

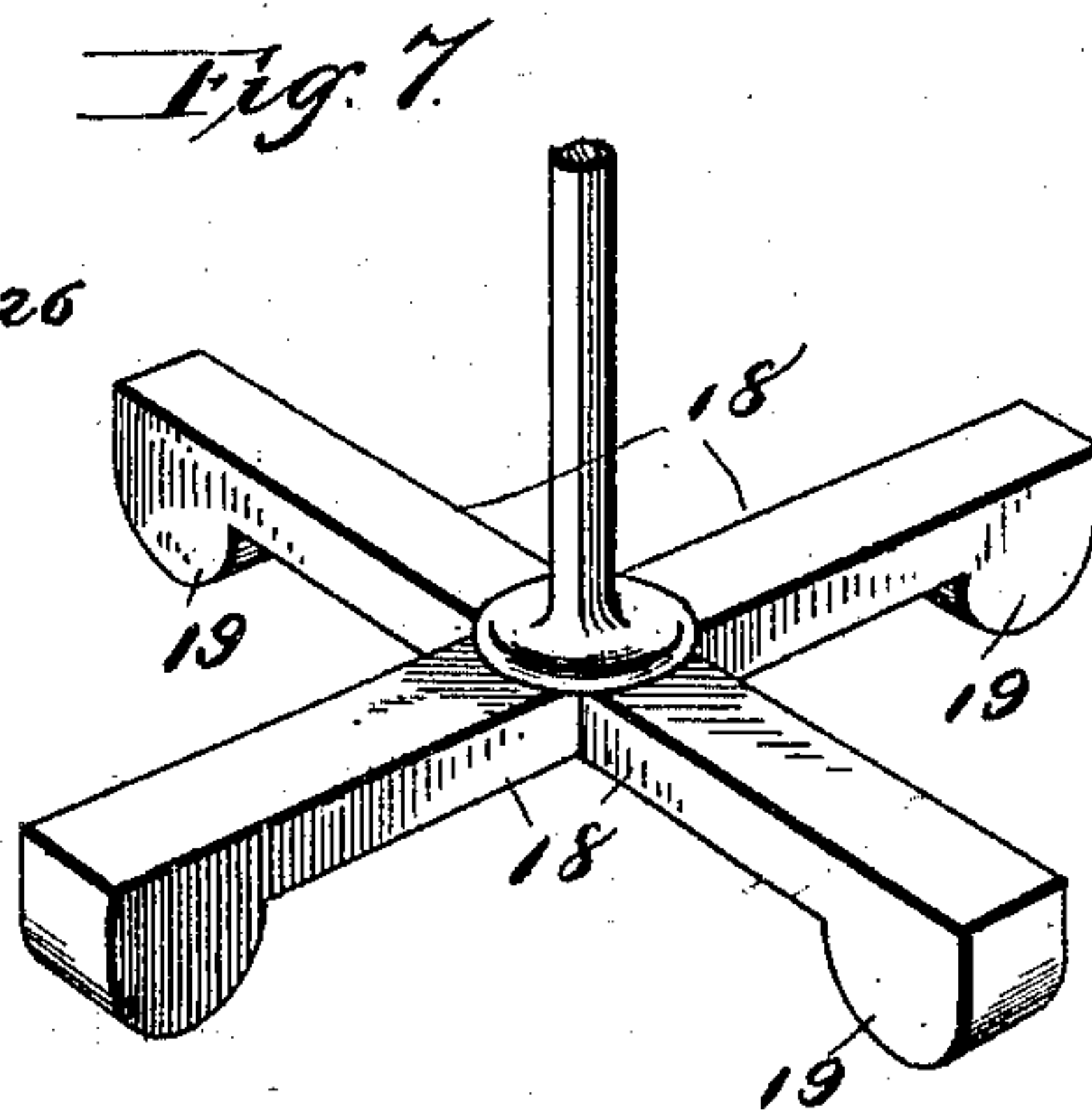
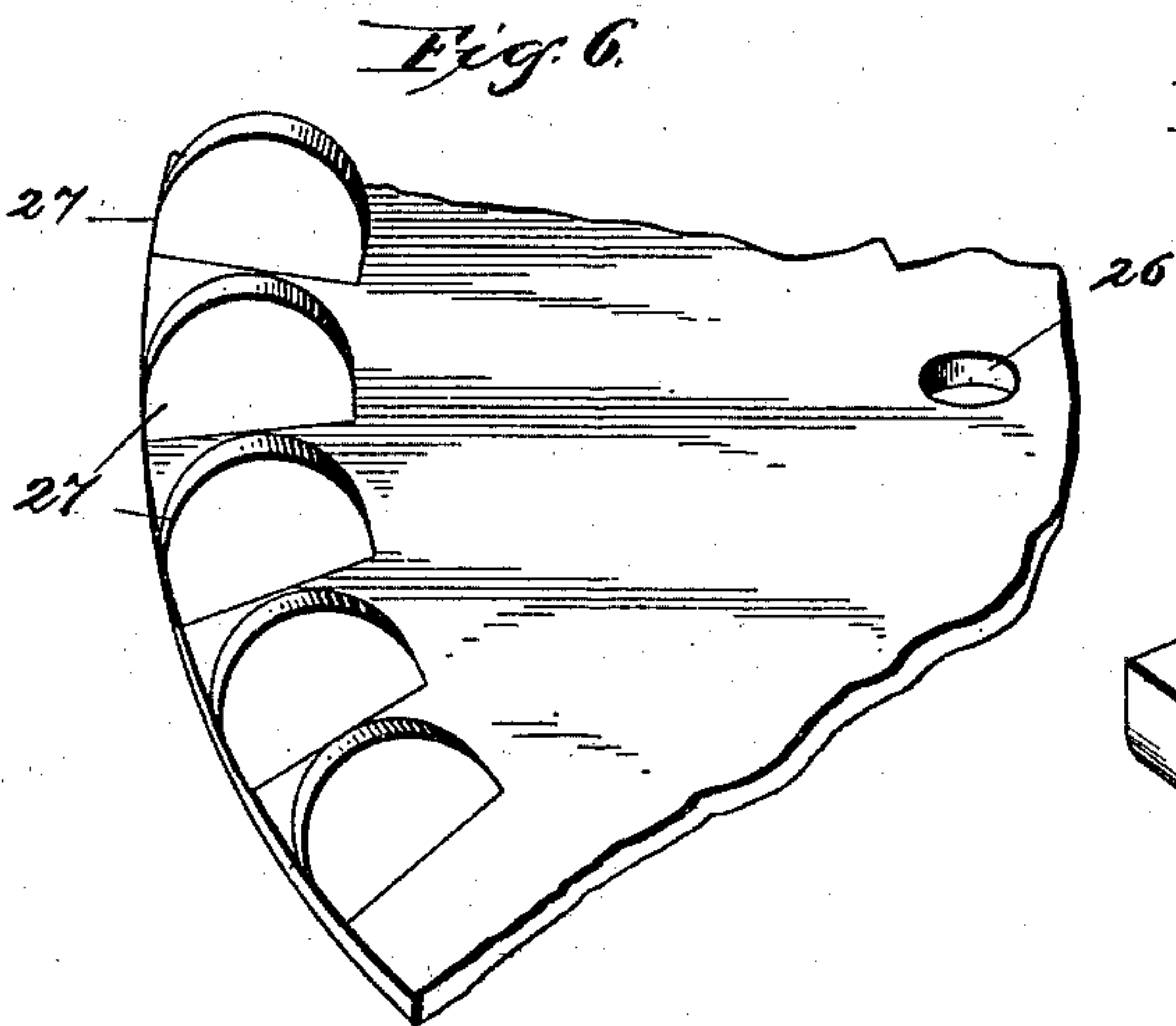
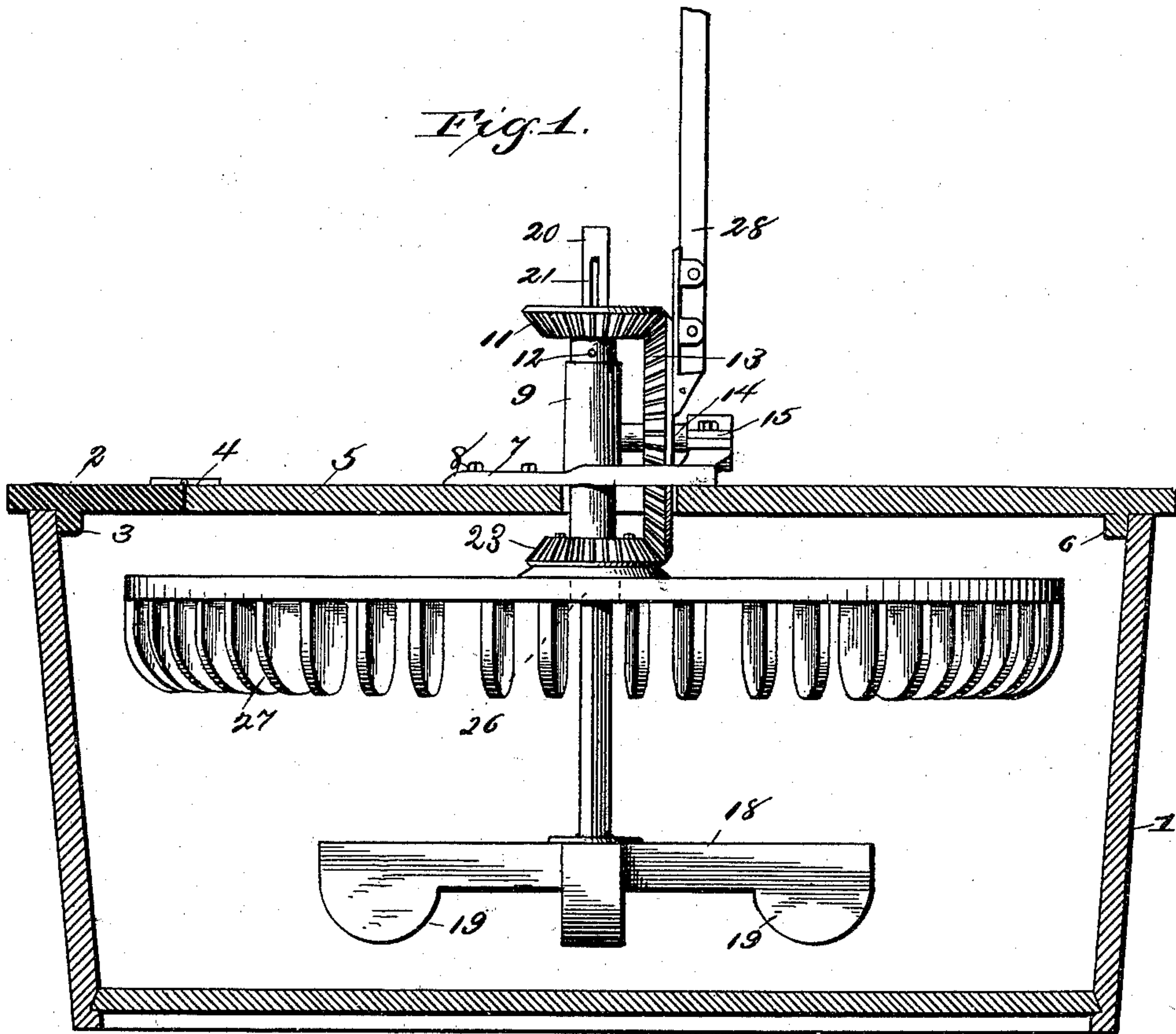
(No Model.)

2 Sheets—Sheet 1.

H. C. & A. G. SCHULTZ.
WASHING MACHINE.

No. 544,996.

Patented Aug. 20, 1895.



Witnesses
E. C. Wardenman
S. J. Williamson

Inventors
Harry C. Schultz, and
Andrew G. Schultz
By *Geo. H. Holgate*
his Attorney

(No Model.)

2 Sheets—Sheet 2.

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Fig. 4

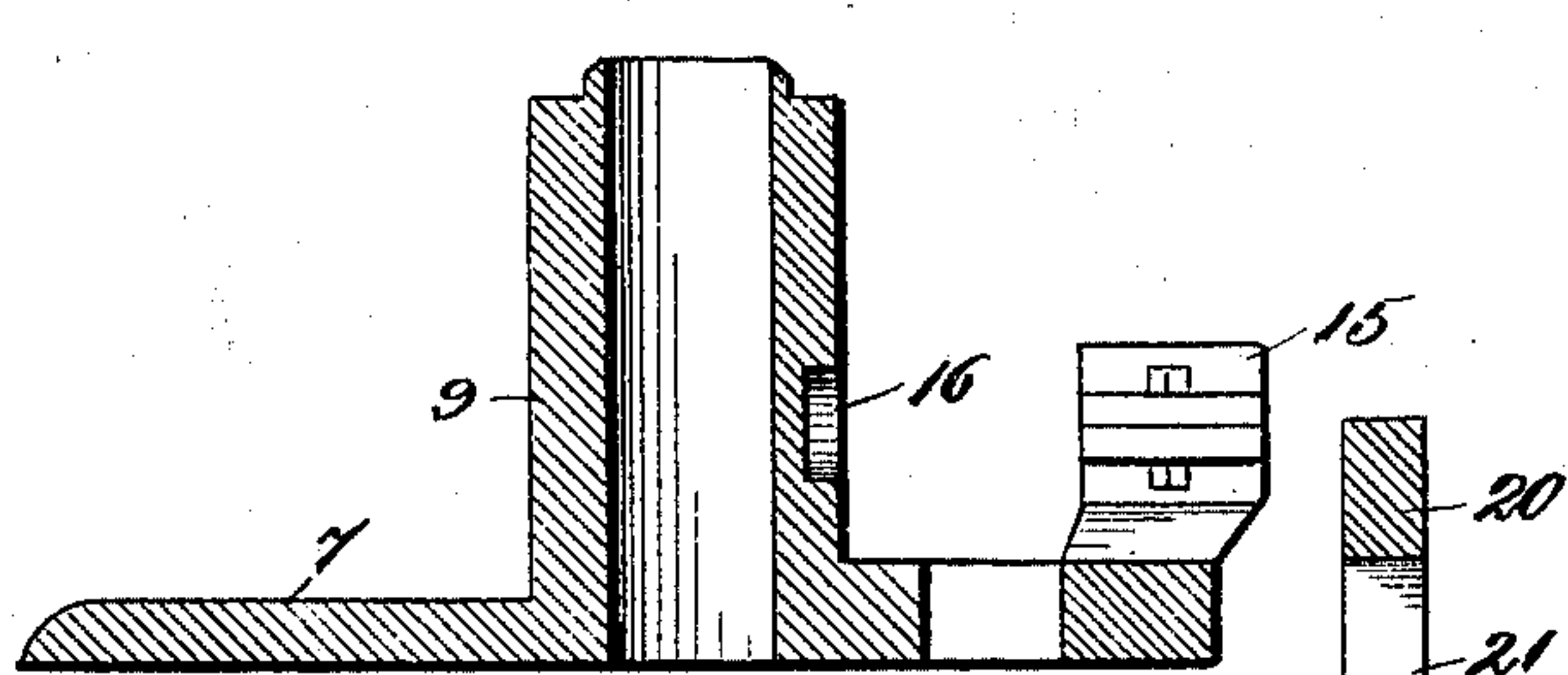


Fig. 5

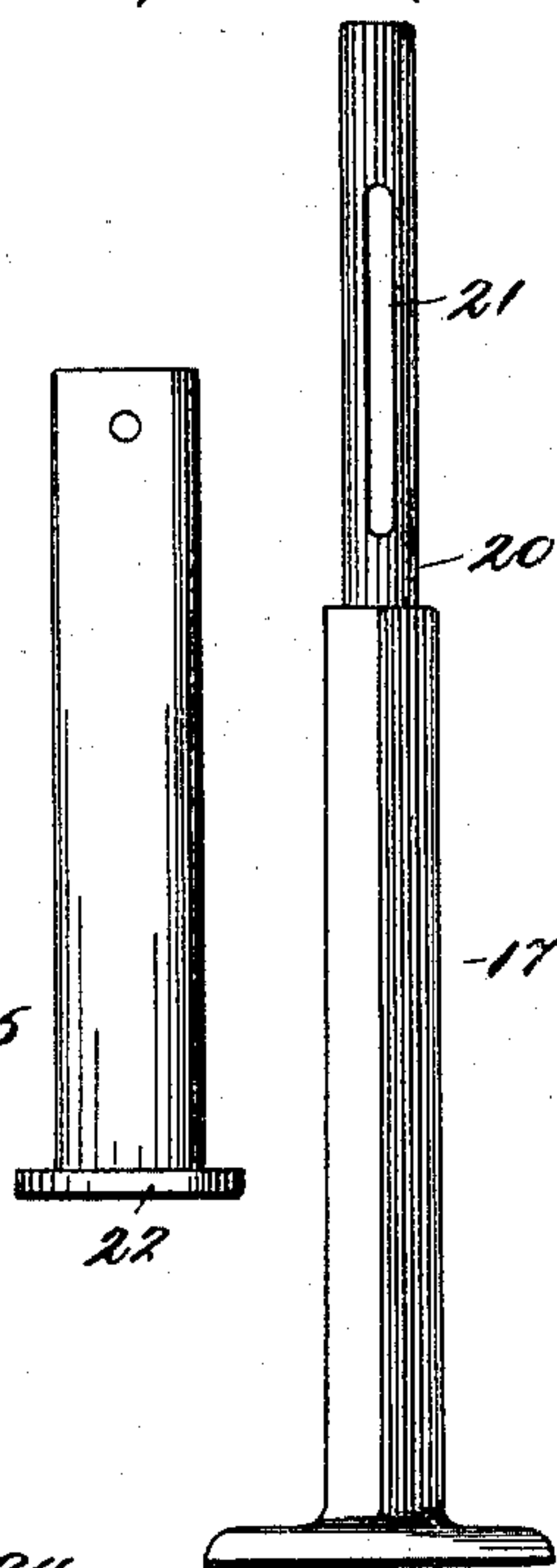


Fig. 2

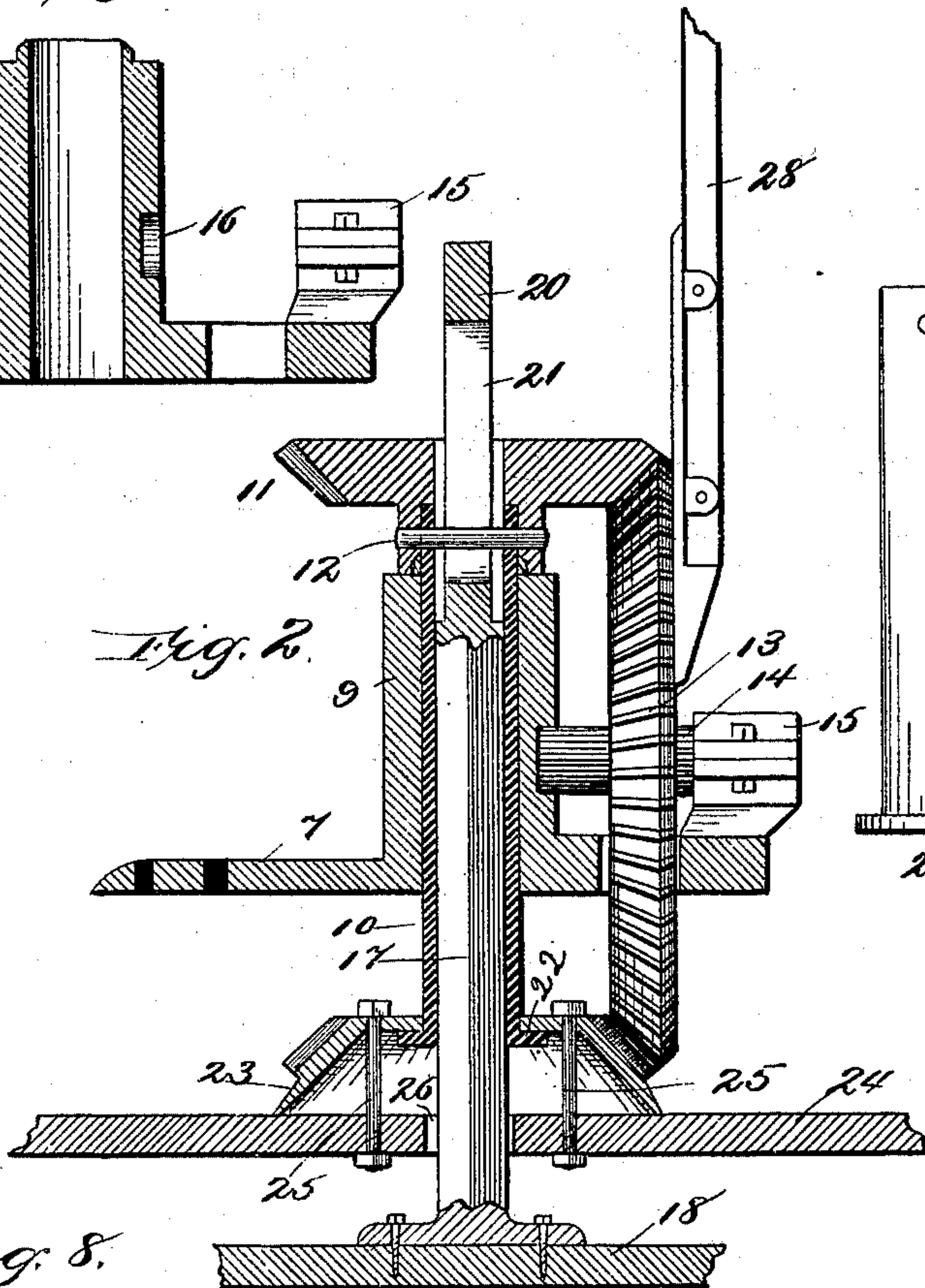
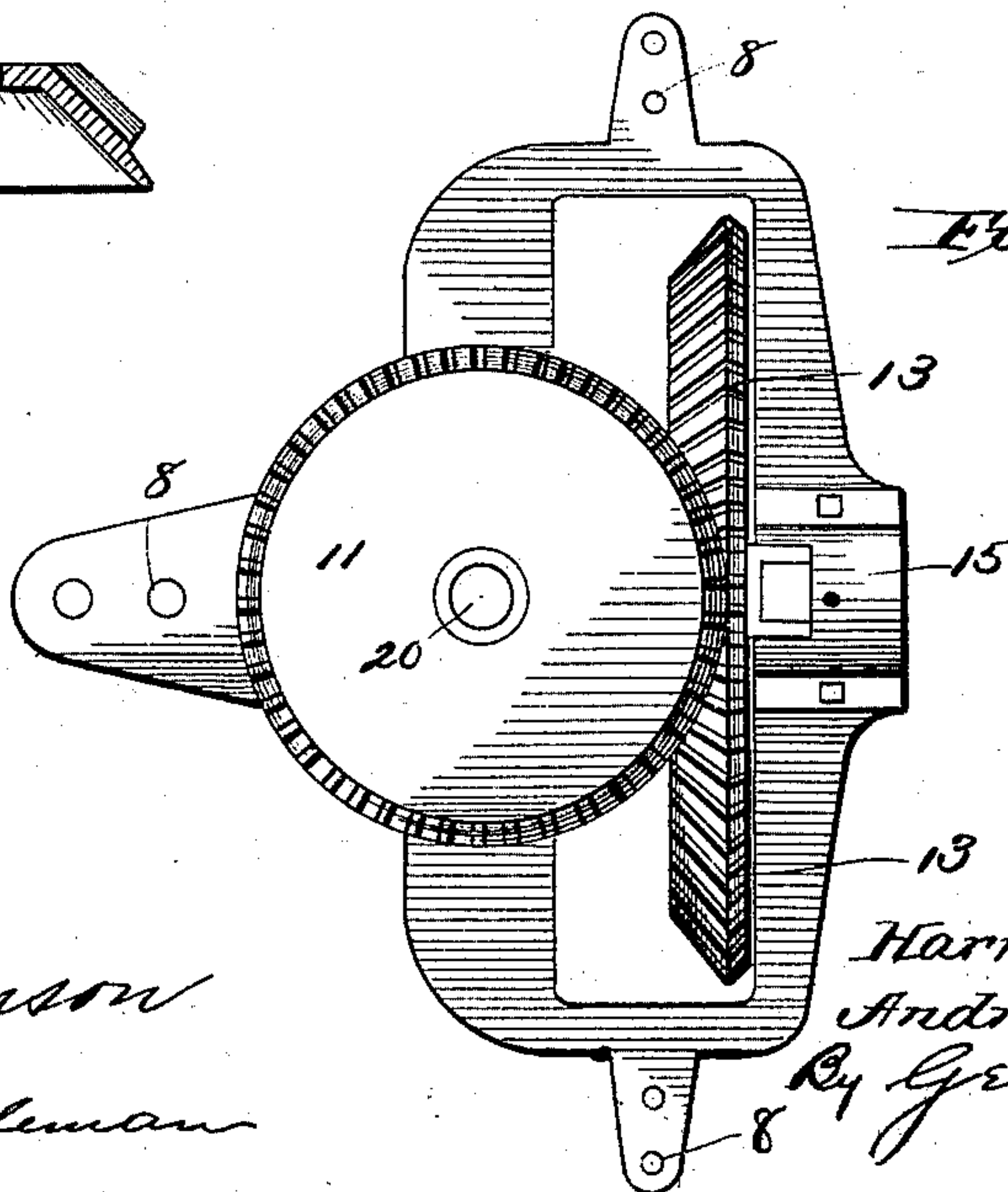


Fig. 8



Fig. 3



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UNITED STATES PATENT OFFICE.

HARRY C. SCHULTZ AND ANDREW G. SCHULTZ, OF PHILADELPHIA, PENNSYLVANIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 544,996, dated August 20, 1895.

Application filed February 26, 1895. Serial No. 539,801. (No model.)

To all whom it may concern:

Be it known that we, HARRY C. SCHULTZ and ANDREW G. SCHULTZ, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania have invented certain new and useful Improvements in Washing-Machines, of which the following is a full, clear, and exact specification.

Our invention relates to a new and useful improvement in washing-machines, and has for its object to provide such a device that shall be simple and durable in construction and positive in action, and which may be applied to ordinary washtubs without alteration of the latter.

With these ends in view our invention consists in certain details of construction and combination of elements, hereinafter set forth, and then designated by the claims.

In order that those skilled in the art to which our invention appertains may fully understand how to make and use the same, we will proceed to describe its construction and operation in detail, referring by figure to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a vertical cross-section of an ordinary tub, showing the operating mechanism of our device in elevation and proper relative position with said tub. Fig. 2 is a sectional elevation of the operating mechanism. Fig. 3 is a plan view of the same. Fig. 4 is a section of the casting in which are formed the bearings. Fig. 5 is a detail view of the members for supporting the upper dasher. Fig. 6 is a perspective of a portion of the upper dasher, and Fig. 7 is a detached perspective of the lower arms.

Similar numbers denote like parts in all the views of the drawings.

1 represents the tub, of ordinary construction and shape, which we provide with a cover 2, having a bead or flange 3, adapting it to fit snugly upon the edge of said tub. To this cover is hinged at 4 a lid 5, which latter also has a flange 6 similar to the flange 3 and for the same purpose.

7 is a casting of suitable shape to support the operating parts of our device and is bolted

at 8 to the lid. Formed with this casting and projecting upward therefrom is a tubular bearing 9, in which is journaled the sleeve 10, so as to freely revolve. To the upper end of this sleeve is rigidly secured a beveled pinion 11 by means of the pin 12 passed through the shank of the latter and the said sleeve.

13 is a beveled gear formed with or secured to a short shaft 14, which latter is journaled in boxing 15 and bearing 16. This gear meshes with the beveled pinion 11 and is adapted to transmit motion thereto.

Through the center of the sleeve 10 is formed an opening, square in cross-section, which receives a spindle 17, and bolted to the lower end of this spindle is a frame 18, composed of cross-bars meeting at their center and forming four or more arms, and at the outer end of each of these arms is an enlargement 19, which, when the machine is in operation, serves as a rubbing or scrubbing point. Formed with the upper end of the spindle 17 is a round extension 20, having a longitudinal slot 21, through which passes the pin 12, so that the spindle may have a free vertical sliding movement within the sleeve 10, and yet receive any rotary motion imparted to said sleeve, for the purpose hereinafter explained.

22 is a flange formed at the lower end of the sleeve 10, and 23 is a beveled pinion having a central opening of sufficient diameter to embrace the said sleeve and permit the pinion 23 to rest upon said flange and freely revolve around the sleeve. This pinion meshes with and receives its motion from the beveled gear 13.

24 is the upper dasher, secured to the under side of the pinion 23 by bolts 25, and having an opening 26 through its center of sufficient diameter to permit the free movement thereof of the spindle 17. Around the periphery of this dasher are arranged radially a number of splashers or paddles 27, which, when in motion, are adapted to agitate the water within the tub and set up currents in said water which will facilitate the cleansing of the clothes.

28 is an operating-handle, of any desired shape, secured to the outer face of the gear-

wheel 13, whereby an oscillating motion may be applied to said wheel.

From the foregoing description the operation of our improvement will be obviously as follows: Clothes having been placed within the tub and the proper amount of water added thereto, the lid and mechanisms carried thereby will be closed down upon the tub and the apparatus put in operation by a brisk oscillation of the handle 28, which will cause beveled pinions 11 and 23 to rotate in opposite directions, and through them this rotary motion will be transmitted to the dasher 24 and rubbing-frame 18, the latter acting directly upon the clothes to thoroughly free them from dirt, and the former so agitating the water as to cause said dirt to be removed from contact with the clothes. As the rubbing-frame and the spindle to which it is attached have a vertical sliding movement, it will readily adapt itself to the position of the clothes within the tub, and more or less pressure may be exerted upon said clothes by adding weight or pressure to the extension 20 of said spindle, thus enabling the operator to adapt the action of the device to fabrics of different texture. This feature is of great importance in a ma-

chine designed for family use, as will be readily understood.

Having fully described our invention, what we claim as new, and desire to obtain by Letters Patent, is—

In a washing machine, the combination of a rubbing frame adapted to revolve to and fro and have a vertical sliding movement, the square spindle supporting and operating said frame, a sleeve in which said spindle has its bearing, a tubular bearing 9, for supporting said sleeve, a beveled pinion 11, meshing with gear 13, and a dasher board 24, pinion 23, bolted thereto and adapted to revolve around the lower end of sleeve 10, and gear 13, with which pinion 23, meshes, and means,—as the handle 28—for imparting the oscillating motion to said gear, all arranged to operate as shown and for the purpose described.

In testimony whereof we have hereunto affixed our signatures in the presence of two subscribing witnesses.

HARRY C. SCHULTZ.

ANDREW G. SCHULTZ.

Witnesses:

RICHARD AYERS,

C. L. EVANS.