

No. 770,391.

PATENTED SEPT. 20, 1904.

J. S. RUTH.
WASHING MACHINE.
APPLICATION FILED MAR. 8, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

FIG. 1.

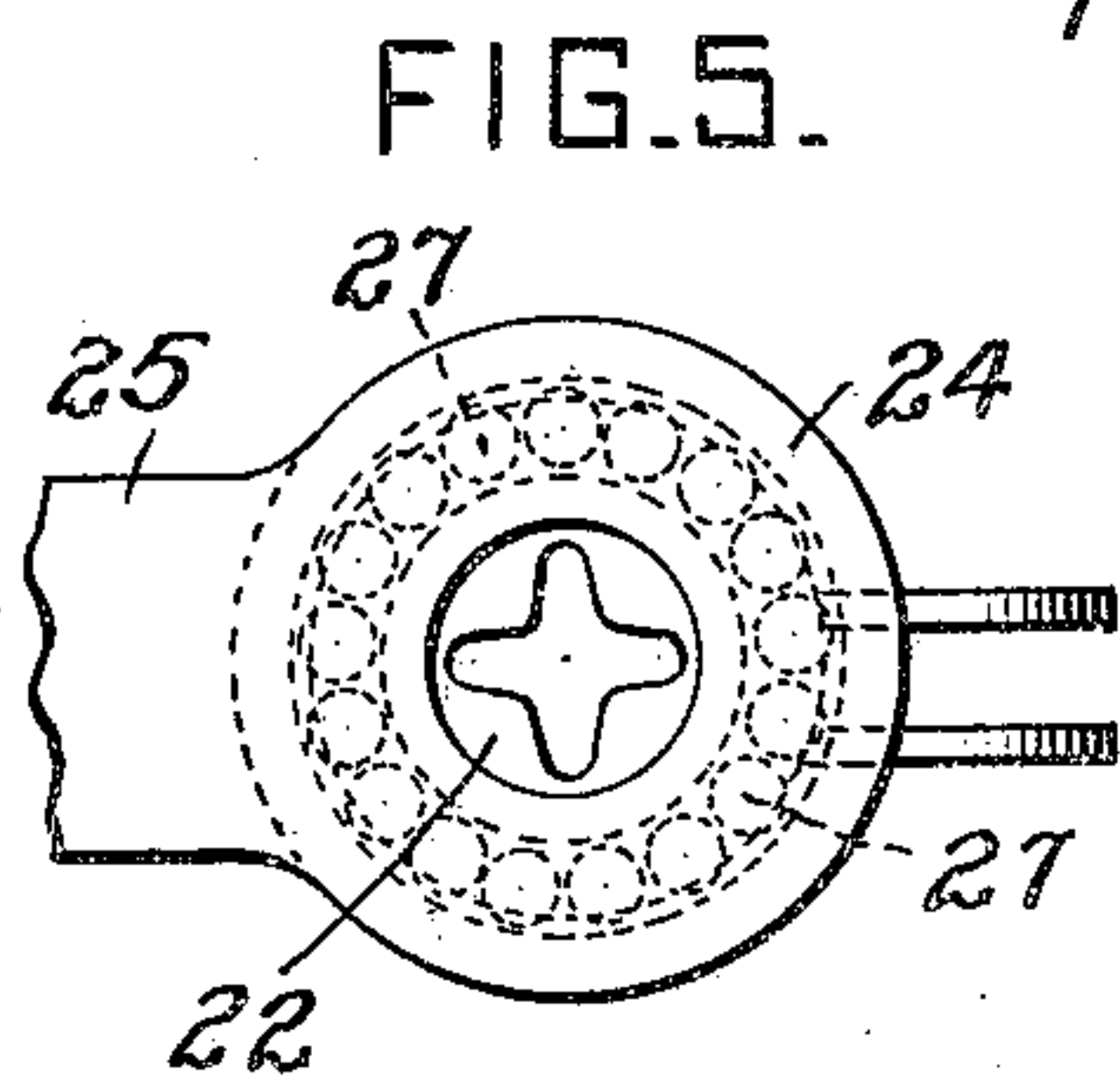
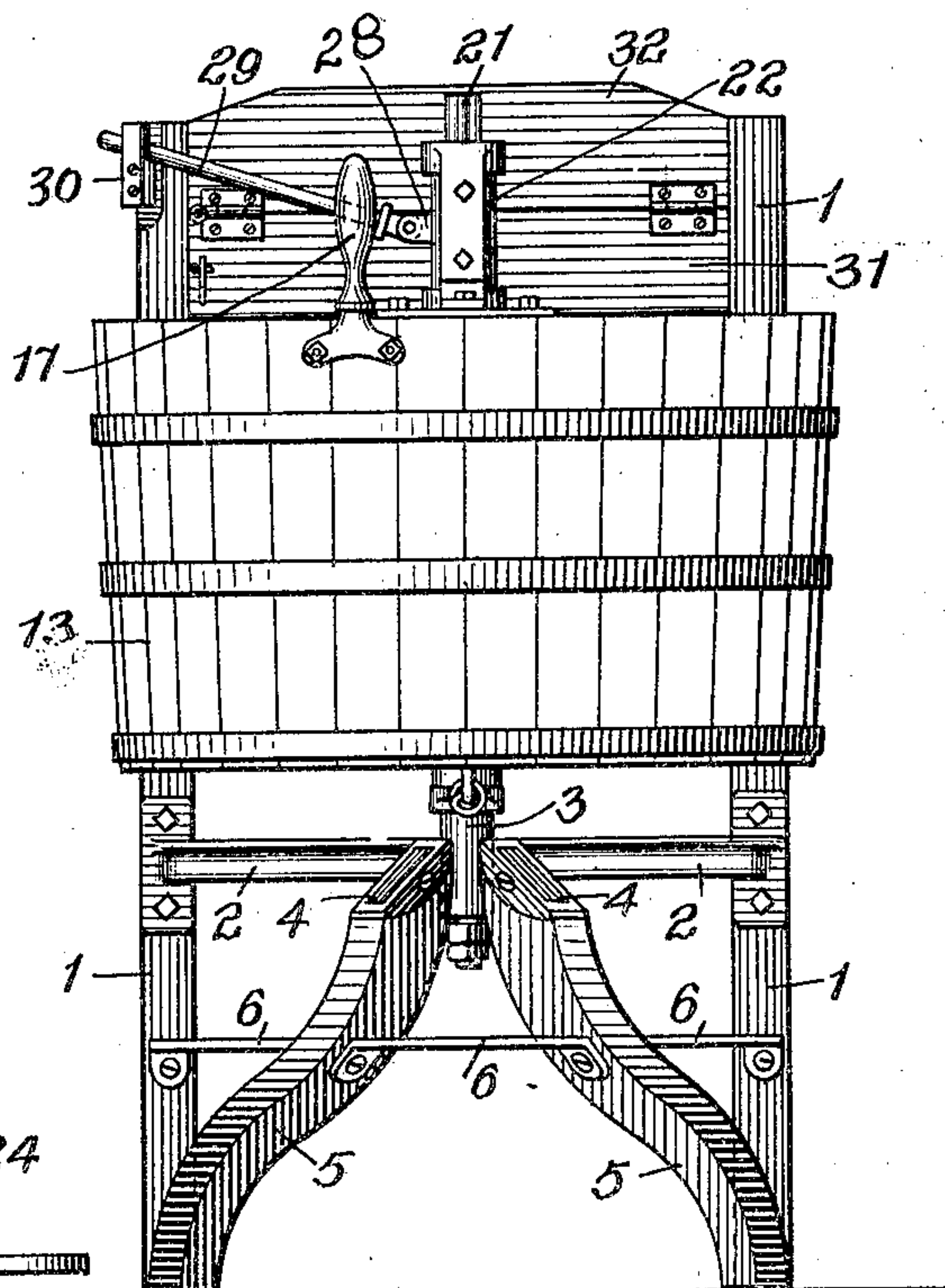


FIG. 5.

FIG. 4.

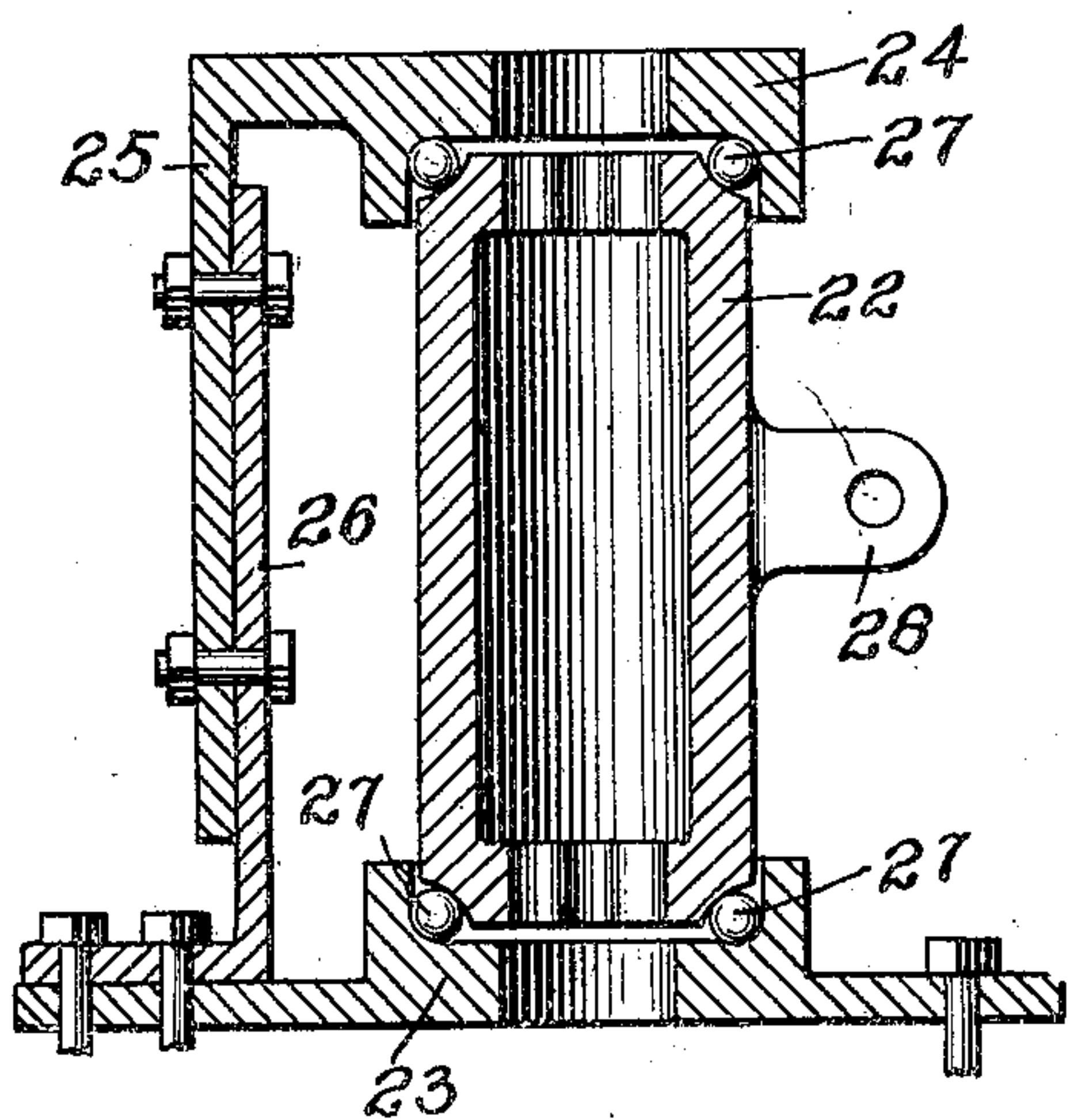
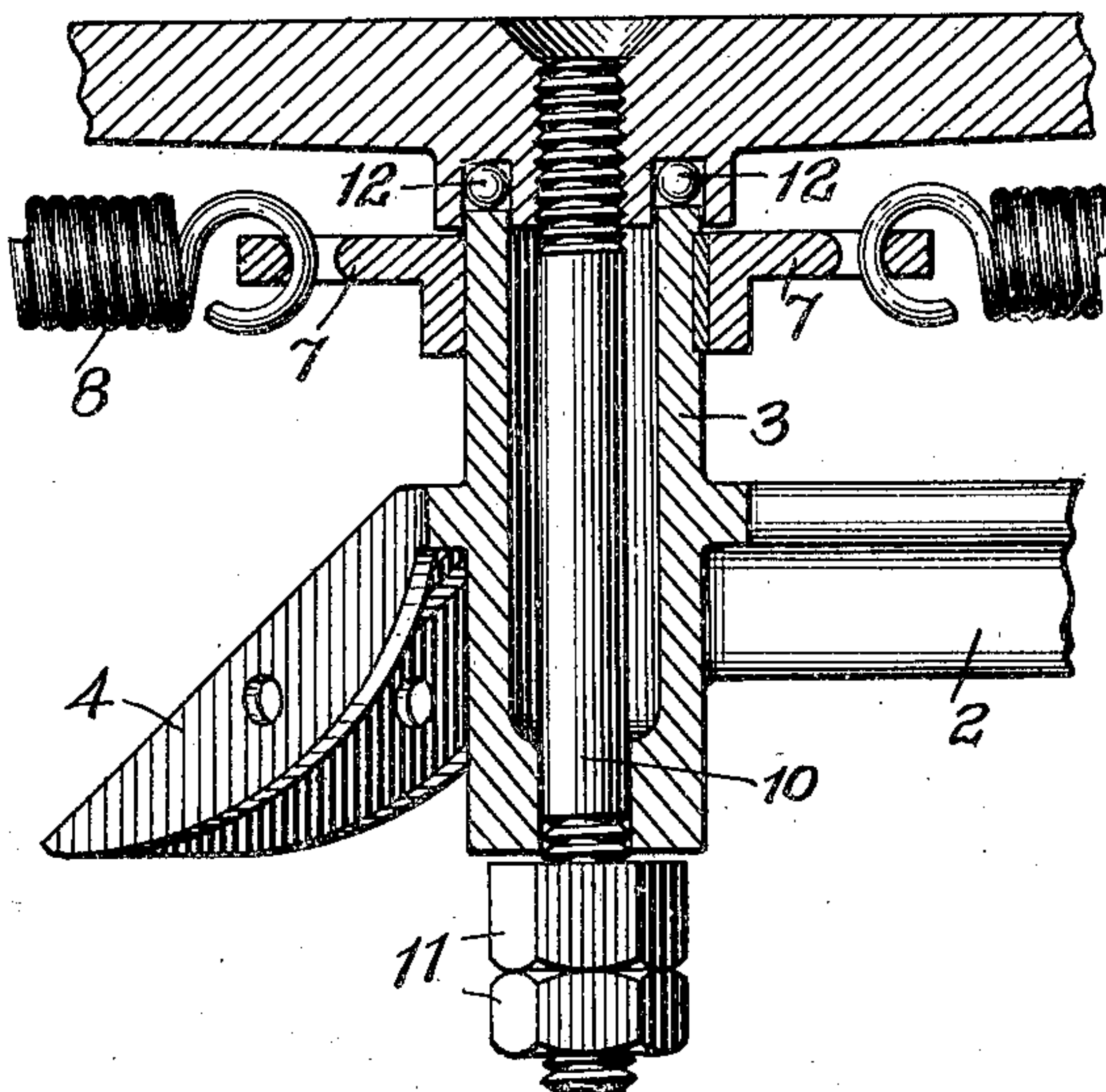


FIG. 2.



WITNESSES:

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Fred Kirchner.

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2 SHEETS—SHEET 2.

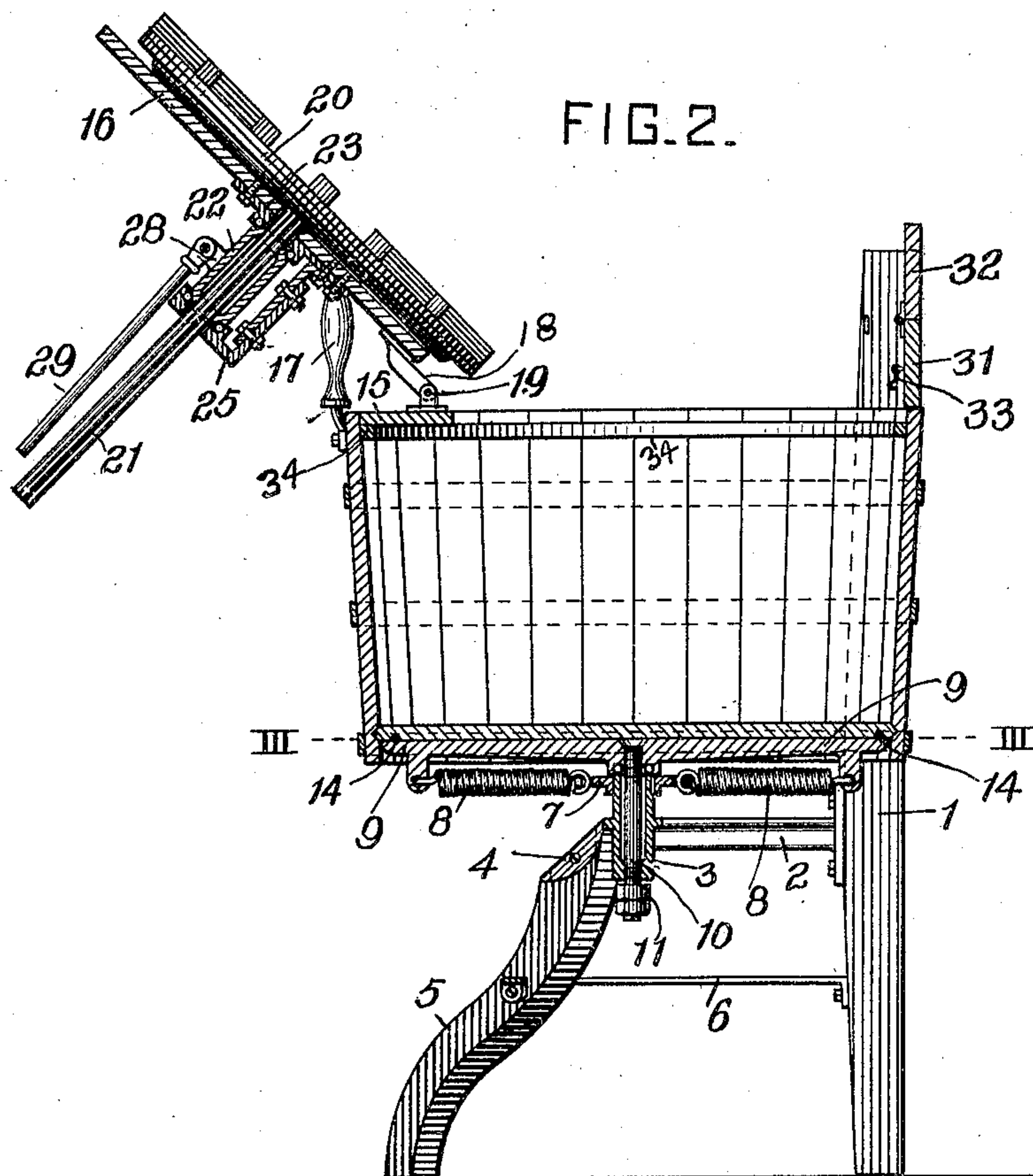
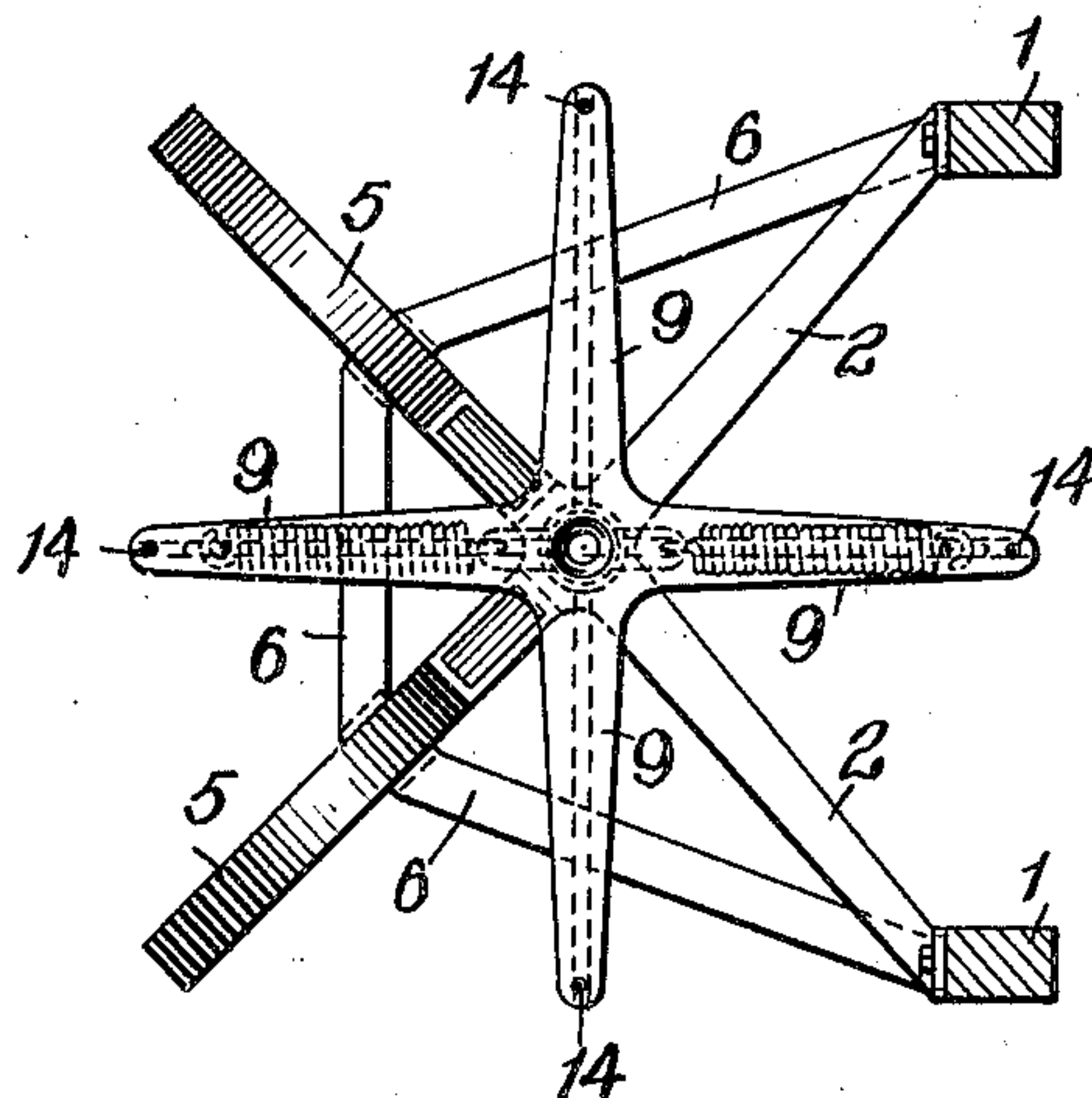


FIG. 3.



WITNESSES:

Herbert Bradley.
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INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN S. RUTH, OF YOUNGSTOWN, OHIO, ASSIGNOR OF ONE-HALF TO
C. R. DARROW, OF YOUNGSTOWN, OHIO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 770,391, dated September 20, 1904.

Application filed March 8, 1904. Serial No. 197,107. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. RUTH, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented or discovered certain new and useful Improvements in Washing-Machines, of which improvements the following is a specification.

The invention described herein relates to certain improvements in clothes-washing machines, and has for its object a construction of tub and cover whereby the tub is sealed during the washing operation, so as to prevent the escape of steam, water, &c.

It is a further object of the invention to provide suitable means whereby the rubbing-disk may be held as against rotation with the tub and will be free to rise and fall in the tub independent of the cover.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a front elevation of my improved washing-machine. Fig. 2 is a sectional elevation of the same, showing the cover and rubbing-disk tipped back to permit access to the tub. Fig. 3 is a sectional plan view on the plane indicated by the line III III, Fig. 2. Fig. 4 is a sectional detail view illustrating the means for holding the rubbing-disk from rotation. Fig. 5 is a sectional plan view of the construction shown in Fig. 4; and Fig. 6 is a sectional detail view, on an enlarged scale, of a portion of the spider supporting the tub and the supports for such spider.

In the practice of my invention I provide two posts or uprights 1, which preferably extend above the upper edge of the tub when the latter is in position, and to these legs or posts are secured arms 2, extending from the socket 3. This socket is also provided with pockets 4 for the reception of the upper ends of the legs 5, which are preferably connected to the posts or legs 1 by braces 6. The socket 3 is provided with lugs 7, to which are connected springs 8, having their outer ends connected to two opposite arms of the spider 9. This spider is provided with a central post or

stem 10, projecting down through the socket 3 and held from removal by any suitable means, as the nuts 11. It is preferred to interpose antifriction-balls 12 between the hub of the spider and the upper end of the socket 3, so as to facilitate the rotation of the spider, upon which is placed the tub 13. Ordinarily the weight of the tub and its contents would be sufficient to prevent independent movement of the tub and spider; but, if desired, the spider may be provided with small pins 14, which will project into the bottom of the tub.

The cover of the tub is formed in two sections 15 and 16, and the small section 15 is secured within the tub at or near its upper end. The section 16 is hinged to the section 15 in such manner that when turned down the sections will completely close the tub. When turned back, the cover is supported by the handle 17. For convenience in handling it is preferred to so construct the hinges 18 that its members may be separated one from the other by the removal of the pintle-pins 19. The rubbing-disk 20, the under surface of which may be constructed in any suitable or desirable manner, is connected to a shaft 21, extending up through the cover 16. This shaft passes through a sleeve 22, having its lower end arranged in a socket on a plate 23, secured to the cover 16. The upper end of the sleeve 22 is supported by a socket 24, formed on a bracket 25, which is designed to be secured to an arm 26, projecting up from the plate 23. As shown in Fig. 5, the interior of the sleeve is made angular in cross-section, as is also the shaft 21 of the rubber, so that the shaft will be held from rotation by the sleeve, which in turn is locked as against rotation, as hereinafter described. As the plate 23 with its socket and the holding-socket 24 rotate with the cover, it is preferred to place friction-rollers 27 between the sleeve 22 and the walls of the sockets, so as to facilitate the movement of the tub. The sleeve 22 is provided with a lug 28, having a rod 29 pivotally connected thereto, said rod when the tub is to be oscillated being turned down so as to engage a notch or other checking device 30 upon the upper end of one of the legs 1. By this construction

the rubbing-disk will be held stationary, but will be free to move up and down in the tub during the oscillation of the latter.

It is preferred to pivotally connect an apron 5 31 to the wringer-board 32, secured to the upper end of the posts 1, so that it can be shifted with its lower edge over the tub to direct water from the wringer into the tub, a hook 33 or other suitable catch being employed to hold the drain-board in inclined position. 10

It is characteristic of my improvement that the tub remains at all times when in use closed, preventing the escape of steam therefrom, the edges of the cover bearing upon a ledge 34 15 within the tub and the sleeve 22 forming a comparatively tight joint around the shaft of the rubbing-disk.

The several parts of the machine are capable 20 of being separated for convenience in handling. By the removal of the pintle-pins 19 the cover and rubbing-disk can be lifted off together, and then the tub can be lifted from the spider.

25 I claim herein as my invention—

1. In a washing-machine, the combination of an oscillating tub, a removable cover for the tub, a rubbing-disk arranged in the tub and provided with a shaft, angular in cross-section, extending through the cover, a sleeve 30 fitting loosely on said shaft and movably mounted on the cover, and a rod connected to the sleeve and adapted to engage a stationary portion of the machine, substantially as set forth. 35

2. A washing-machine having in combination an oscillating tub, a sectional cover therefor, said sections being separably hinged to-

gether and one of said sections being secured to the tub, a rubbing-disk arranged in the tub 40 and having an angular shaft extending through the movable section of the cover, a sleeve fitting loosely on the shaft and having antifriction-bearings secured to the movable section of the cover, and a rod pivotally connected to 45 the sleeve and adapted to engage a stationary portion of the machine, substantially as set forth.

3. A washing-machine having in combination two posts or uprights, a socket provided 50 with arms secured to said posts or uprights, pockets formed integral with the socket, legs having their upper ends secured in the pockets, a spider provided with a pin or stem arranged in the socket, springs having their 55 ends connected respectively to arms of the spider and to the socket, and a tub supported by the spider, substantially as set forth.

4. A washing-machine having in combination an oscillating tub, a sectional cover therefor, said sections being hinged together, and one of said sections being secured to the tub, a rubbing-disk arranged in the tub and having an angular shaft extending through the 60 movable section of the cover, a sleeve fitting loosely on the shaft and movably mounted on the movable section of the cover, and a rod connected to the sleeve and adapted to engage a stationary portion of the machine, substantially as set forth. 65

In testimony whereof I have hereunto set my hand. 70

JOHN S. RUTH.

Witnesses:

G. B. SMITH,
CHAS. F. RICE.