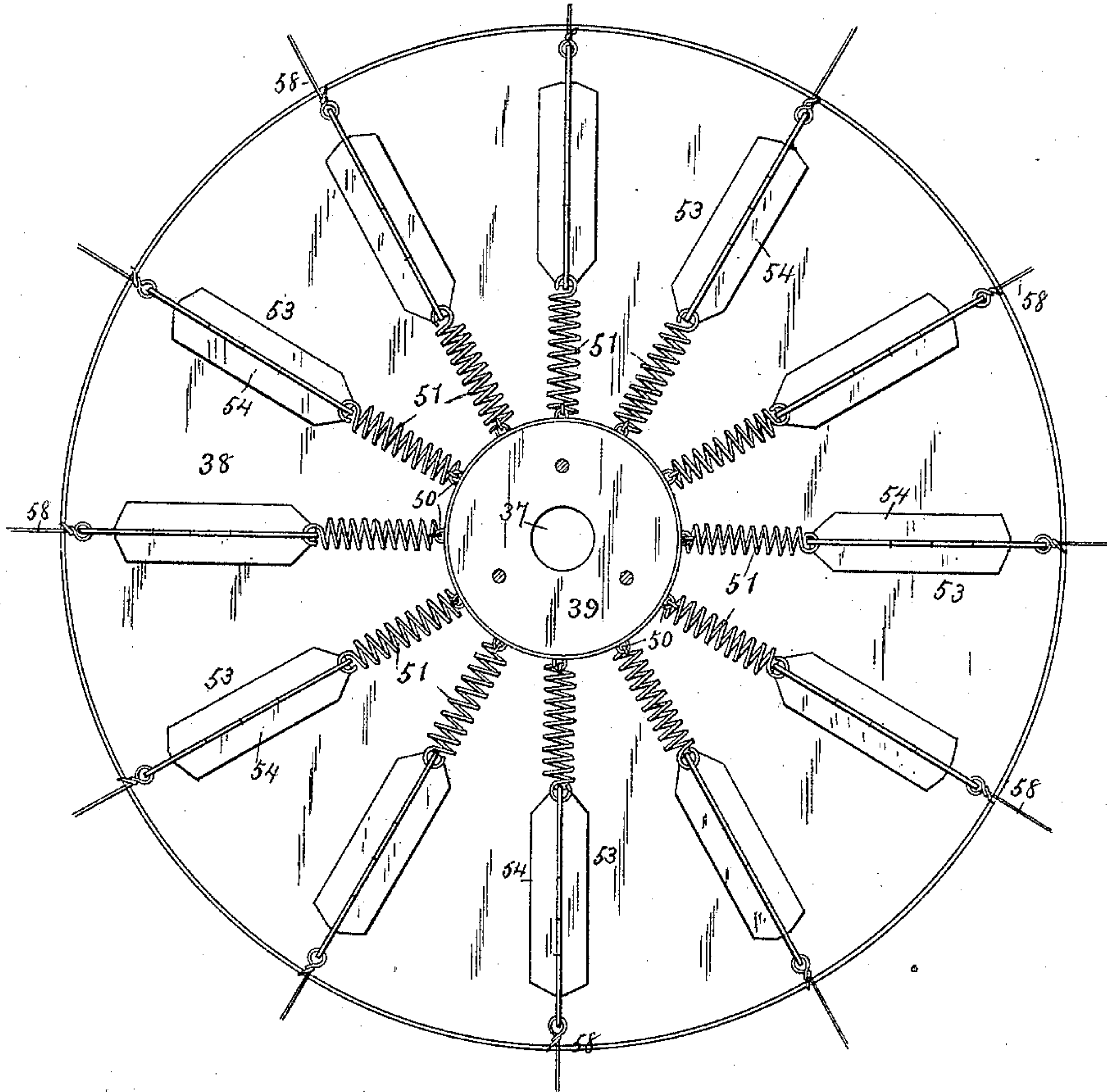


FIG. 7.

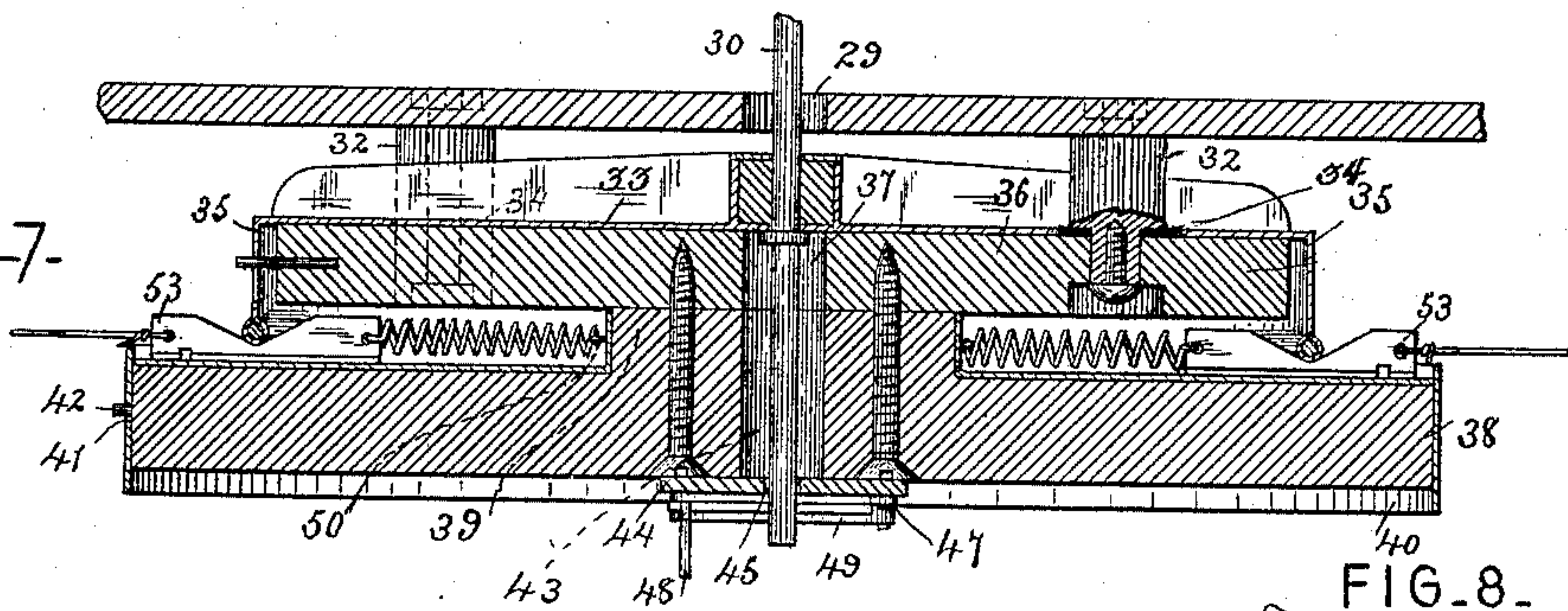


FIG. 6.

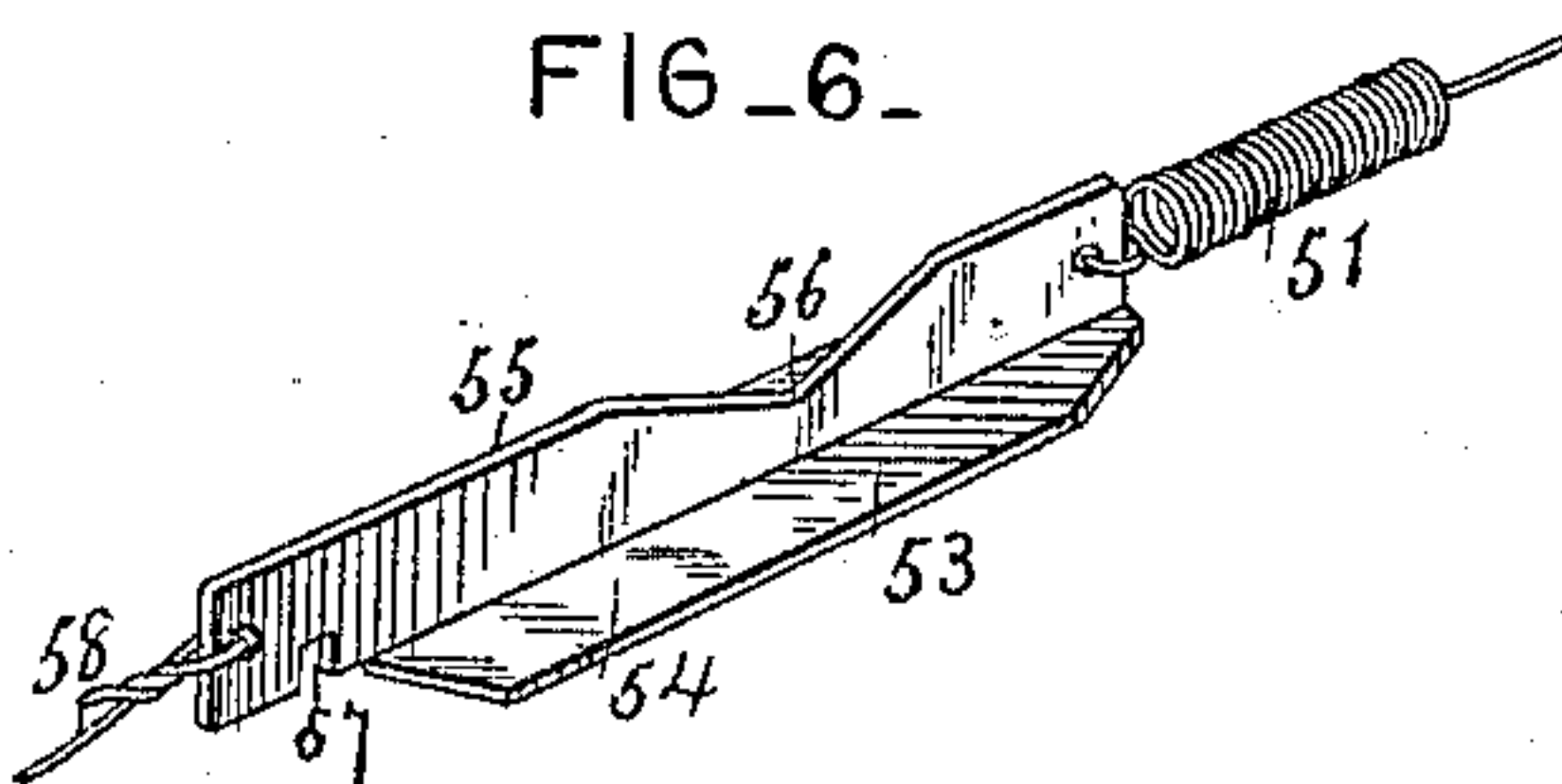
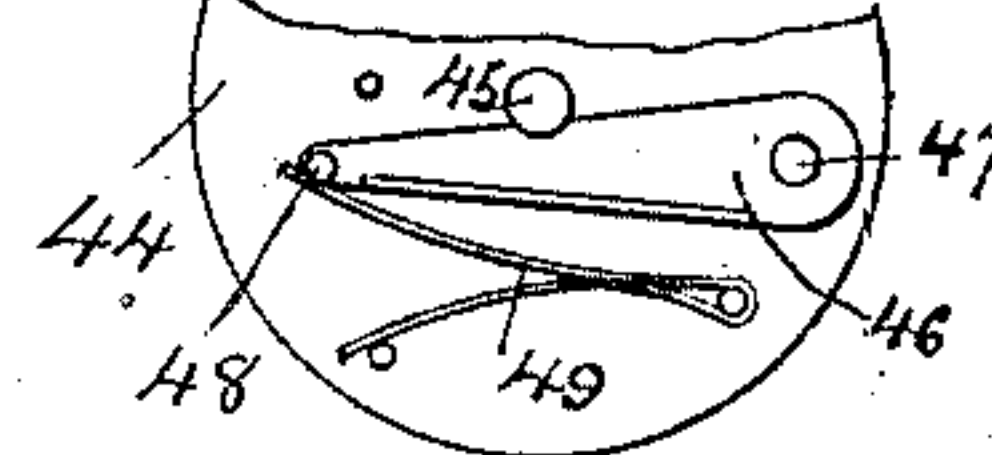


FIG. 8.



Witnesses:

Jas. K. McLathun

W. S. Duwall.

Inventor

John H. Pruitt

By his Attorneys

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

JOHN HENRY PRUITT, OF MARKTON, ALABAMA.

## BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 432,077, dated July 15, 1890.

Application filed March 19, 1890. Serial No. 344,552. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN HENRY PRUITT, a citizen of the United States, residing at Markton, in the county of Etowah and State of Alabama, have invented a new useful Burglar-Alarm, of which the following is a specification.

This invention relates to burglar-alarms, and among the objects in view is to provide an alarm adapted to be sounded by the opening of a door or window connected with the alarm-sounding mechanism.

Other objects and advantages of the invention, together with the novel features thereof, will hereinafter appear, and be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of an alarm constructed in accordance with my invention and illustrating the manner of connecting the same with a window. Fig. 2 is a side elevation of the alarm-mechanism case, the side wall removed, exposing the interior. Fig. 3 is a top plan of the case, exposing the interior mechanism. Fig. 4 is a detail in plan of the alarm ring and staff. Fig. 5 is a top plan view of the cam-disk in detail. Fig. 6 is a detail in perspective of one of the cam-slides. Fig. 7 is a central longitudinal section of the alarm and cam disks. Fig. 8 is a detail of the alarm-staff binding-lever.

Like numerals of reference indicate like parts in all the figures of the drawings.

The alarm-case 1 is provided at its upper side with a securing-plate 2, which projects beyond the ends of the case, and by screws is secured to the ceiling 3 of a room in which it is desired the alarm to be sounded. The case is also provided at its sides with openings 4, by which an inspection may be obtained, and at the sides of the same are pivoted swinging covers 5.

To the bottom of the case and within the same there is secured a pair of vertical plates 6, and the same are connected and spaced apart by a series of tie-bolts and spacing-sleeves 7. A winding-shaft 8 is mounted in the plates, and has its square end 9 projecting through the side wall of the casing, the same being adapted to receive any ordinary winding-key. Mounted upon the winding-shaft is the usual power-generating spring 9<sup>a</sup>,

and at one side of the same a master-gear 10, the latter provided with a pivoted pawl 11, normally pressed into mesh with a ratchet 12, mounted upon the winding-shaft adjacent to the master-gear. Upon a shaft 13 in front of the winding-shaft there is mounted a small pinion 14, which meshes with the master-gear, receiving motion therefrom and transmitting the same to the shaft, which latter also carries a large gear 15, the teeth of which mesh with a small pinion 16, mounted upon the cam-shaft 17, which latter is projected beyond one of its bearings and there provided with a wheel 18, having a cam-slot 19. A bracket 20 projects from one of the side plates 6 directly in front of the cam-wheel, and journaled for oscillation in the same are the trunnions 21 of a hammer-shaft 22, the head of which is adapted to vibrate between two stationary alarm-bells 23 and 24. In rear of its trunnion the hammer-shaft is bent to form an elbow 25, which enters the cam-slot of the wheel, and at its extremity is provided with a roller to avoid friction. A stop 26 is mounted upon the cam-wheel, and against the same takes the free end of a pivoted stop-lever 27, the rear end of which is drawn in an opposite direction by a coiled spring 28.

The bottom of the case is provided with a central perforation 29, and mounted for loose reciprocation therein is an alarm-shaft 30, from the upper end of which there projects laterally a tripping-arm 31, which when the shaft is raised comes in contact with the rear end of the stop-lever, raising the same against the tendency of the spring and liberating the cam-wheel from the influence of the stop-lever.

A series of rods 32 project from the under surface of the bottom of the case, and upon the same there is mounted a disk 33, having an annular flange 35 depending therefrom, said disk being provided with openings 34 for the reception of the rods. Secured to the ends of the rods 32, below the flanged disks, is a solid head 36, centrally perforated like the disk, as at 37, and through the openings or perforations 29 and 37 depends the alarm-shaft.

38 represents the cam-disk, which is provided with a central hub 39 upon its upper surface, provided with a perforation adapted



to register with the perforation 37 of the head 36. The disk 38 is encircled by a depending flange or ring 40, which at intervals is provided with inclined slots 41, through which  
 5 extend radiating pins or pegs 42 from the periphery of the disk. The under surface of the opening 43, formed in the hub and disk, is covered by a plate 44, centrally perforated, as at 45, and through the openings mentioned  
 10 depends the alarm-shaft. A lever 46 is pivoted to the plate 44, as at 47, at one side of the perforation 45, and from the free end of the lever depends a handle 48. A spring 49, also secured to the plate, has its free end  
 15 bearing against the side of the lever, and normally presses the same over the perforation 45 of the plate, and the adjacent edge of the lever is slightly beveled, so that the same bites upon the alarm-shaft.

20 The hub 39 is provided with a series of peripheral eyes 50, and with each of the same there is connected the inner end of a short coiled spring 51, the opposite ends of the coiled springs being connected to a cam-slide 53,  
 25 there being as many slides as springs and both agreeing with the number of windows or doors to which the alarm is to be connected. The cam-slides consist of a shoe portion 54, adapted to slide upon the upper surface of  
 30 the cam-disk 38, and upon the upper surface of the shoe there is located a longitudinally-disposed fin 55, the upper edge of which, near its center, is provided with a recess 56, and the under edge of the same, in front of the  
 35 shoe, with a notch 57, and from the ends of the fins there lead wires 58, each of which has its opposite end connected with a door or window, so that when opened or raised strain is directed to the wires, and through the medium  
 40 of the same the shoe to which the wire or wires are connected is drawn outward against the tendency of the springs. This outward withdrawal of any one of the cam-slides wedges the slide between the depending flange  
 45 35 of the alarm-disk, which loosely rides up the depending standard 32, for which purpose said disk is perforated, as at 34, as before stated, and, the cam-disk and the latter being rigid with the fixed head of the alarm-  
 50 disk, the fin serves to raise the alarm-disk, and, being fixed to the alarm-shaft, raises said shaft. The mechanism having been wound in a manner obvious, it will be apparent that by the elevation of the upper end of the  
 55 alarm-shaft said shaft, through the medium of its releasing or tripping arm, raises the rear end of the stop-lever against the tendency of the coiled spring controlling the same. When the stop-lever is thus raised, its  
 60 free end is withdrawn from in front of the stop upon the cam-wheel, which, being influenced by the coiled power-spring, will by the speed-increasing gears intermediate the same  
 65 be rapidly revolved, and in its revolution will, by reason of its peculiar-shaped slot, oscillate the rear and front ends of the bell-hammer

shaft, and therefore the head of the same intermediate the two alarm-bells. When the alarm has been thus sounded by an elevating  
 70 of the alarm-shaft said shaft is withdrawn upward through the cam-disk and is maintained by the biting-lever in its elevated position, so that a continuous alarm is rung or an alarm  
 of such length as agrees with the power stored by the spring. The upper edges of the fins  
 75 of the cam-slides, being provided with recesses or cut-away portions, do not act upon the depending flange of the alarm-disk after said slides have been drawn to such a position as  
 will bring the recesses opposite the flanges. 80 Each of the wires pass over a grooved pulley 59, journaled in a depending standard 60, of which there are a series surrounding the casing. It will also be understood that the series  
 of wires are suitably guided by guide-eyes 85 61, arranged at intervals, as in the manner of wire hanging.

The disk 38, having the flange 40, normally has its upper surface flush with the edge of the flange, so that a withdrawal of any of the  
 90 slides is unimpeded; but, if desired, it will be apparent that the flange 40 of the disk may be partially revolved, so that by reason of the inclined slots 41 the upper edge of the flange  
 will be projected above the upper surface of 95 the disks and into the notches in the lower edge of the fins of the slides, and a withdrawal of any of the slides is impossible. In this manner it will be obvious that the alarm may  
 be locked against operating, such being de- 100 sirable oftentimes in case of sickness.

Having thus described my invention, what I claim is—

1. In a burglar alarm, the combination, with a frame, a winding-shaft mounted thereon, a 105 master-gear loose upon the shaft, a ratchet fast upon the shaft at one side of the master-gear, a pawl pivoted to the gear and meshing with the ratchet, and a series of speed-increasing gears, of a cam-shaft having a pin- 110 ion meshing with said gears, a cam-wheel mounted on the shaft, a bell-hammer having one end moving in the track of the wheel and its opposite end located between two alarm-  
 bells, a stop mounted on the cam-wheel, a 115 stop-lever for operating in the same, a spring for maintaining the lever against the stop, an alarm-shaft depending through the casing and adapted for contact with the rear end of the stop-lever, a flanged alarm-disk rigid with 120 the alarm-shaft, a fixed head secured to the casing below the alarm-disk, a cam-disk fixed to the head and spaced therefrom, and a series of slides mounted upon the upper surface of the cam-disk, and a series of springs 125 for connecting the same to the hub of the disk, each of said slides being connected with a wire adapted for connection with a window or door, substantially as specified.

2. The combination, with an alarm-case 130 and an alarm mechanism, the latter comprising a bell-hammer, operated cam-wheel hav-



ing a stop, a stop-lever, and a depending reciprocating alarm-shaft having a stop-lever-operating arm, of a series of posts depending from the case, a fixed head mounted on the post, an alarm-disk rigidly connected with the alarm-shaft and having a depending head-encircling flange, a cam-disk having a spacing-hub centrally perforated to receive the alarm-shaft and secured to the fixed head, a series of springs radiating from the hub, a series of slides connected to the hub, each comprising a sliding shoe and a longitudinal vertically-disposed fin, a series of wires, and a pivoted spring-pressed lever arranged upon the under surface of the cam-disk and adapted to bind against the alarm-shaft, substantially as specified.

3. In a burglar-alarm, the combination, with the alarm mechanism, comprising in its make-up a releasing stop-lever, of a reciprocating alarm-shaft depending through the bottom of the case and having a tripping-arm adapted to be thrown against the lever, a fixed head having a perforation for the reception of the lever arranged below the casing, a flanged alarm-disk inclosing the head and rigid with the alarm-shaft, a cam-disk having the central spacing-hub secured to the fixed head, a series of sliding cams mounted upon the upper surface of the disk, and a ring or flange encircling the disk and provided with a series of inclined slots, and a series of pins extending from the periphery of the disk, whereby the upper edge of the disk may be thrown into the path of the cam-slides by a partial

revolution of said flange, substantially as specified.

4. In a burglar-alarm, the combination, with the alarm mechanism and its releasing-lever, of a reciprocating alarm-shaft depending through the bottom of the casing, a fixed head arranged below the casing and having a central opening for the passage of the shaft, a flanged disk mounted over the head and rigid with the shaft, a cam-disk having a spacing-hub secured to the fixed head and centrally perforated for the passage of the shaft, a series of cam-slides, each consisting of a sliding shoe, a longitudinally-disposed fin having a rounded forward end, a notched under edge, and a recessed upper edge, wires connected to each of the same and leading to its respective window or door, and a series of coiled springs, one for each of the slides, and connecting the rear end of the same with the spacing-hub of the cam-disk, substantially as specified.

5. In a burglar-alarm, the cam-disk 38, having the series of slides 53, and the springs 51, each of said slides being connected with a wire adapted for connection with a window or door, and the alarm mechanism connected with the cam-disk, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN HENRY PRUITT.

Witnesses:

JAMES L. YOUNG,  
JAMES T. BROOKS.