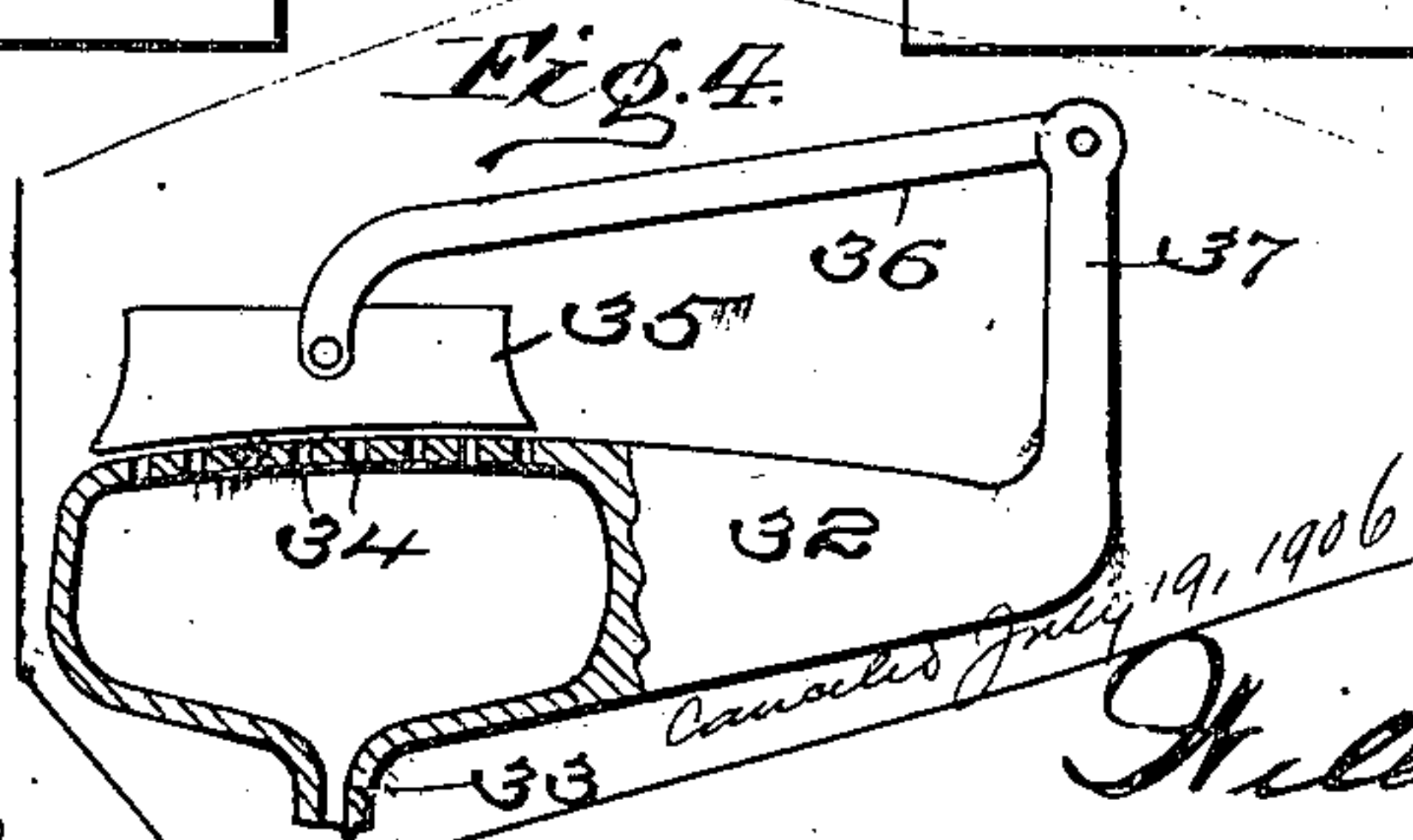
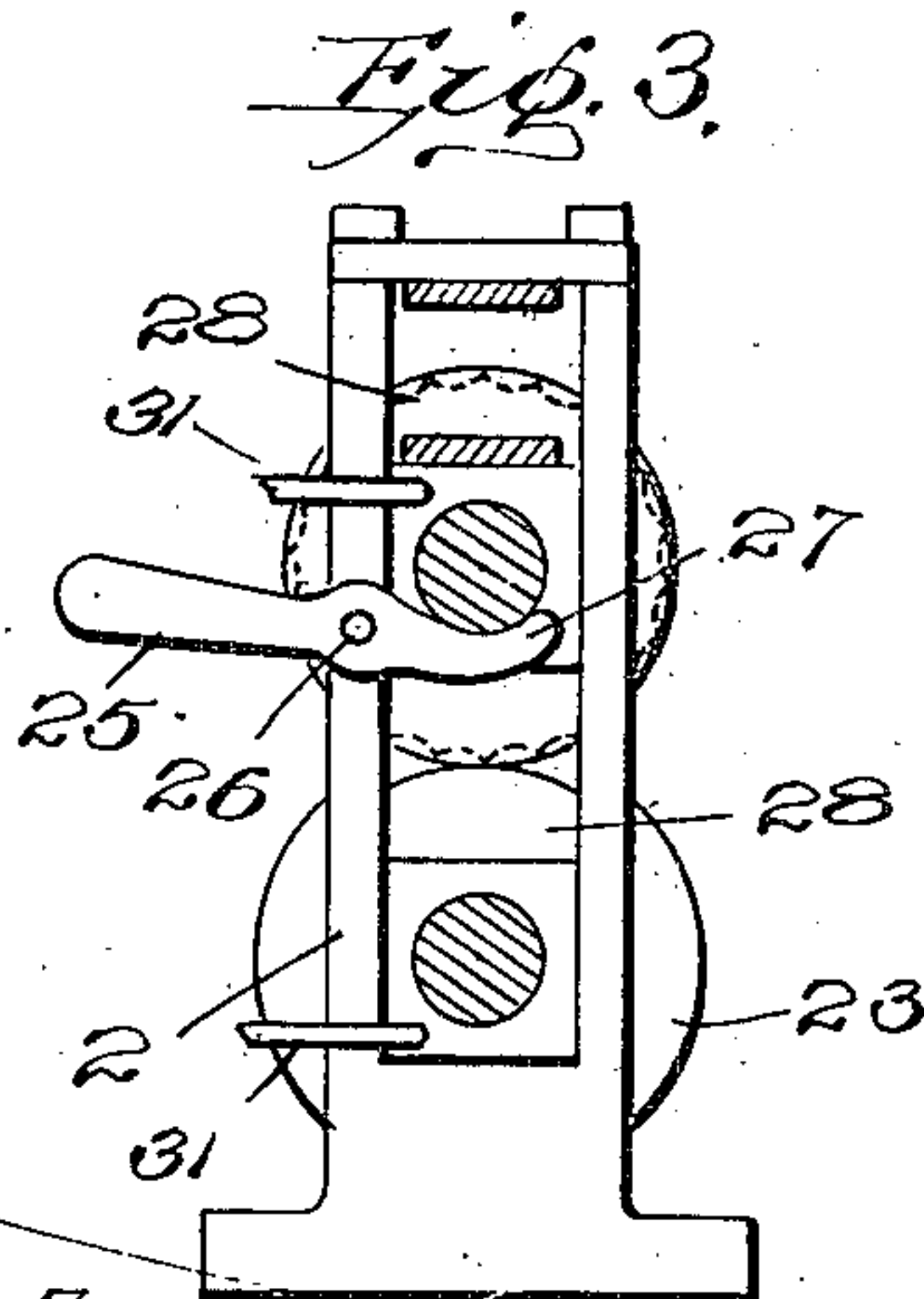
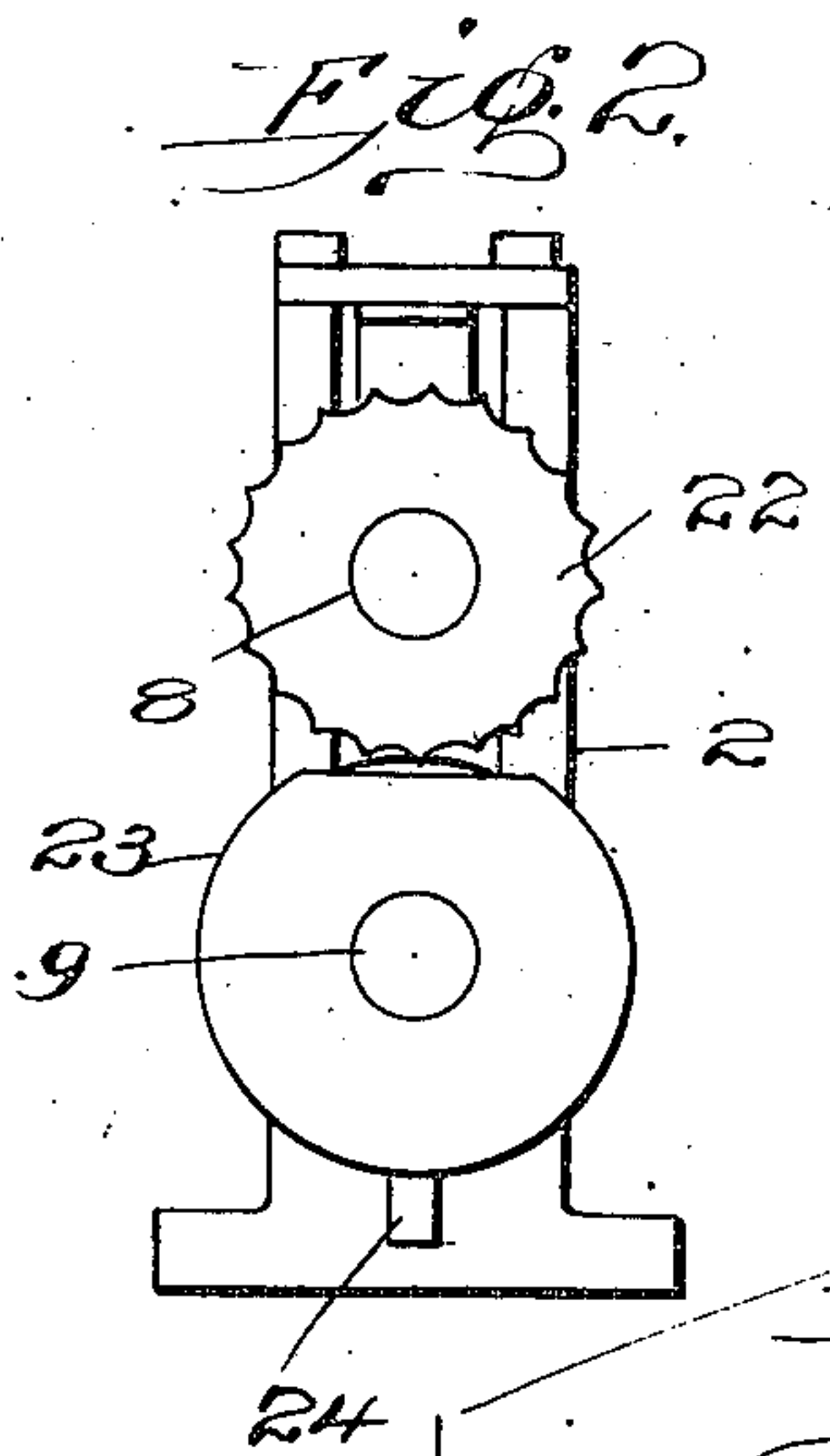
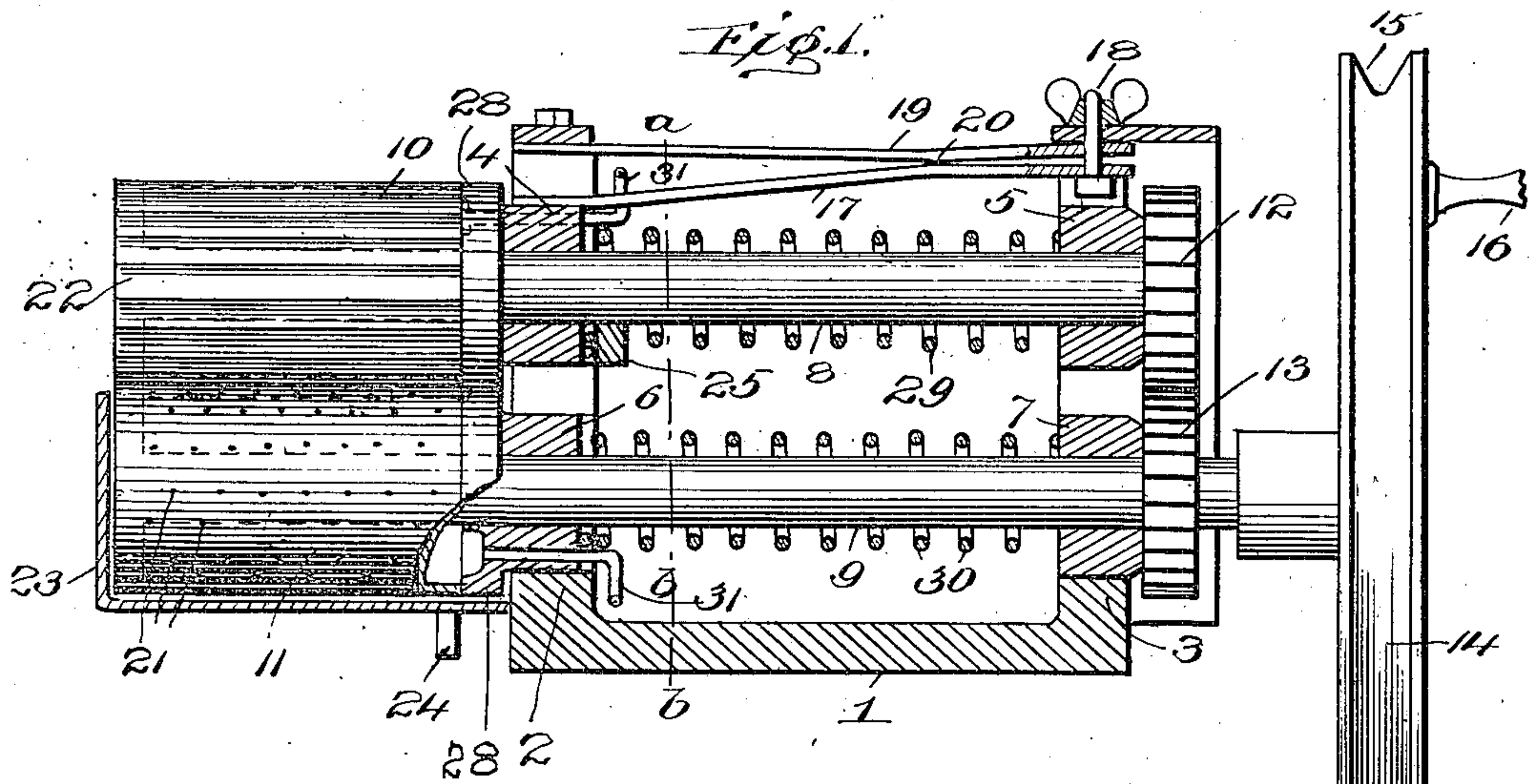


No. 837,116.

PATENTED NOV. 27, 1906.

W. POOL.  
PRESSING MACHINE.  
APPLICATION FILED MAY 13, 1905.



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM POOL, OF LANSDALE, PENNSYLVANIA.

## PRESSING-MACHINE.

No. 837,116.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed May 13, 1905. Serial No. 260,295.

*To all whom it may concern:*

Be it known that I, WILLIAM POOL, a citizen of the United States, residing at Lansdale, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Pressing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in mechanism for pressing cloth or other materials, and is especially adapted for pressing articles, particularly of clothing, where it is desirable to moisten and at the same time heat the same.

It is the object of the invention to provide a mechanism in which the hems or folds of fabrics may be pressed and secured in position by having cement, gutta-percha, or the like placed within the fold and heated and moistened at the time it is being pressed.

The invention comprises certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a longitudinal sectional view through my improved pressing apparatus, the pressing-rolls being shown in elevation. Fig. 2 is an end elevation of the mechanism looking at the ends of the pressing-rolls. Fig. 3 is a transverse sectional view taken upon the line *a b* of Fig. 1.

The mechanism contemplated by the present invention is capable of use in pressing or folding fabrics or goods of any sort, but is especially well adapted for use in the pressing of seams or folds in which a cement or adhesive material is used for holding the fold in place.

The apparatus illustrated in the drawings is particularly adapted for the pressing and cementing of the hems of trousers where gutta-percha or cement of any suitable kind is placed within the hem so as to hold the same permanently in place.

Referring to the drawings, in which is shown a preferable form of the device, 1 indicates a frame. The frame 1 is provided with uprights or standards 2 and 3, in which movable bearings 4, 5, 6, and 7 are mounted. Journalled in these bearings are shafts 8 and 9, which at one end of the framing project beyond the same and carry pressing-rolls 10 and

11. To the opposite ends of the shafts 9 and 10 from the pressing-rolls are secured gears 12 and 13, which are intermeshing, so that when one shaft is rotated the other will turn also and in the opposite direction. To one of the shafts, as 9, is secured a power or driving wheel 14, which may be grooved, as at 15, to receive belting from any suitable source of motion, or said wheel may be turned by hand, a handle 16 being provided therefor. The rolls 10 and 11 are held together under a yielding pressure by means of a spring 17, which is so mounted in the framing as to bear at one end upon the upper journal-box 4, while the other end is engaged by a screw or bolt 18. The spring bar or plate 17 is pressed against an adjacent bar or plate 19, which may also have a spring action, if desired. The bars 17 and 19 are so bent that they have a rocking engagement with one another, normally contacting at only one point, as at 20. By pulling upwardly upon the end of the bar 17 through the agency of the screw or bolt 18 the free end of the spring-bar 17 will be forced downwardly against the bearing 4.

It is of importance in the present invention that the pressing-rolls shall be capable of applying heat and moisture to the materials operated upon simultaneously with the pressing operation. For this purpose the rolls are so constructed that a heating and dampening agent, such as steam, may be introduced into the interior of the said rolls, and some of the said steam may escape through the periphery of one or both of the rolls for dampening the fabrics passed between them. As will be evident from the drawings the bearings 4 and 6 carry upon one side of the standard 2 heads 28, which are made approximately of the size of the ends of the rolls and fit closely against the end edges of the said rolls, as shown in Fig. 1. Of course the heads 28 remain stationary with the bearings. A ground joint is formed between the ends of the rolls and the said heads, so that while the rolls move with respect to the heads any heating or moistening agent which is introduced into the rolls will not be permitted to escape between the edges of the rolls and the heads. The heads are normally forced against the inner open ends of the rolls 10 and 11 by means of springs 29 and 30, which surround the shafts 8 and 9 and bear against the inner ends of the bearings 4 and 6. The other ends of said springs abut against the bearings 5



and 7. The bearings 4 and 6 with their heads 28 are thus forced against the ends of the rolls 10 and 11 under a yielding tension. I may introduce steam or other heating and moistening agent into either one or both of the said rolls 10 and 11; but it is usually sufficient to perforate the periphery of only one of the rolls, as at 21, for permitting the steam to escape into the fabric operated upon, and thus accomplish the moistening of the same. It will be observed that the rolls 10 and 11 are secured at their outer ends to the ends of the shafts 8 and 9. These shafts extend through the bearings 4 and 6 and the heads 28 and longitudinally of the hollow rolls to the end heads or closing walls of said rolls 10 and 11. An annular space is thus left between each of the shafts 8 and 9 and the inner surfaces of the hollow rolls 10 and 11. The steam or other heating or moistening agent may be introduced into the rolls in any desired manner; but I preferably introduce the same into the rolls through pipes, as 31, which extend into passages formed in the bearings 4 and 6. The said passages deliver the steam into the interior of the rolls 10 and 11. The working joint formed between the said rolls and the heads 28 will operate to form a tight working joint between the parts. In order to facilitate the feeding of the materials operated upon between the rolls, I generally corrugate one of the same, and have shown in the drawings the upper roll 10 as having a series of concaved longitudinally - extending depressions or corrugations 22. These corrugations engage the goods which is being pressed and as the roll 10 turns prevents the same from slipping and insures its being properly fed forward. The lower roll is inclosed in a casing 23, which almost incloses the roll. The said casing 23 collects all water or condensation from the steam and is provided with an outlet-pipe 24 for the draining of the moisture thus collected.

When the hem of a pair of trousers is to be secured, the fabric or goods forming the trousers are folded and a strip of gutta-percha or other cementing material is laid within the fold, and the hem thus formed is then passed between the rolls 10 and 11. The steam admitted into the roll 11 will force its way out through the apertures 21 and moisten as well as heat the fabric and the gutta-percha or cement within the hem, and the compressing action of the rolls will operate to cause the parts to firmly adhere. In this simple manner the hems of trousers may be quickly and readily secured. The device can of course be used for securing hems or folds of fabrics of various kinds in garments or any other articles made of fabric or like material, all within the spirit of the present invention.

In order to facilitate the insertion of a hem

between the rolls 10 and 11, the upper roll may be raised by means of a lever 25, which is pivoted, as at 26, to the standard 2 and bears with its inner end 27 against the under side of the shaft 8. By pressing upon the outer end of the lever 25 the shaft may be raised at any time against the action of the spring 17 for separating the rolls temporarily.

The device is simple in structure and makes it possible to accomplish the heating, moistening, and pressing of hemmed or folded goods or fabrics at a single operation.

Any changes in the minor details of construction are considered as entirely within the scope of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A pressing device, comprising a frame, shafts extending approximately parallel in said frame, pressure-rolls carried by the ends of said shafts, bearing-blocks mounted in the frame adjacent to said rolls, heads carried by said bearing-blocks and capable of closing the open ends of the pressure-rolls and means for introducing steam into said rolls.

2. A pressing device, comprising a frame, parallel shafts mounted therein, hollow rolls secured to the ends of said shafts, journal-blocks offering bearings for the said shafts adjacent to the rolls, integral heads carried by the said journal-blocks for closing the open ends of the rolls, spring pressing means engaging one of the journal-blocks for forcing it toward the other journal-block and springs engaging the sides of the journal-blocks for forcing the heads carried thereby against the hollow rolls.

3. A pressing mechanism, comprising hollow rolls, one of said rolls having perforations extending through the periphery thereof, the said rolls being open at the inner ends, shafts extending through the rolls and rigidly engaging the closed ends thereof for carrying them and movable heads mounted upon said shafts and means for forcing them against the open ends of the rolls for retaining a heating and moistening medium within the rolls.

4. A pressing mechanism, comprising a pair of hollow rolls, shafts carrying the said rolls, bearings for supporting the shafts and arranged adjacent to the ends of the rolls, heads for the rolls carried by the said bearings, springs abutting against the bearings for forcing the heads normally against the rolls and forming a tight joint therewith and means for introducing steam into the said rolls.

5. A pressing mechanism, comprising a framing having standards rising therefrom, shafts mounted in the standards, bearings in the said standards and carrying the said shafts, gearing for actuating the shafts, hollow rolls mounted upon the shafts, heads



carried by one set of bearings for closing the ends of the rolls, springs surrounding the shafts and interposed between the two sets of bearings of the shafts for forcing the heads 5 against the rolls, and piping for leading steam through the said heads and delivering the same within the rolls.

6. In a mechanism of the class described, the combination with a frame, bearings carried by said frame, a shaft journaled in said bearings, rolls supported upon said frame, one of said rolls fixedly secured to said shaft, a bar bent intermediate its ends and fixedly secured at one end to said frame and its opposite end being left free, a bar bent intermediate its ends and fixedly secured to one of said bearings, and means engaging the opposite end of said last-mentioned bar and capable of clamping the outer, free ends of said 20 bars.

7. In a mechanism of the class described, the combination with a frame, of shafts journaled upon said frame and extending beyond one end thereof, rolls carried by the extended 25 ends of said shafts outside of said frame, each roll provided with an open end, slidable means carried by said shafts for closing said open ends, and yielding means for exerting

pressure upon said slidable means for holding the same in its normal position. 30

8. In a mechanism of the class described, the combination of a frame provided with vertical standards, rolls supported by and carried outside the frame and each provided with an inner open end, longitudinally-movable apertured heads closing the open end of each roll, means to permit the introduction of steam into the rolls through said heads, yielding means for normally exercising pressure upon said heads for securing the same in 35 their normal position, and resilient bars carried by said frame and operating with said rolls for holding the same in engagement.

9. In a mechanism of the class described, the combination with a frame, of longitudinally-extending shafts carried by said frame, rolls fixed to said shafts outside of said frame, each roll provided with an open, inner end, spring-pressed means closing the inner ends of said rolls, and gearing for said shafts. 40 50

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

WILLIAM POOL.

Witnesses:

HARRY S. MILLER,  
CHAS. H. MILLER.