

No. 721,138.

PATENTED FEB. 24, 1903.

R. C. BEEKMAN.
CLOTHES WRINGER.

APPLICATION FILED JUNE 6, 1902.

NO MODEL.

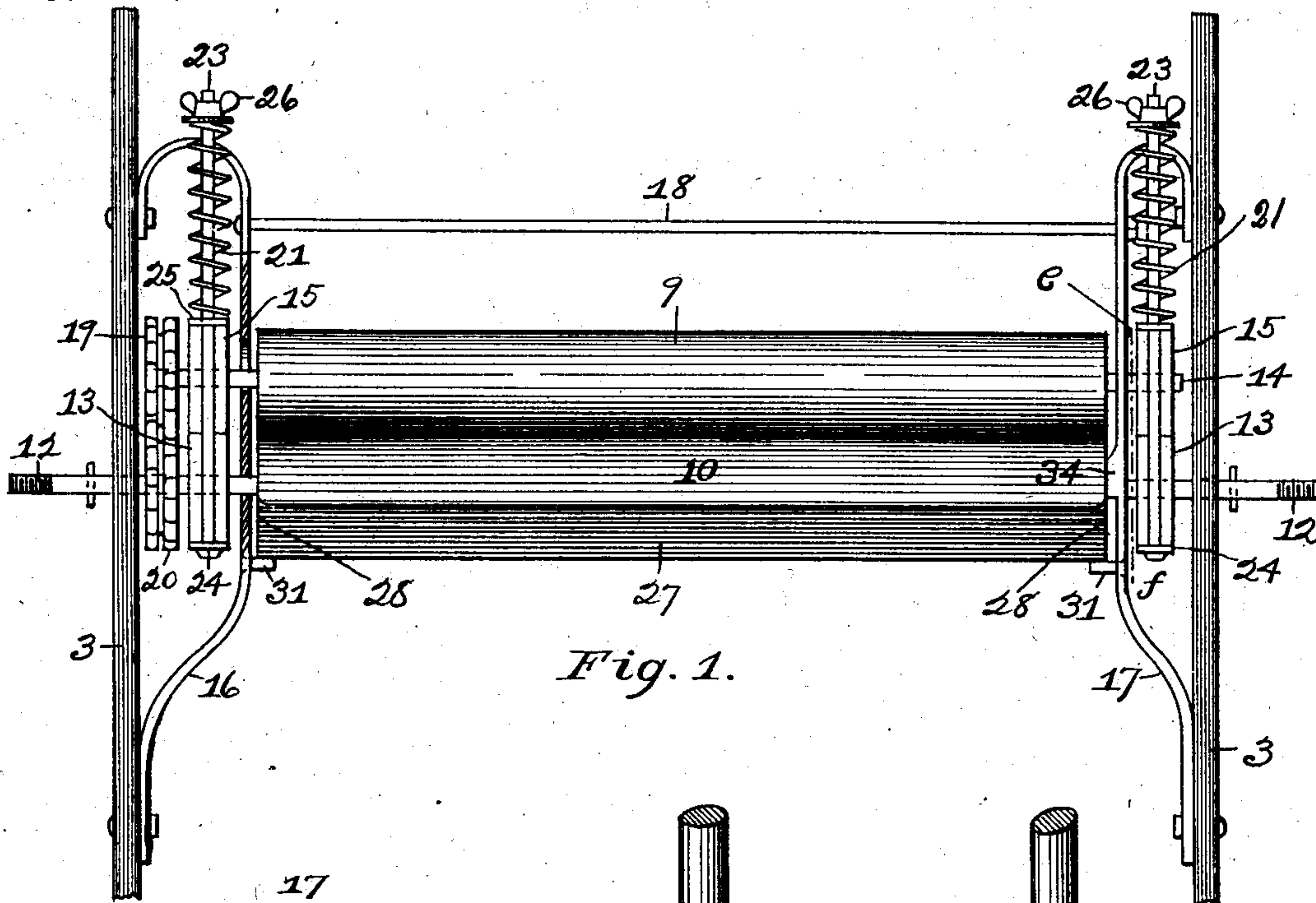


Fig. 1.

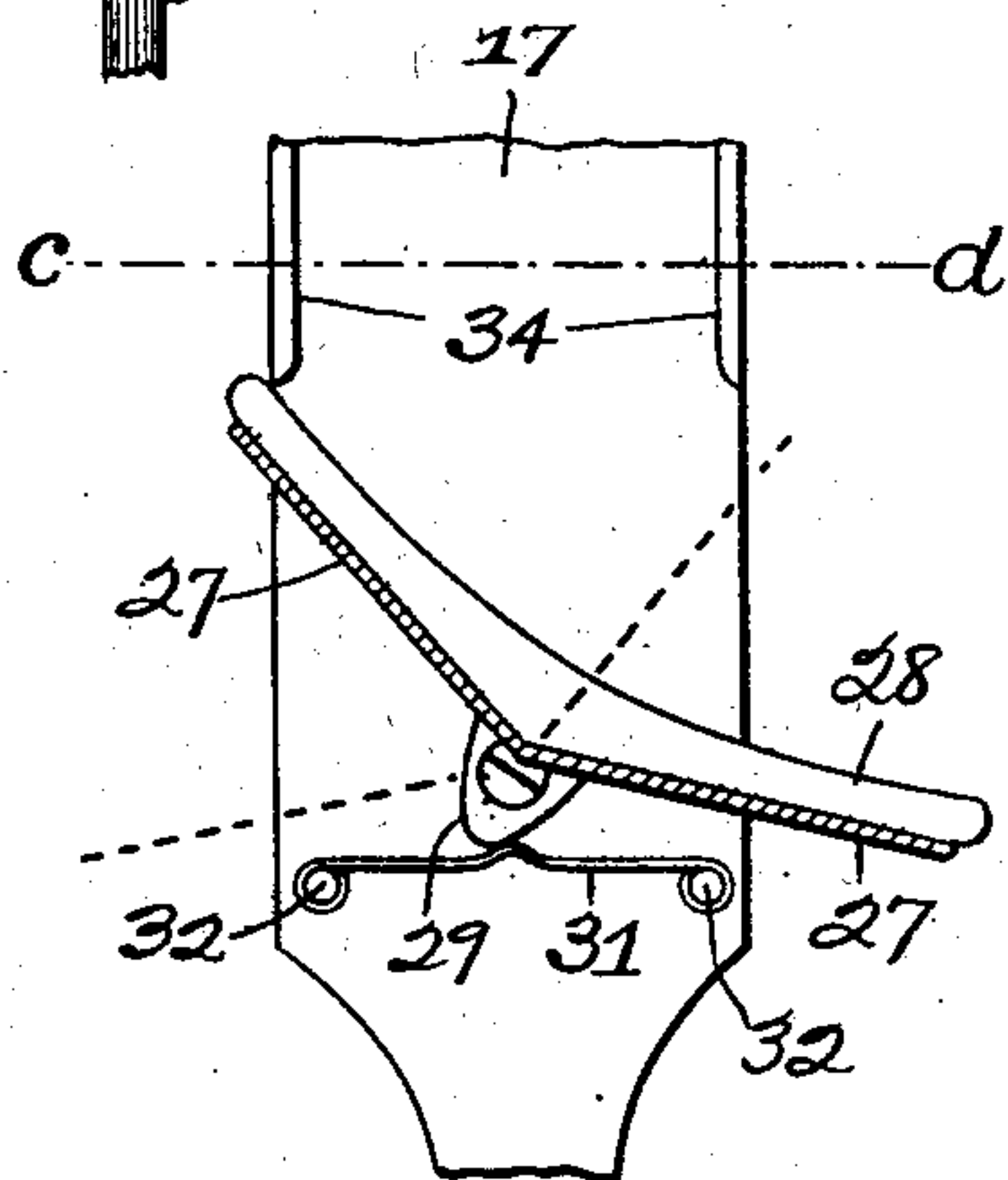


Fig. 2.

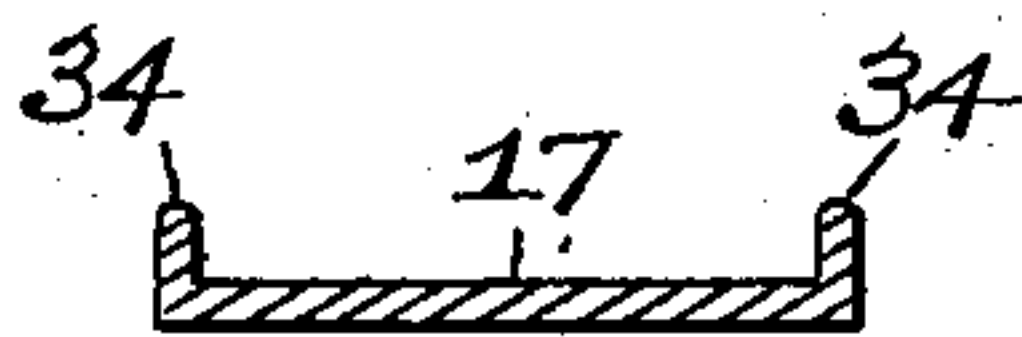


Fig. 3.

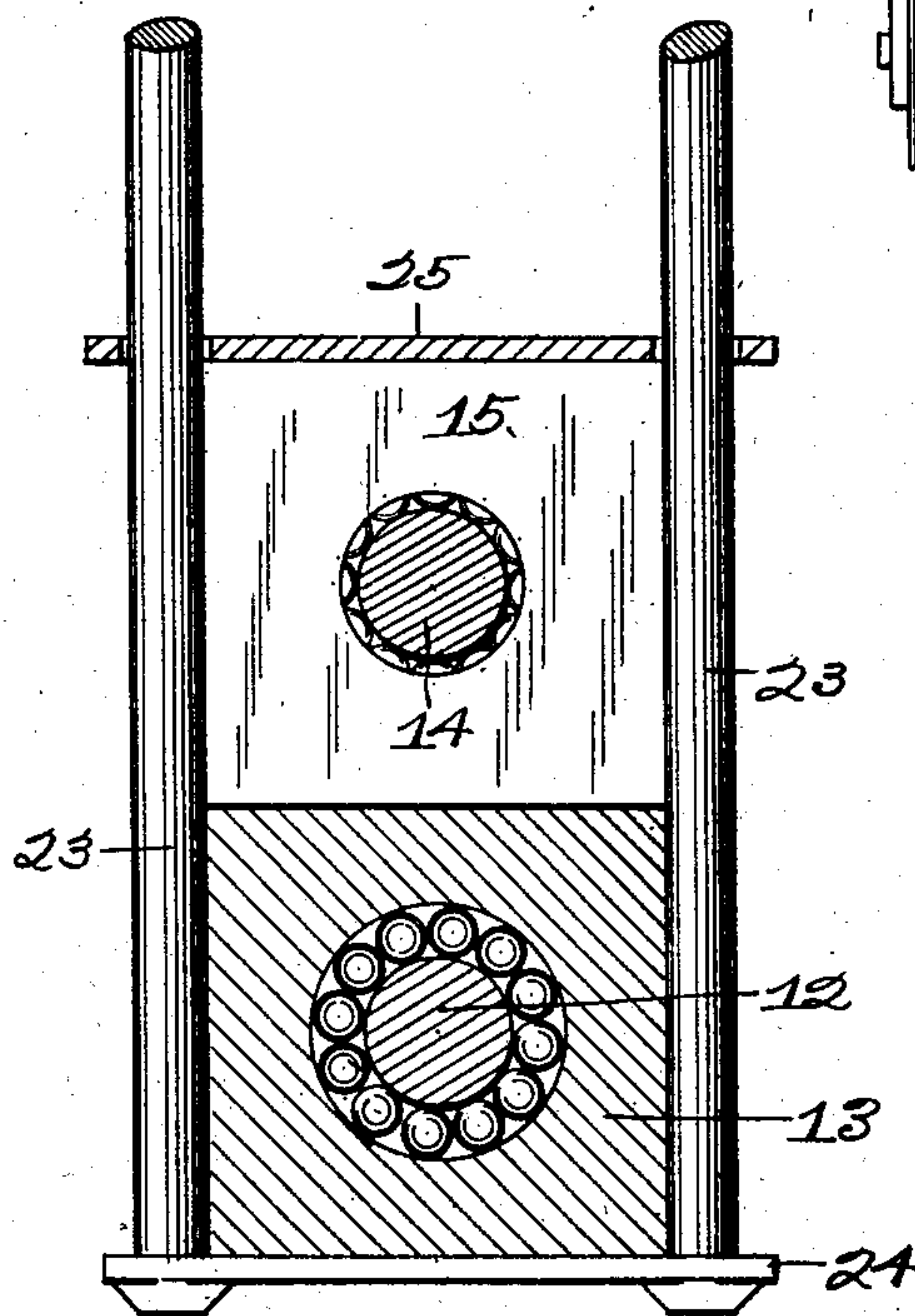


Fig. 4.

WITNESSES:

K. M. Imboden,
W. L. Lange

INVENTOR,

Ross C. Beekman,

By Higdon & Higdon
Attys

UNITED STATES PATENT OFFICE.

ROSS C. BEEKMAN, OF INDEPENDENCE, KANSAS.

CLOTHES-WRINGER.

SPECIFICATION forming part of Letters Patent No. 721,138, dated February 24, 1903.

Application filed June 6, 1902. Serial No. 110,438. (No model.)

To all whom it may concern:

Be it known that I, ROSS C. BEEKMAN, a citizen of the United States, residing at Independence, in the county of Montgomery and State of Kansas, have invented new and useful Improvements in Clothes - Wringers, of which the following is a specification.

My invention relates to clothes-wringers; and the object of my invention is to produce a wringer of improved construction with respect to the roller tension devices and the water-shedding device.

Referring to the accompanying drawings, Figure 1 is an enlarged elevation of a wringer embodying my invention, omitting the crank. Fig. 2 is an enlarged transverse section of the watershed and one of its springs. Fig. 3 is a section of the plate 17, taken on line *c d* of Fig. 2. Fig. 4 is an enlarged irregular section, taken on line *e f* of Fig. 1, omitting the springs, the lower bearing-box being in section.

9 and 10 designate, respectively, the upper and the lower roll. The shaft 12 of the lower roll projects through holes in the standards 3 and is adapted to receive a crank at either of its ends. Said shaft passes through a pair of ball-bearings mounted in rectangular blocks or boxings 13. As ball-bearings are employed, they reduce the friction of operating the wringer to a minimum and no oil need be used.

The shaft 14 of the upper roll is mounted in ball-bearings contained in rectangular boxings 15. These boxings 15 rest upon the respective lower boxings 13.

The upper-roll shaft 14 is held in alinement above the lower shaft 12 by a pair of detachable supporting-yokes 16 and 17, which contain slots through which the upper shaft passes. The upper ends of yokes 16 17 are bent downwardly and bolted to the respective standards 3, and their lower ends are also bolted to said standards. They are connected above the upper roll by a tie-bolt 18. The crank-shaft 12 passes through circular openings in said yokes 16 and 17.

19 and 20 are the gear-wheels by which rotation is imparted from the crank-shaft 12 to the upper-roll shaft 14.

The tension devices for pressing the top roll down upon the under roll consist of helical expansion-springs 21, mounted upon vertical bolts 23. Beneath each lower boxing 13 is a

plate 24, having perforated ends through which a pair of said bolts pass upwardly along-side the boxings. Said bolts pass through a similar plate 25, supported by the upper boxing, and extend upwardly several inches thereabove. On the upper end of each of said bolts is a wing-nut 26, beneath which is a washer. The springs 21 are confined between these washers and the upper plates 25, and hence press the upper and lower boxings together. The pressure of said springs is adjustable by turning the wing-nuts 26, the bolts 23 being non-rotatable. The upper portions of the bent yokes 16 and 17 are narrow enough to pass between the respective pairs of springs 21.

Below the under roll 10 is my improved reversible water-shed plate 27, which may be set to shed the water wrung from the clothes toward either side of the wringer. The shed is a rectangular plate, of sheet metal, bent to form two oppositely - inclined surfaces, as shown in Fig. 2. A lever 28 is pivotally secured to the inner side of each yoke 16 17, and the ends of the shed-plate 27 are secured to said levers by rivets or otherwise. Thus the shed-plate may be set at two different positions, as indicated in Fig. 2. When in the position shown in full lines, it would shed water to the right. When in the dotted-line position, it would shed to the left. On each lever 28, or on one of them below its pivoted portion, is a short lug 29, which may be either pointed or rounded. A bent flat spring 31 is secured below said lug by having its ends curled around two pins 32, projecting inwardly from yoke 16 or 17. Said springs are adjusted to bear up against the lugs 29 and will thereby retain the shed-plate 27 in either of its extreme positions. Stops for limiting the throw of the shed-plate levers 28 may be provided, such as flanges 34 on the edges of yoke 17, or any preferred device for this purpose may be employed.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

In a clothes-wringer, the combination of a pair of standards, an upright detachable supporting-yoke secured to the inner side of each standard, extending to a distance therefrom, each of said yokes having a vertical slot therein, a tie-bolt connecting said yokes together,

an upper and a lower roll shaft carrying rolls, the upper-roll shaft passing through said slots, a spring-actuated tilting water-shed mounted under said rolls, the lower-roll shaft projecting through said standards, ball-bearings on each roll-shaft, said bearings lying between said yokes and said standards, boxings containing said bearings, the upper boxings being normally in contact with the lower boxings, plates 24 beneath the respective lower boxings, plates 25 upon the respective upper boxings, the ends of said plates having openings therein, vertical bolts passing through said openings, nuts on the upper ends of said bolts, and coiled expansion-springs surrounding said bolts between said nuts and said upper boxings; substantially as and for the purpose described.

In testimony whereof I affix my signature in the presence of two witnesses.

ROSS C. BEEKMAN.

Witnesses:

M. L. LANGE,

K. M. IMBODEN.