

(No Model.)

2 Sheets—Sheet 1.

A. A. GIBSON.  
RAILROAD SWITCH STAND.

No. 452,543.

Patented May 19, 1891.

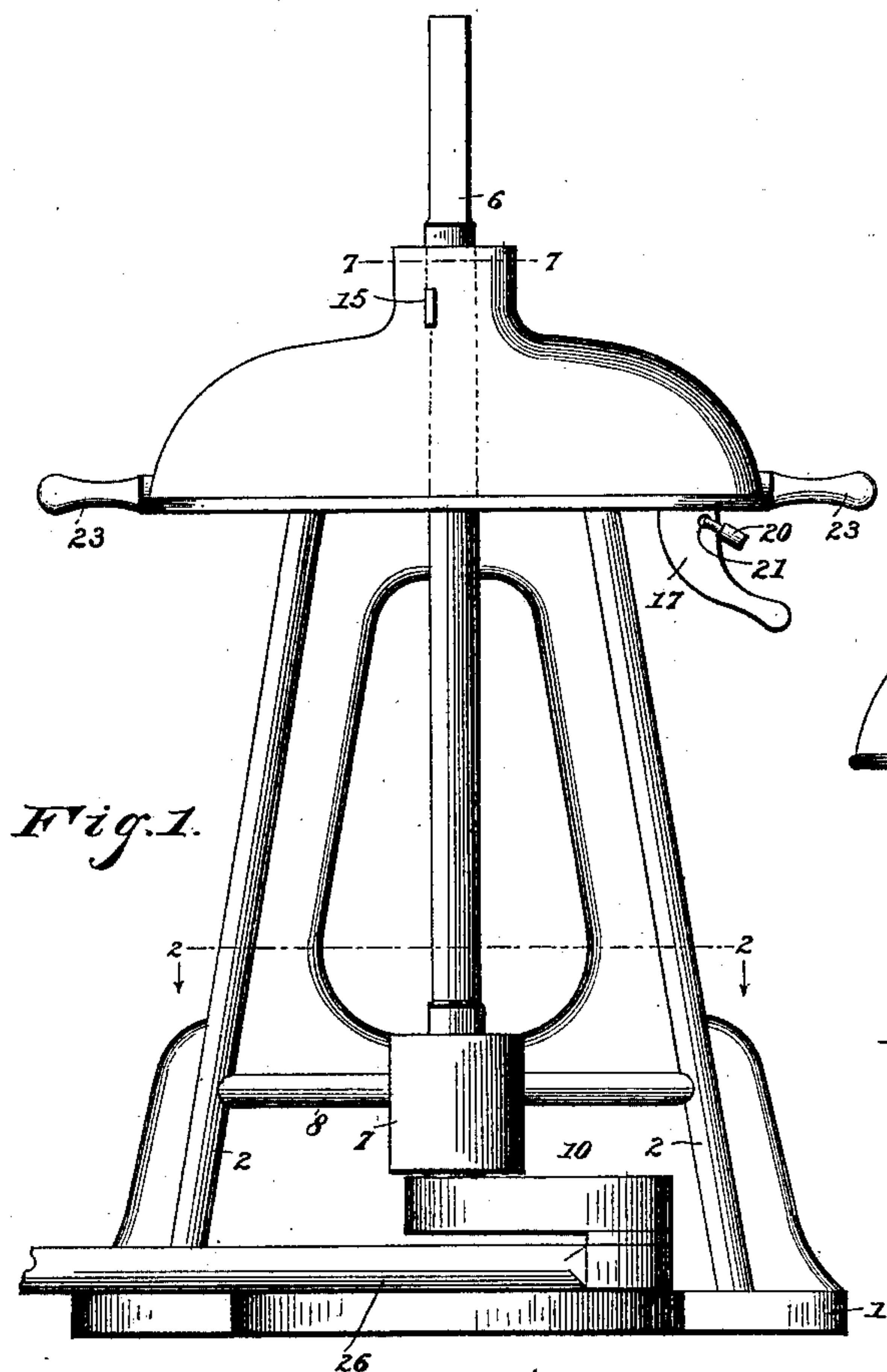


Fig. 1.

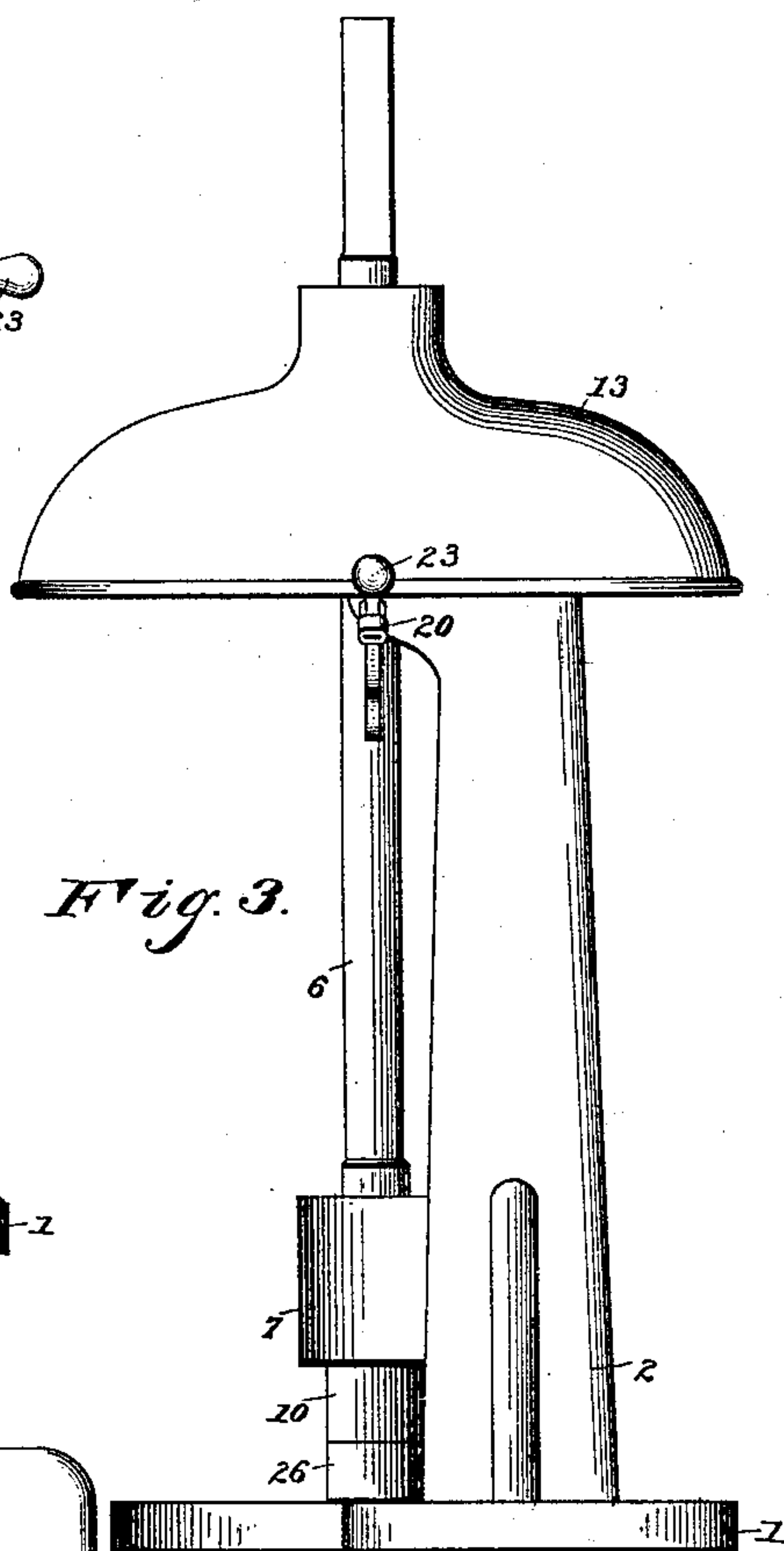


Fig. 3.

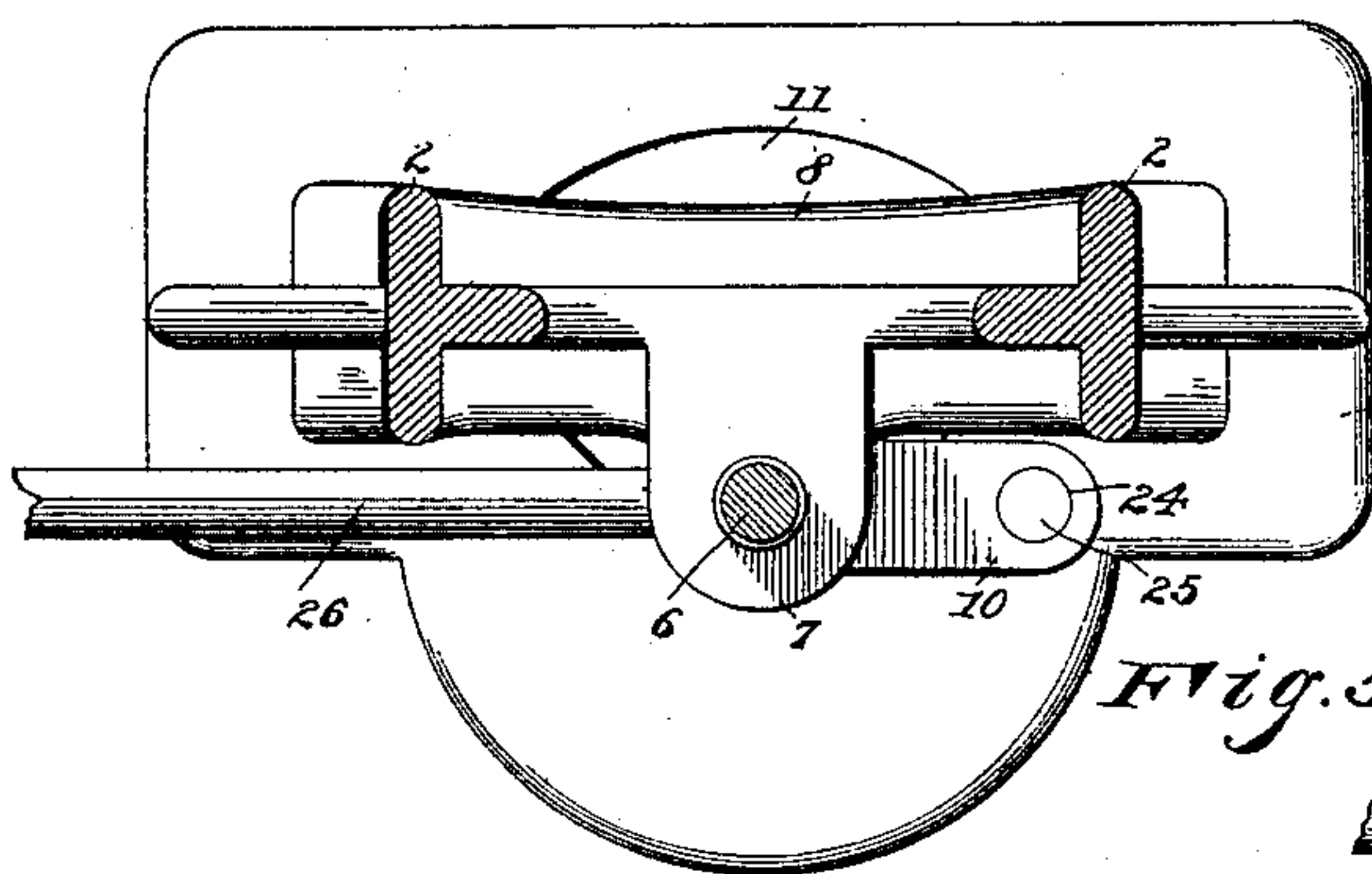


Fig. 2.

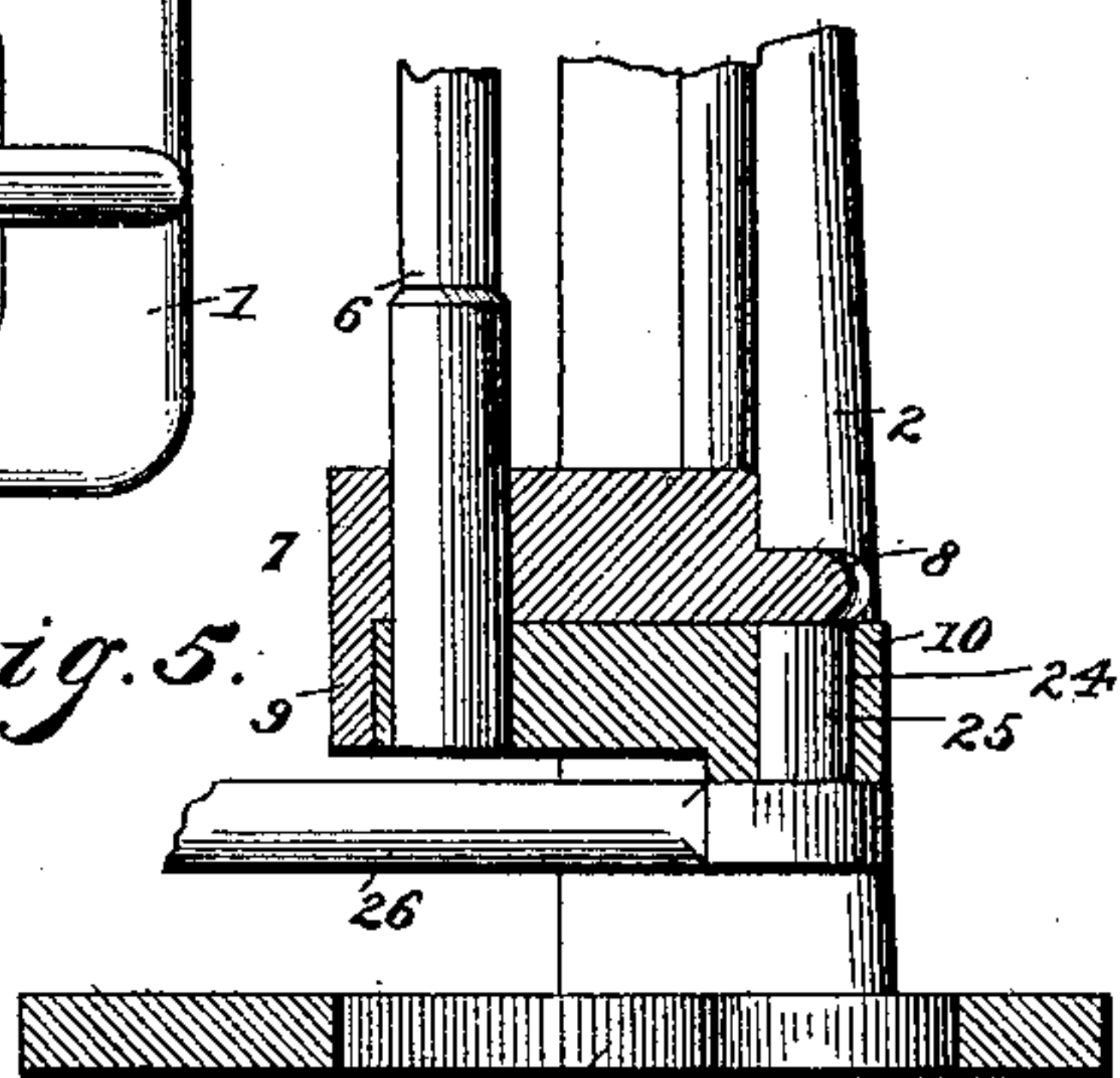


Fig. 5.

Witnesses;

*Wm. Withrow*  
*Wm. Baggers*

By his Attorneys,

*C. A. Snow & Co.*

Inventor

A. A. Gibson,

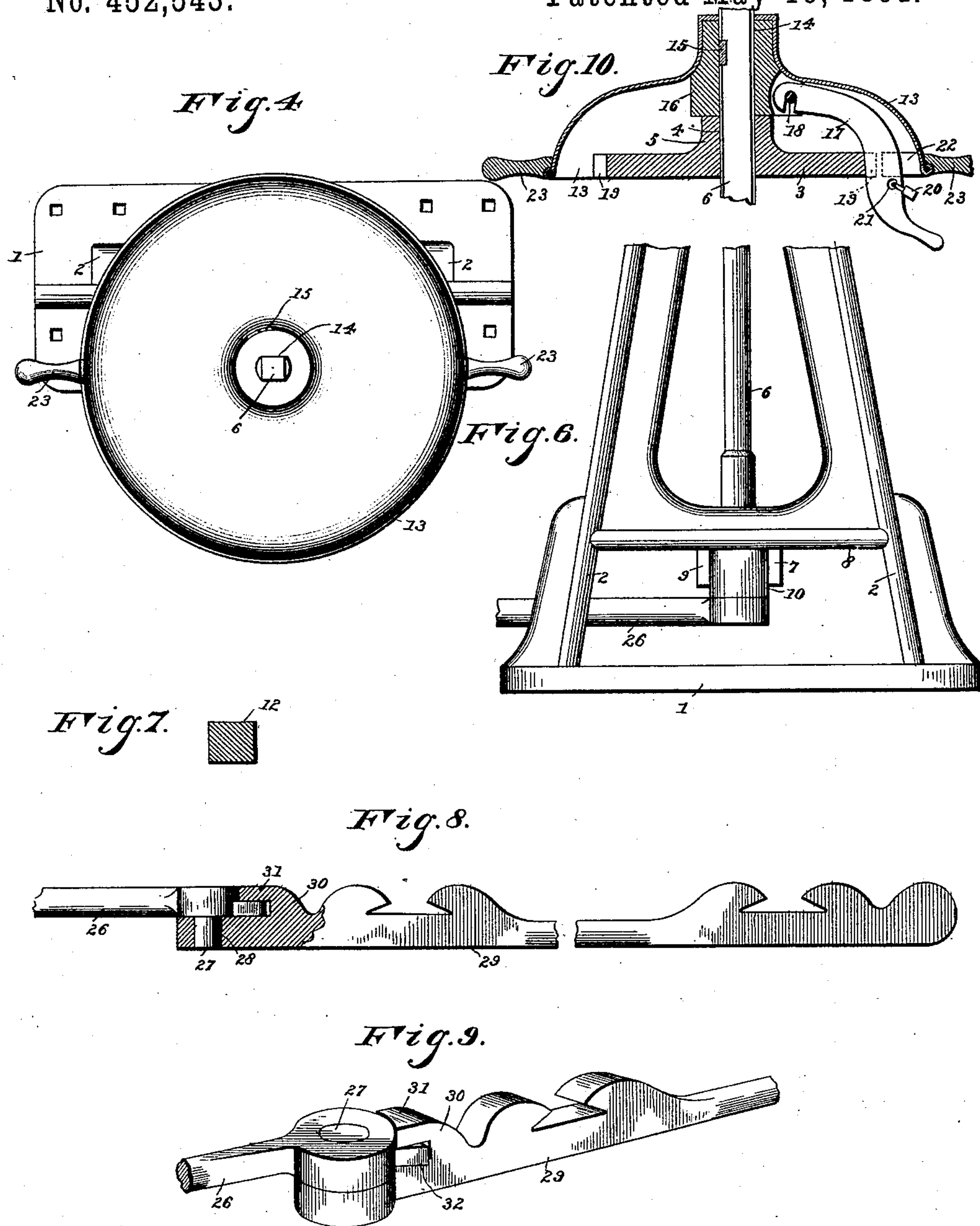
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# UNITED STATES PATENT OFFICE.

ALBERT ARRINGTON GIBSON, OF OMAHA, NEBRASKA.

## RAILROAD-SWITCH STAND.

SPECIFICATION forming part of Letters Patent No. 452,543, dated May 19, 1891.

Application filed February 5, 1891. Serial No. 380,365. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT ARRINGTON GIBSON, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented a new and useful Railroad-Switch Stand, of which the following is a specification.

This invention relates to railroad-switch stands; and it has for its object to provide a switch-stand which shall be simple, inexpensive, and durable, and in which the several parts and connecting devices shall be so constructed and connected as to dispense with the use of connecting-pins, bolts, and the like, and to preclude the possibility of their being tampered with or disconnected by unauthorized parties without breaking the entire stand.

The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a front view of a switch-stand constructed in accordance with my invention. Fig. 2 is a horizontal sectional view taken on the line 2-2 in Fig. 1. Fig. 3 is a side elevation. Fig. 4 is a plan view. Fig. 5 is a part sectional elevation. Fig. 6 is a part rear elevation. Fig. 7 is a sectional view of the crank-shaft, taken on the line 7-7 of Fig. 1. Fig. 8 is a longitudinal sectional view of the connecting-rod and foot-bar or bridle-bar. Fig. 9 is a perspective detail view of the said connecting-rod and bridle-bar. Fig. 10 is a sectional detail view taken through the cap-disk and the top of the switch-stand.

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

My improved switch-stand is composed of the base-plate 1, having the upwardly-converging uprights 2 2, the upper ends of which support the circular table or platform 3. The latter is provided with a central perforation 4, surrounded by a bushing or flange 5. Said perforation forms one of the bearings for the shaft 6, the lower end of which has a bearing 7 in the cross-bar 8, which connects the uprights 2 2. The perforation or bearing 4 and

perforation or bearing 7 are to be babbitted. A downwardly-extending flange 9 surrounds the two sides and the front end of the bearing 7. The shaft 6 is provided at its lower end with an integral crank 10, for the admission of which an opening 11 is formed in the base-plate 1 of the switch-stand.

The upper end of the crank-shaft 6 is made square, as will be seen clearly at 12 in Fig. 7 of the drawings, to receive the cap-disk 13, which has a correspondingly-shaped opening 14 and which is held securely in position upon the shaft 6 by means of a wedge-shaped key 15, one end of which may be split and clinched; or it may be simply riveted or upset to hold it securely and permanently in position. The cap-disk 14 has a pocket 16 to receive the operating lever or latch 17, which is mounted pivotally upon a pin 18 in the said pocket. The free end of said latch is adapted to engage any one of a series of recesses 19 at the edge of the disk or table 3. When thus engaged, it may be secured by means of a pad-lock 20, mounted in a perforation 21 in said operating-latch directly below a slotted lock or projection 22 upon the inner side of the cap-disk and through which the said operating-latch extends. I prefer to provide the cap-disk 13 with oppositely-arranged handles 23 to assist in its convenient manipulation. Said cap-disk, as will be seen, serves to protect the locking device from sleet and snow.

The crank 10 at the lower end of the shaft 6 is provided at its outer end with a recess 24, affording a bearing for a pin or lug 25, extending upwardly from one end of the connecting-rod 26. The latter is provided at its outer end with downwardly-extending pin or lug 27, adapted to engage a recess 28 in the foot-bar or bridle-bar 29. The latter is also provided on its upper side with a projection or shoulder 30, having a flange 31, adapted to take over a flange 32, which projects outwardly from the outer end of the connecting-rod. The latter is formed integrally with said flange and with the pins or lugs at its inner and outer ends, and the bridle-bar is likewise formed integrally with the flange-shoulder above described, or if not formed integrally



the parts are to be connected in such a manner as to render their separation without violent means impossible.

The method of assembling the parts of my improved switch-stand will be readily understood from the foregoing description when reference is had to the drawings hereto annexed. The crank-shaft is inserted through the opening 11 in the base-plate of the switch-stand into its bearings, and the crank at its lower end is raised to a position flush with the under side of the bearing-block 7, said crank being partially inclosed by the downwardly-projecting flange 9. While the crank is in this position, the pin or lug 25 of the connecting-rod 26 may be inserted upwardly into the recess or bearing 24 at the outer end of the crank. The crank-shaft is now lowered until it rests upon the inner end of the connecting-rod, which latter in turn is supported upon the base-plate 1. When in this position, the crank 10 is clear of the flange 9, and may be swung around in a forward direction, when the said flange will retain the said crank-shaft against movement in an upward direction. The foot-bar or bridle-bar is now coupled with the outer end of the connecting-rod by first placing it at such an angle to the connecting-rod as to cause the flange 31 of the shoulder 30 to clear the flange 32 at the outer end of the connecting-rod, and then causing the pin 27 at the outer end of the latter to engage the recess 28 in the bridle-bar. The latter is then swung in an outward direction, causing the flanges 31 and 32 to interlock. The bridle-bar is now slid upon the switch-rails and the switch-stand moved into the desired position, where it is firmly secured by means of spikes or in any suitable manner. The cap-disk and operating-latch are finally placed in position and the device is then ready for operation. It will be observed that when the device is in position the uprights 2, engaging the connecting-rod 26, will prevent the crank-shaft from being rotated much in excess of a one-half revolution. Hence after the device is once in position it will be impossible to separate or uncouple the bridle-bar from the connecting-rod or the latter from the crank-shaft, or to otherwise tamper with the device without breaking the parts by the employment of such force as will lead to immediate detection.

While I have in the foregoing described the preferred construction of my improved switch-stand, I desire it to be understood that I reserve the right to any changes and qualifications which may be resorted to without departing from the spirit of my invention.

Having thus described my invention, what I claim is—

1. In a switch-stand, the combination of the base-plate having the uprights, the disk or table supported at the upper end of said uprights and having a central opening, and a cross-bar connecting said uprights and hav-

ing an opening in alignment with the central opening of the disk or table and partially surrounded by a downwardly-extending flange, substantially as set forth.

2. A switch-stand comprising the base-plate, the uprights, the disk or table supported at the upper ends of said uprights and having a central opening, and a cross-bar connecting said uprights and having an opening in alignment with the central opening in the disk or table and partially surrounded by a downwardly-extended flange, in combination with a shaft journaled in said openings and provided at its lower end with a forwardly-extending crank normally engaging the lower edge of said downwardly-extending flange, substantially as and for the purpose set forth.

3. The combination of the stand comprising the base-plate having an opening, the uprights supporting a disk or table in a central opening, and a cross-bar connecting said uprights and having an opening in alignment with the said central opening and partially surrounded by a downwardly-extending flange, and a shaft journaled in said openings or bearings and having a crank normally engaging the lower edge of said downwardly-extending flange, substantially as and for the purpose set forth.

4. In a switch-stand, the combination of a stand provided with suitable bearings, a vertical shaft journaled in said bearings and provided with a crank at its lower end, a flange partially surrounding and extending downwardly from the lower bearing to engage the upper side of said crank, a connecting-rod connected pivotally with the latter and resting normally upon the base-plate of the stand, and a foot-bar or bridle-bar connected pivotally with the outer end of said connecting-rod, substantially as and for the purpose set forth.

5. The combination of the stand having the uprights supporting a disk or table, the crank-shaft journaled in suitable bearings in said stand, a flange extending downwardly from the lower bearing and normally engaging the upper side of the crank, a connecting-rod connected pivotally with the latter and resting normally upon the base-plate of the stand, a cap-disk secured upon the crank-shaft and having a recess or pocket, and an operating-latch pivoted in the latter and adapted to engage any one of a series of recesses in the disk or table, substantially as set forth.

6. In a switch-stand constructed substantially as described, the combination, with the cap-disk having a recess or pocket and provided on its inside with a longitudinally-slotted block or projection, of an operating-latch pivoted in said recess or pocket, extending through the longitudinally-slotted block and having a perforation to receive a padlock, substantially as set forth.

7. In a switch-stand of the character herein described, the combination, with the connecting-rod provided at its outer end with a downwardly-extending pin and an outwardly-extending flange, of the foot-bar or bridle-bar  
5 having an opening or perforation and a flanged shoulder, substantially as and for the purpose herein set forth.

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

ALBERT ARRINGTON GIBSON.

Witnesses:

LEE W. SPRATLEN,  
W. H. JOHNSON.