

No. 876,163.

PATENTED JAN. 7, 1908.

J. B. FONTAINE.
POLISHING WHEEL.
APPLICATION FILED DEC. 5, 1904.

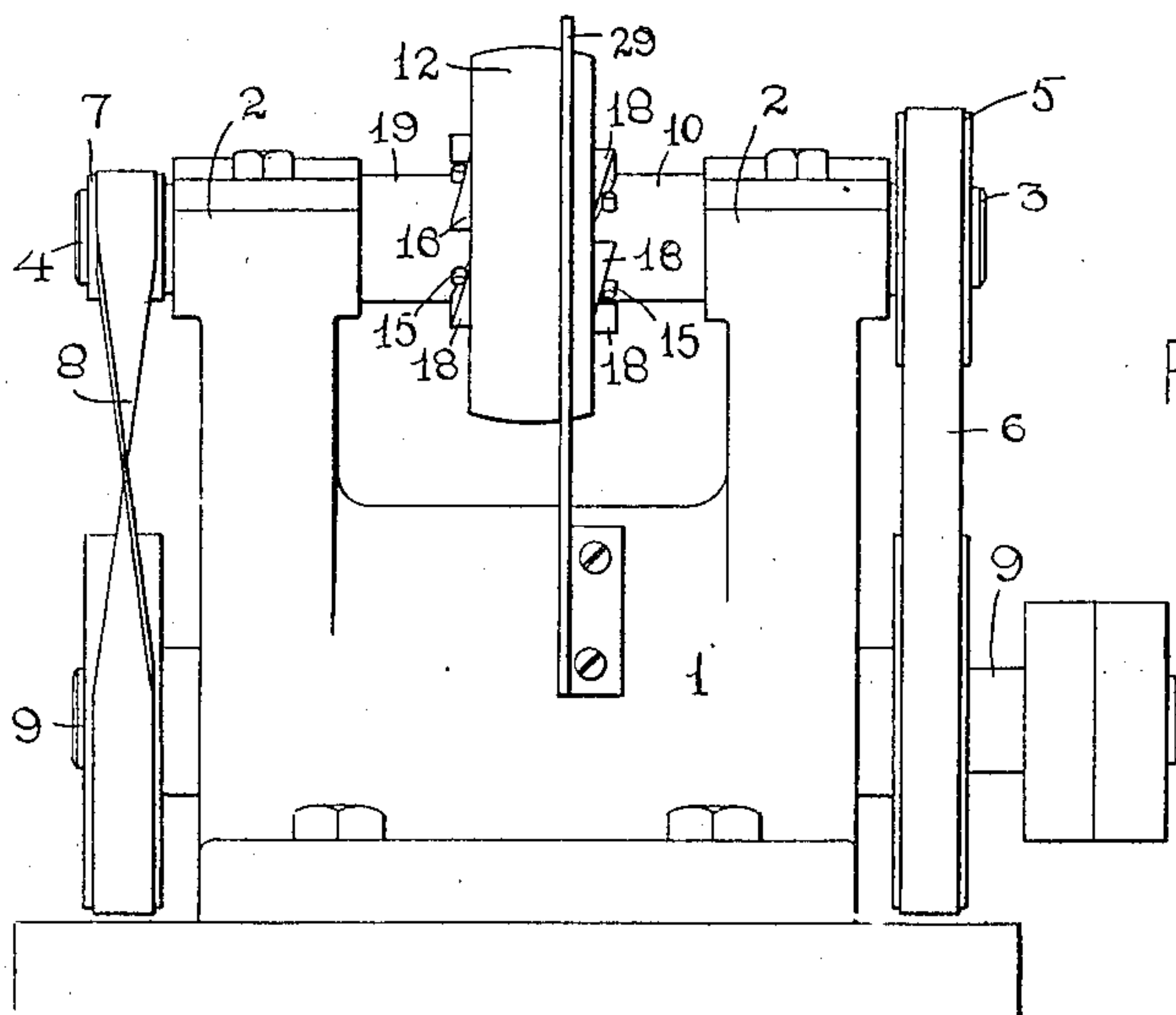


Fig. 1.

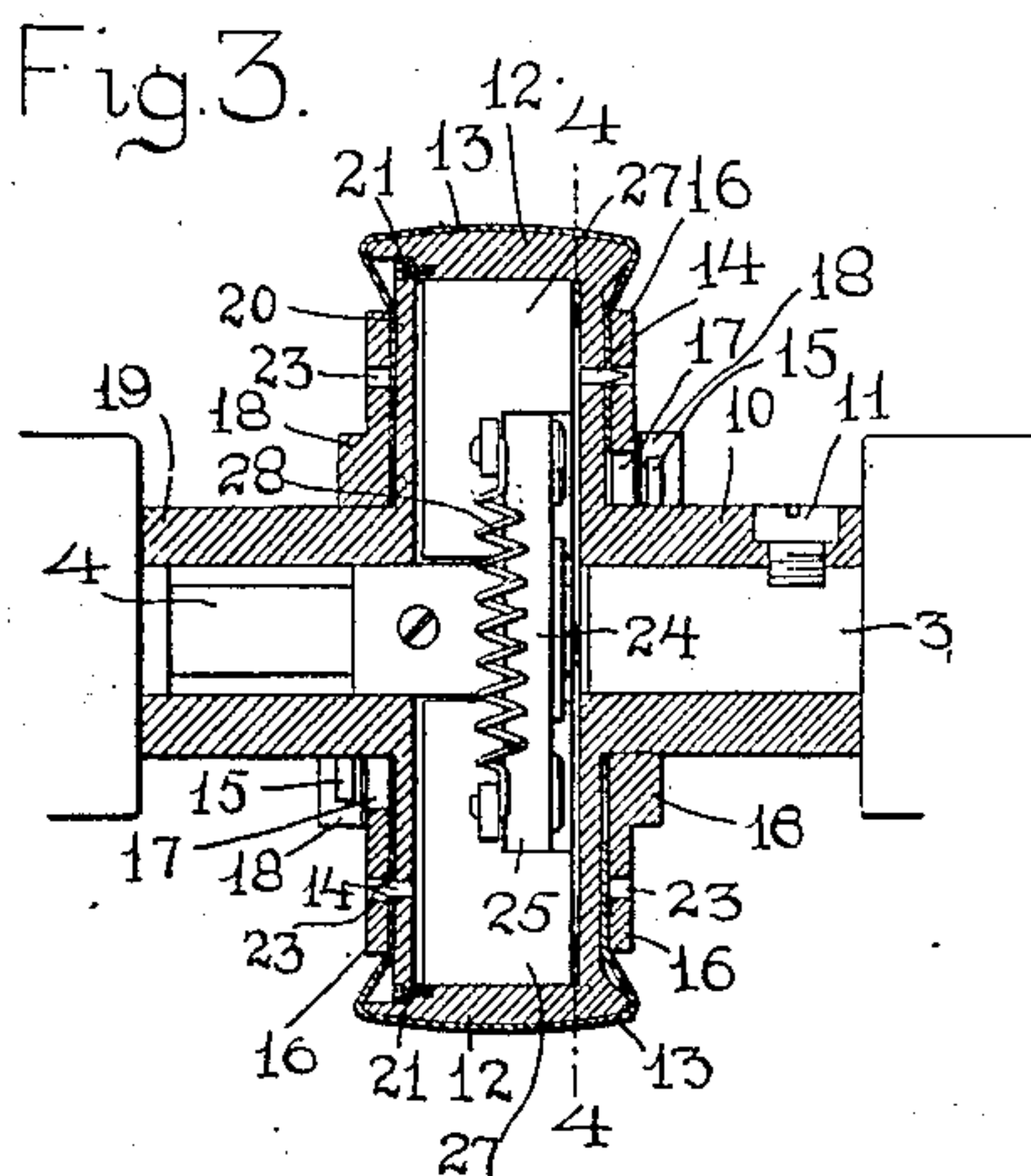


Fig. 3.

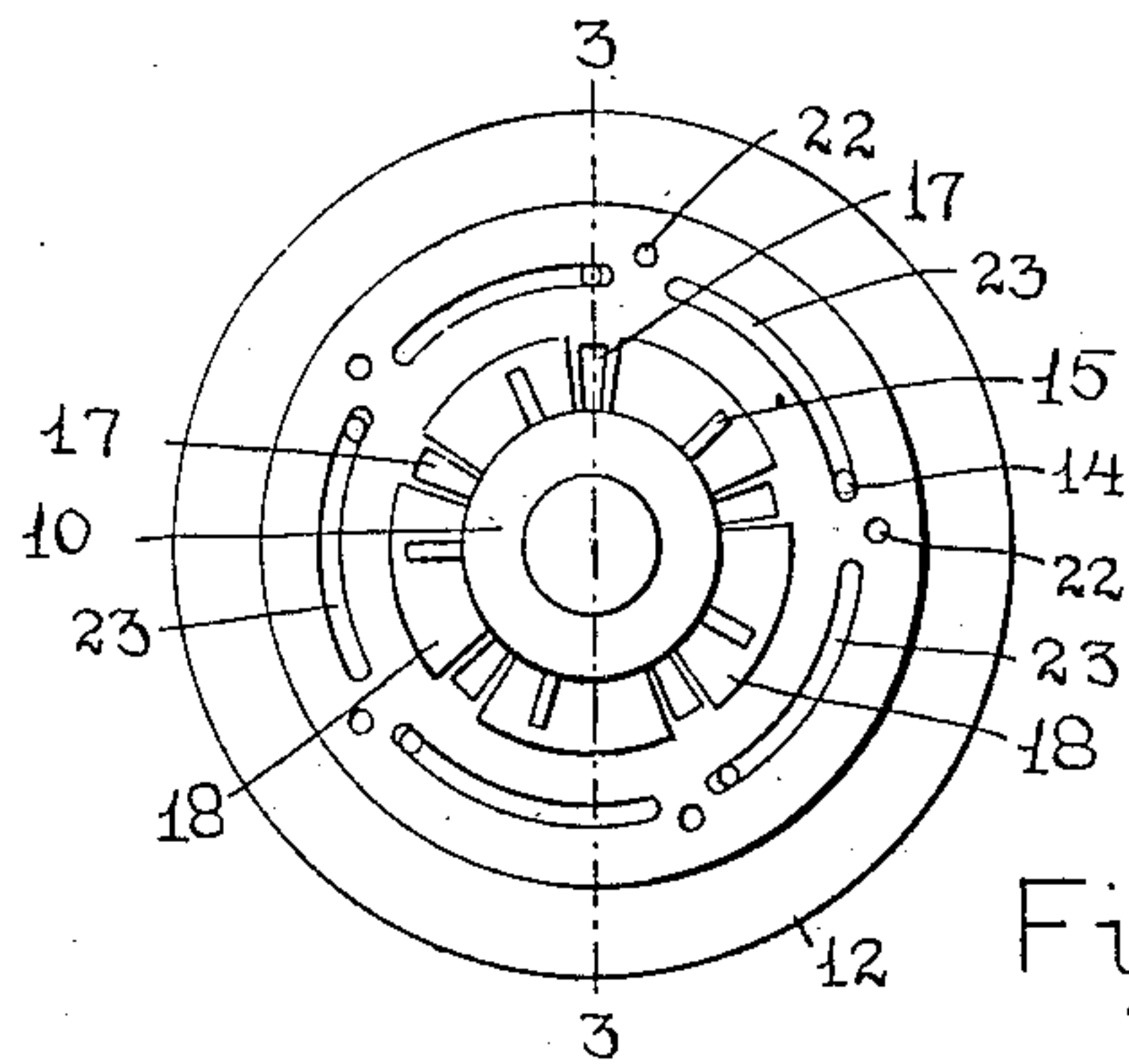


Fig. 2.

Witnesses

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JOHN B. FONTAINE, OF MARLBORO, MASSACHUSETTS, ASSIGNOR TO GEORGE D. BARBER,
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POLISHING-WHEEL.

No. 876,163.

Specification of Letters Patent.

Patented Jan. 7, 1908.

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To all whom it may concern:

Be it known that I, JOHN B. FONTAINE, a citizen of the United States, residing at Marlboro, in the county of Middlesex and Commonwealth of Massachusetts, have invented a new and useful Improvement in a Polishing-Wheel, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figure 1 is a front view of a machine having a polishing wheel embodying my invention. Fig. 2 is a side view of my improved polishing wheel. Fig. 3 is a sectional view on line 3—3, Fig. 2, and Fig. 4 is a sectional view on line 4—4, Fig. 3.

Similar reference letters and figures refer to similar parts in the different views.

My invention relates to a polishing wheel for polishing the heels of boots and shoes and comprises an improved method of attaching the waxed cloth necessary in a polishing wheel, which greatly increases the ease and rapidity of its attachment and removal, and it consists in the mechanism hereinafter described and set forth in the annexed claims.

Referring to the accompanying drawings 1 denotes the frame of the machine, provided with bearings 2, 2, journaled in which are two shafts 3 and 4. The shaft 3 is driven by a pulley 5 and belt 6, and the shaft 4 by a pulley 7 and belt 8. Both belts 6 and 8 are driven by pulleys on the driving shaft 9, but as the belt 8 is a twisted belt the shaft 4 is driven in the opposite direction from the shaft 3 which runs with the shaft 9.

Mounted on the end of the shaft 3 is a hub 10 fastened to the shaft by a set screw 11. Attached to the hub 10 is a polishing wheel 21 of the usual shape.

Upon the outer rim of the wheel 12, shaped to fit the curvature of a boot or shoe heel, the waxed cloth 13 is stretched as is necessary in machines of this class and the method of fastening said waxed cloth upon said polishing wheel is as follows:—Around the wheel at convenient distances from the rim are inserted a number of steel pins 14 sharpened at their outer ends, which I prefer to attach to the wheel by inserting them in the wheel as it is cast. Fastened to the hub 10 at a convenient distance from the wheel 12 and extending in a row around it are a number of cylindrical pins 15, the use of which will be shown later.

Sliding on the hub 10 is a washer 16 pro-

vided with slots 17 corresponding to the pins 15, so that the washer 16 placed in the proper position may be slid over the pins 15 and into contact with the wheel 12. The washer 16 is provided with wedge or cam shaped blocks 18 so arranged around the washer 16 that after it has been brought into contact with the wheel 12, by a partial revolution of the washer, the cam blocks 18 are forced against the pins and the washer 16 crowded tightly against the wheel 12. Upon the opposite side of the wheel 12 is a hub 19 inclosing the shaft 4 and having a plate 20 which is attached at its periphery to the wheel 12 by screws 21. To this plate 20 are attached similar steel pins 14, mounted upon the hubs 19 are pins 15, and sliding upon it is a washer 16 with openings 17 and cam blocks 18 similar to the hub 10. The cam blocks, however, upon the hubs 10 and 19 are reversed in position so that revolution in the opposite direction is necessary to tighten the washers upon the two sides. This is accomplished by inserting spanners in the holes 22 in the washers 16. The pins 14 enter slots 23 in the washer 16 so that the washers may be revolved when in position in contact with the wheel 12.

The periphery of the wheel 12 overhangs as shown in Fig. 3, thereby making an angle across which the waxed cloth 13 is stretched when it is attached to the pins 14. The washers 16 extend beyond the pins 14 approximately half way towards the overhanging periphery, so that when the washers 16 are crowded against the wheel 12 an additional strain is imparted to the waxed cloth 13 which is thereby tightly drawn over the periphery of the wheel 12.

In fastening the waxed cloth 13 to the wheel 12 the cloth is first drawn over the rim of the wheel and attached to the pins 14. The washers 16 which are at the outer ends of the hubs 10 and 19 while the cloth is being placed in position, are then slid over the pins 15 into contact with the wheel. Spanners are then inserted in the holes 22 in both washers which are turned a partial revolution, thus wedging the cam shaped blocks 18 between the wheel 12 and the pins 15 and firmly crowding the washers against the wheel.

The washers 16 extend a sufficient distance beyond the pins 14 towards the overhanging periphery of the wheel 12 to com-

press against the side of the wheel 12 a portion of the cloth 13 extending from the overhanging periphery to the pins 14, thereby increasing the strain on the cloth 13 and drawing it tightly over the periphery of the wheel 12. To remove the waxed cloth the operation is reversed and the washers slid away from the wheel.

What I claim as my invention and desire to secure by Letters Patent is:—

1. The combination of a rotating polishing wheel provided with a rigid periphery overhanging to form recessed sides, of a series of pins projecting from the opposite sides of said wheel within said overhanging periphery and adapted to engage a cloth enveloping said periphery, and means for pressing said cloth against the wheel between said pins and said rigid periphery, whereby the cloth is stretched over said periphery.

2. The combination of a polishing wheel having a rigid periphery and recessed sides, of a series of pins projecting from the opposite side of said wheel within said recessed sides and adapted to engage a cloth enveloping said periphery, a washer on each side of the wheel, having its circumference extending beyond said pins but within said recessed side, and means for pressing said washers against said wheel, whereby the cloth is stretched over said rigid periphery.

3. The combination of a polishing wheel and polishing cloth to be applied to its rim, of sharpened pins attached to said wheel by

which said cloth is temporarily fastened to said wheel, cylindrical pins attached to the hubs of said wheel, annular washers sliding upon said hubs and cam shaped blocks on said washers by which they are held tightly between said cylindrical pins and said wheel, and in contact with said cloth.

4. The combination of a polishing wheel having an overhanging periphery forming recessed sides, of a series of pins projecting from the opposite sides of said wheel between said overhanging periphery and the center of the wheel and adapted to engage a cloth enveloping said periphery, an annular washer on each side of the wheel, means for pressing said washers tightly against said wheel, said washers being provided with concentric slots to receive the ends of said pins and allow the rotation of said washers.

5. The combination of a polishing wheel and polishing cloth to be applied to its rim, of a series of pins projecting from the opposite sides of said wheel adapted to engage said cloth, an annular washer on each side of the wheel, means for pressing said washers tightly against said wheel, said washers being provided with concentric slots to receive the ends of said pins and allow the rotation of said washers.

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Witnesses:

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