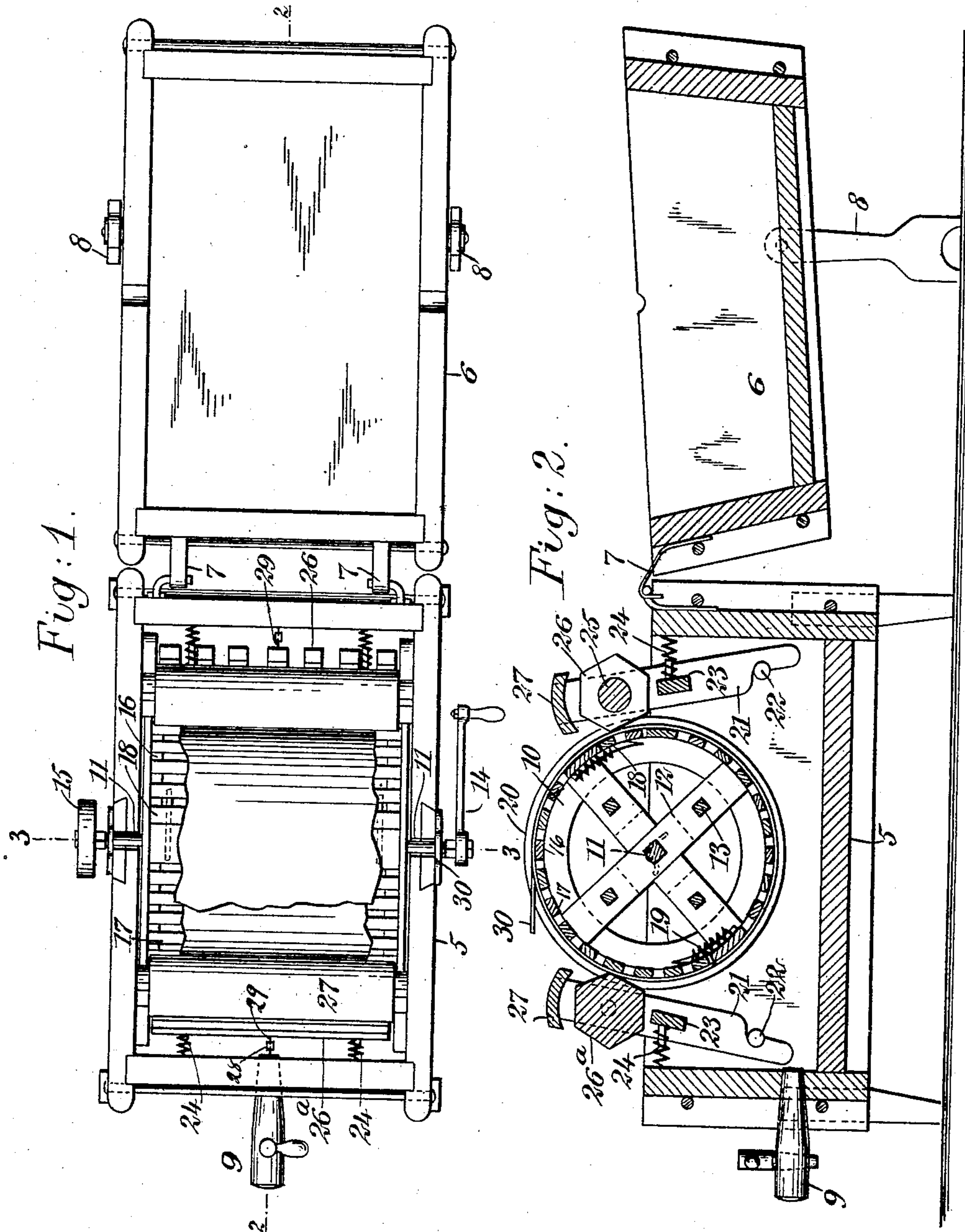


No. 864,018.

PATENTED AUG. 20, 1907.

C. E. MITCHELL.
WASHING MACHINE.
APPLICATION FILED MAY 9, 1906.

2 SHEETS—SHEET 1.



WITNESSES
J. Nussblatt
R. R. Ferguson

INVENTOR
Curran E. Mitchell
BY *Mumma & Co*
ATTORNEYS

No. 864,018.

PATENTED AUG. 20, 1907.

C. E. MITCHELL.
WASHING MACHINE.

APPLICATION FILED MAY 9, 1906.

2 SHEETS—SHEET 2.

Fig: 3.

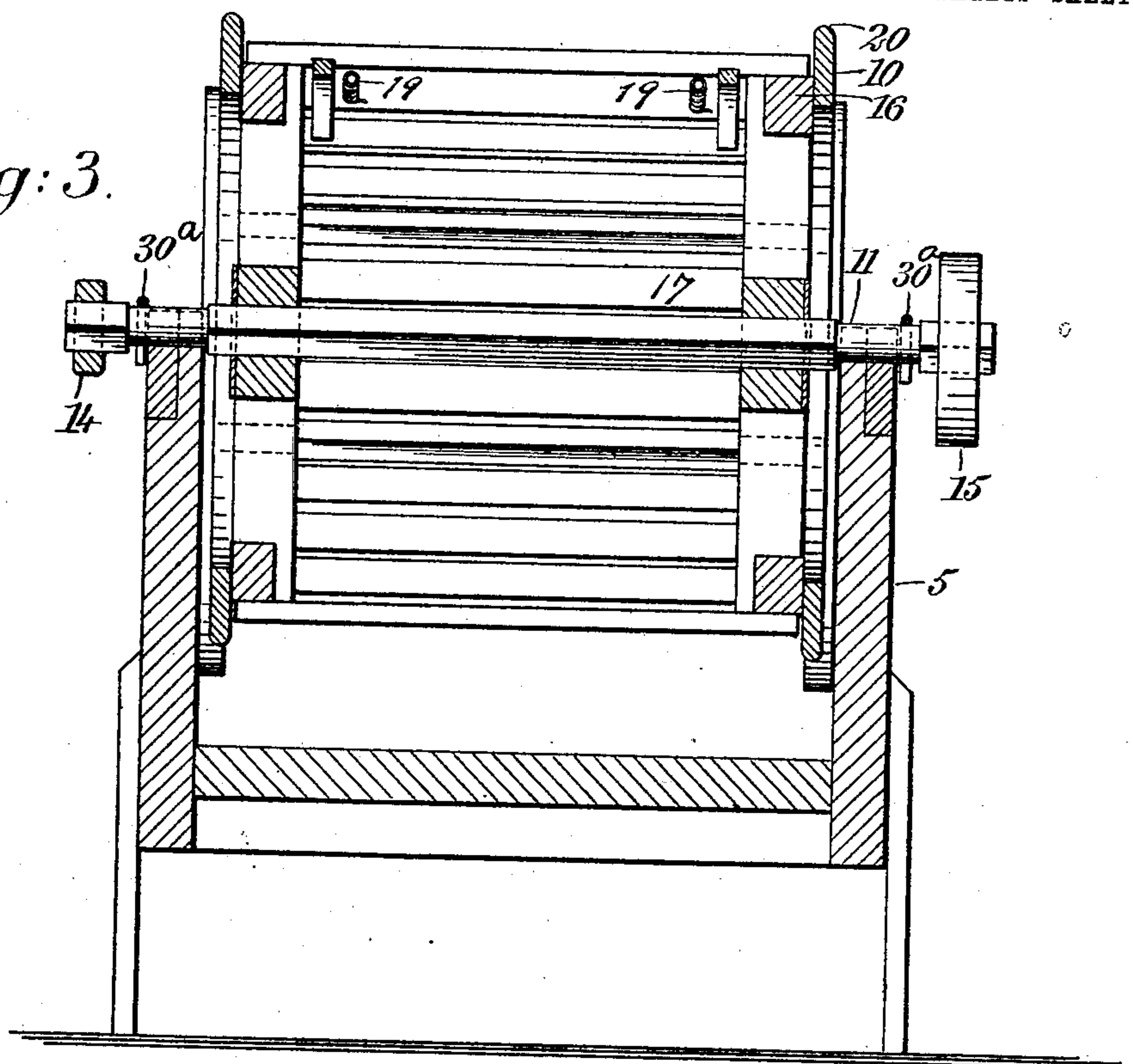


Fig: 4.

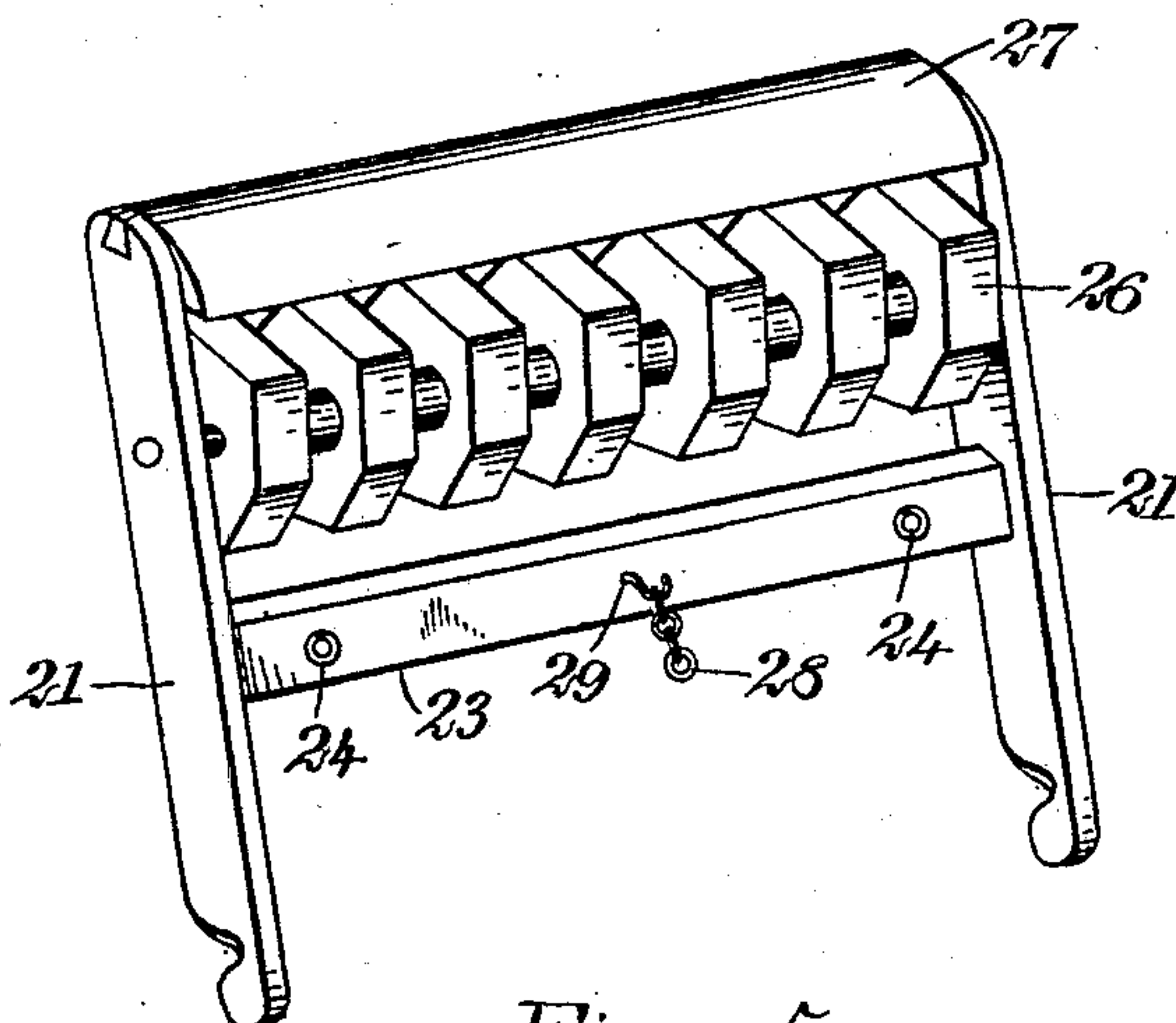
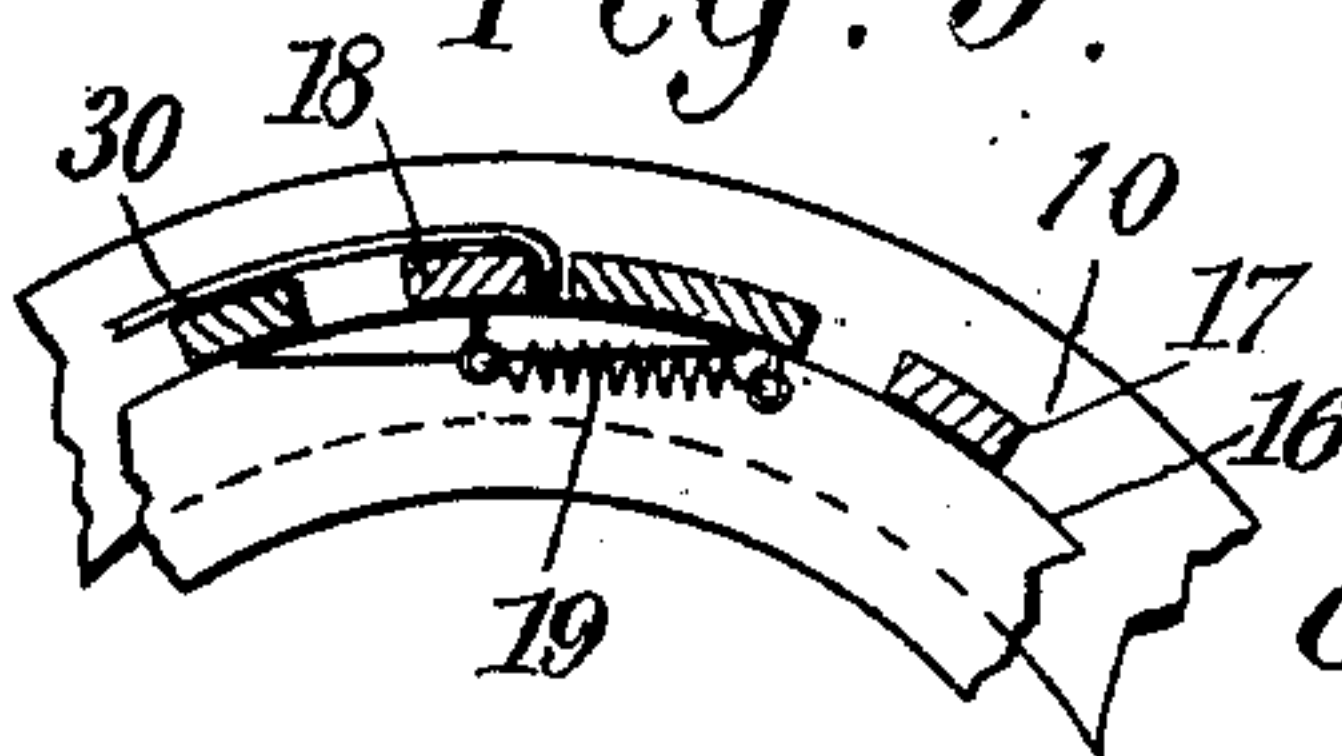


Fig: 5.



WITNESSES

J. Muesel
C. R. Ferguson

INVENTOR

Curran E. Mitchell

BY *Mumco*

ATTORNEYS

UNITED STATES PATENT OFFICE.

CURRAN E. MITCHELL, OF FORT PAYNE, ALABAMA.

WASHING-MACHINE.

No. 864,018.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed May 9, 1906. Serial No. 315,946.

To all whom it may concern:

Be it known that I, CURRAN E. MITCHELL, a citizen of the United States, and a resident of Fort Payne, in the county of Dekalb and State of Alabama, have invented

5 a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

This invention relates to improvements in clothes washing machines, an object being to provide a washing machine by means of which clothes may be quickly

10 and thoroughly washed and without danger of tearing or damaging the finest of fabrics.

I will describe a washing machine embodying my invention and then point out the novel features in the appended claims.

15 Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 shows in plan a washing machine embodying my invention; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is a section on the line 3—3 of Fig. 1; Fig. 4 is a perspective view of one of the scrubbers employed; and Fig. 5 is a sectional detail illustrating one of the clothes clamping devices.

25 Referring to the drawings, 5 designates a tub and 6 a cover therefor, the said cover having hinged connection 7 with the tub, and when the machine is in use the cover may be turned down as indicated in Figs. 1 and 2, to form a rinsing tub; it is supported in this position by means of legs 8 pivoted to the cover so that when the cover is closed, the legs may be folded against the sides thereof. The tub is provided with a faucet 9 through which water may be drawn off after the washing operation.

35 Mounted to rotate in the tub is a carrying drum for the material to be washed; this drum, as here shown, consists of ring-like end pieces 10 supported on a shaft 11 by means of spokes 12, opposite spokes being connected by brace-bars 13. The shaft 11 has bearings in the side walls of the tub 5 and is designed to be engaged at one end by a crank-handle 14 so that the drum may be operated manually, or it may be driven by any desirable motor having a band connection with a pulley 15 on the shaft. The ring-like end pieces 10 of the drum have inwardly-extended flanges 16 to which a plurality of bars 17 are secured; these bars 17 being spaced apart so as to permit the entrance of water into the drum. At certain points in the drum construction, I provide clamping devices for engaging with the material to be washed, so that the material will be carried around with the rotary movement of the drum. The clamping devices consist of sliding bars 18 co-acting with adjacent fixed bars, and the said sliding bars move circumferentially of the drum and are held yieldingly

55 by means of springs 19. It will be noted that the end pieces of the drum have flanges 20 which extend out-

ward from the bars and are designed to prevent the clothing slipping over the ends of the drum.

Mounted to swing in the tub at opposite sides of the drum are frames consisting of arms 21, which arms are 60 fulcrumed on studs 22, and the opposite arms of a frame are connected by a bar 23, and between these bars 23 and the end walls of the tub are expanding springs 24 which hold the frames yieldingly toward the drum.

Mounted in each frame is a shaft 25 and on one shaft 65 is a plurality of spaced scrubbing disks 26, the said disks as here shown, being angular in cross-section; and on the other shaft is an angular roller 26^a, and above the scrubbing disks and the roller are curved guard boards 27 which prevent clothing from winding around the 70 disks, with the possibility of tearing or damaging the same. The scrubbing disks may be held at any desired distance from the drum by means of chains 28 connected to the end walls of the tub and designed to engage with hooks 29 on the cross-bars. Obviously, 75 any link of a chain may be engaged to its hook.

In operation, a sufficient amount of water is to be placed in the tub and the article to be washed is to have its end clamped to the drum by the means before mentioned; then, by rotating the drum the material 80 to be washed will be carried through the water and scrubbed by the devices 26 and 26^a.

In Figs. 2 and 5 I have indicated a piece of clothing 30 as clamped to the drum. The drum is prevented from accidental upward movement when the device is 85 in operation, by means of hooks 30^a pivoted to the sides of the tub and adapted to engage over the shaft. By this arrangement, the drum may be readily removed for cleaning, when necessary.

In the operation, the clothing first passes from the 90 water to the disks 26, so that the water is partly pressed out between the disks and drum and returns to the tub, and then as the clothing passes between the drum and the roller the dirt is scrubbed out.

Having thus described my invention, I claim as new, 95 and desire to secure by Letters Patent;—

1. A washing machine, comprising a tub, a drum mounted to rotate therein, frames mounted to swing in the tub at opposite sides of the drum, a plurality of angular disks mounted to rotate in one of the frames, and a 100 roller mounted in the other frame.

2. A washing machine comprising a tub, a drum mounted to rotate therein, yieldingly mounted frames arranged in the tub at opposite sides of the drum, a plurality of angular disks mounted to rotate in one of the frames, and an angular roller mounted in the other frame. 105

3. In a washing machine, a tub, a drum mounted to rotate therein, spring pressed frames arranged to swing in the tub at opposite sides of the drum, a plurality of angular disks mounted to rotate in one of the frames, and an angular roller mounted in the other frame. 110

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CURRAN E. MITCHELL.

Witnesses:

RICE GRAVES,
I. M. PRESLEY.