

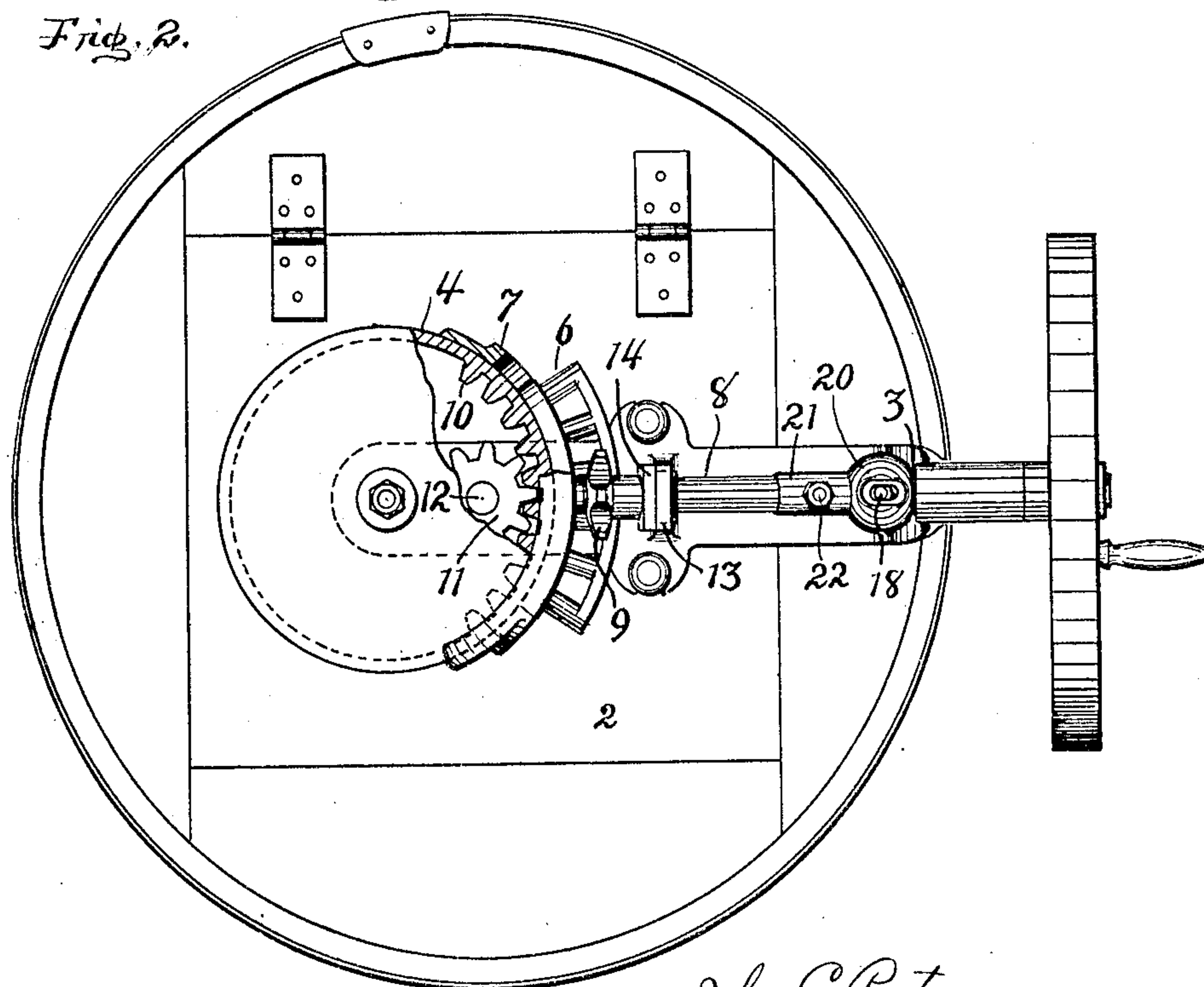
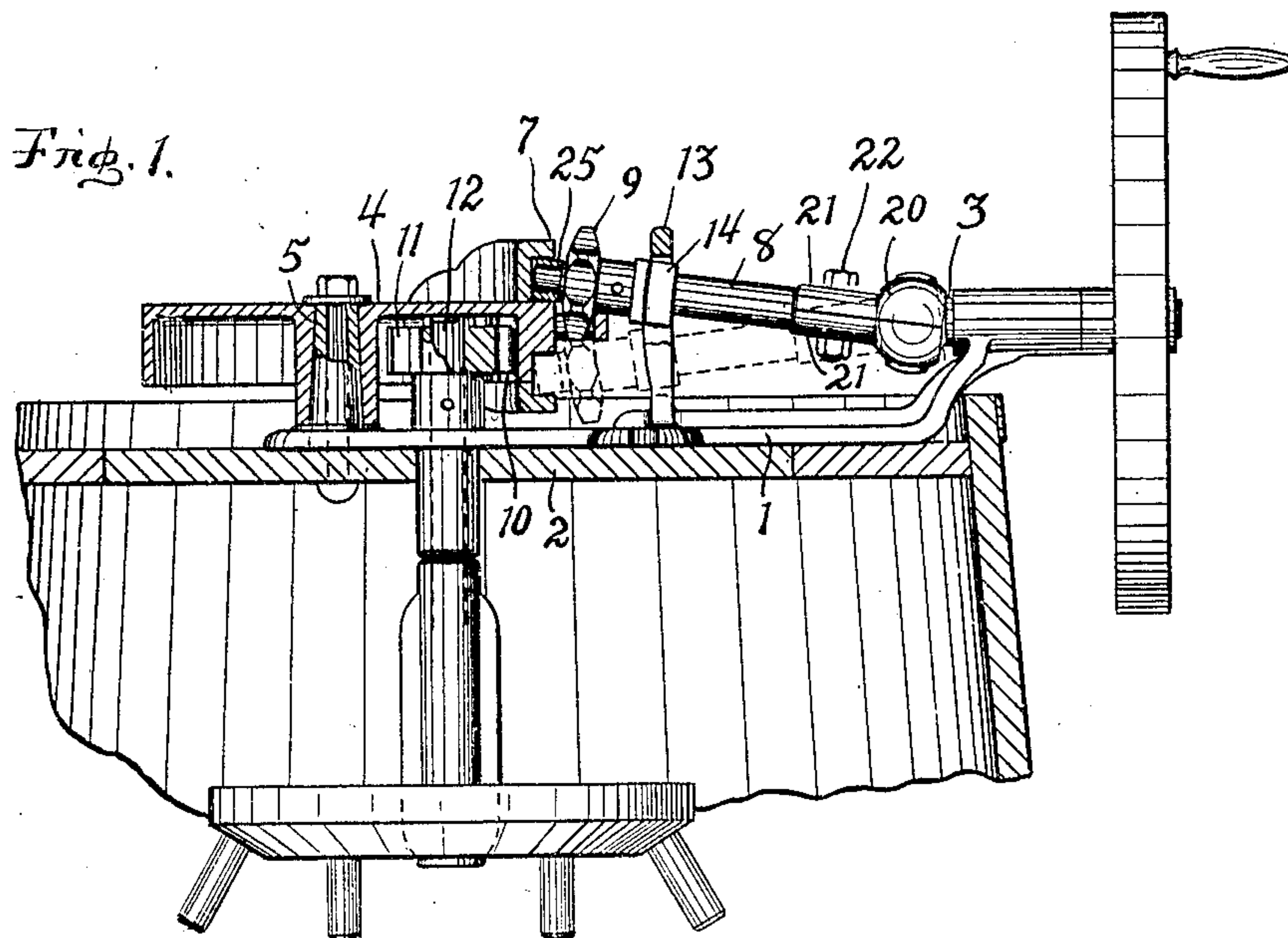
No. 875,732.

PATENTED JAN. 7, 1908.

J. C. PETERS.  
DRIVING MECHANISM FOR WASHING MACHINES.

APPLICATION FILED APR. 19, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

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Fig. 3.

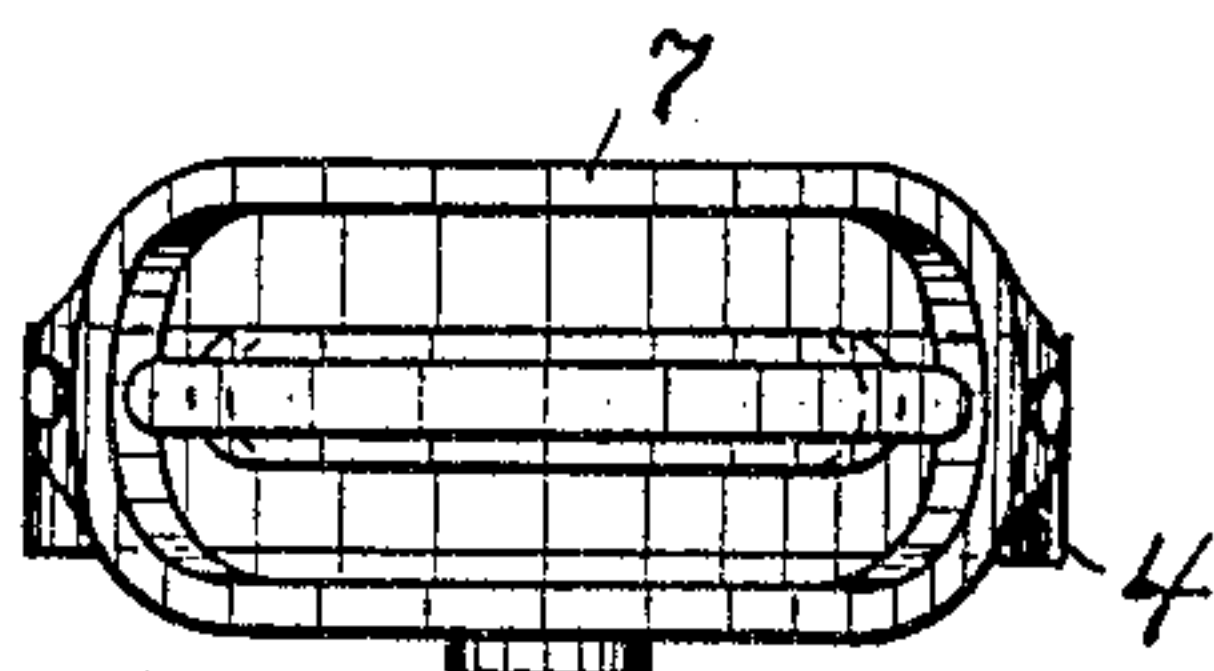


Fig. 4.

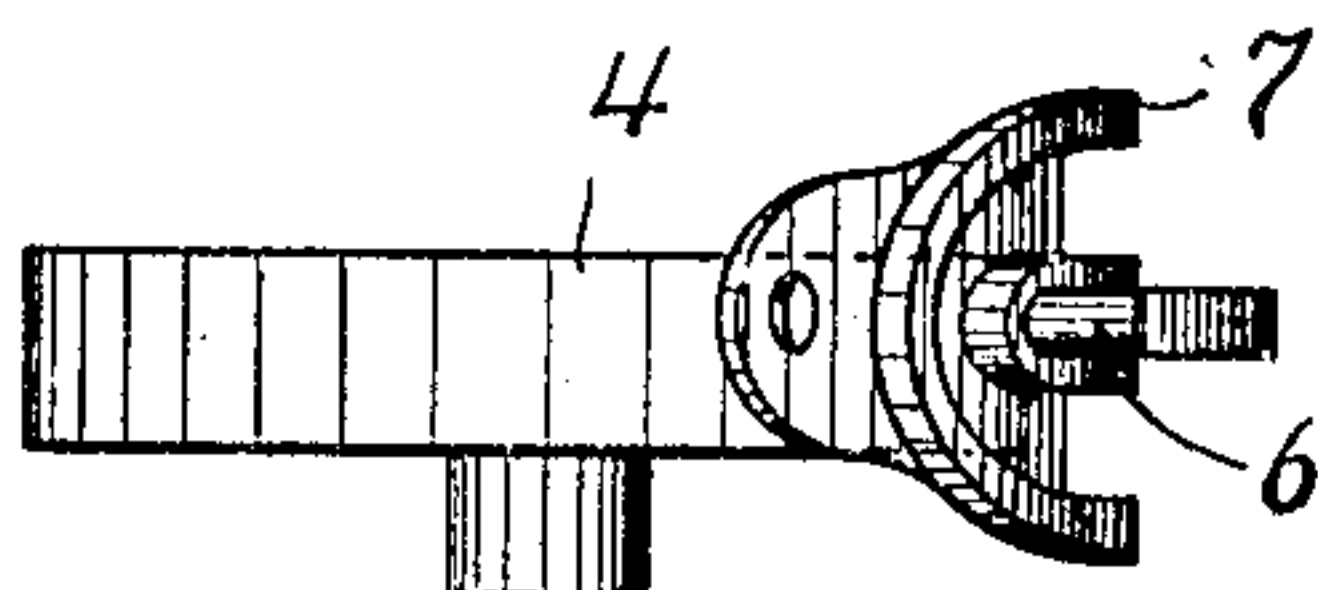


Fig. 8.

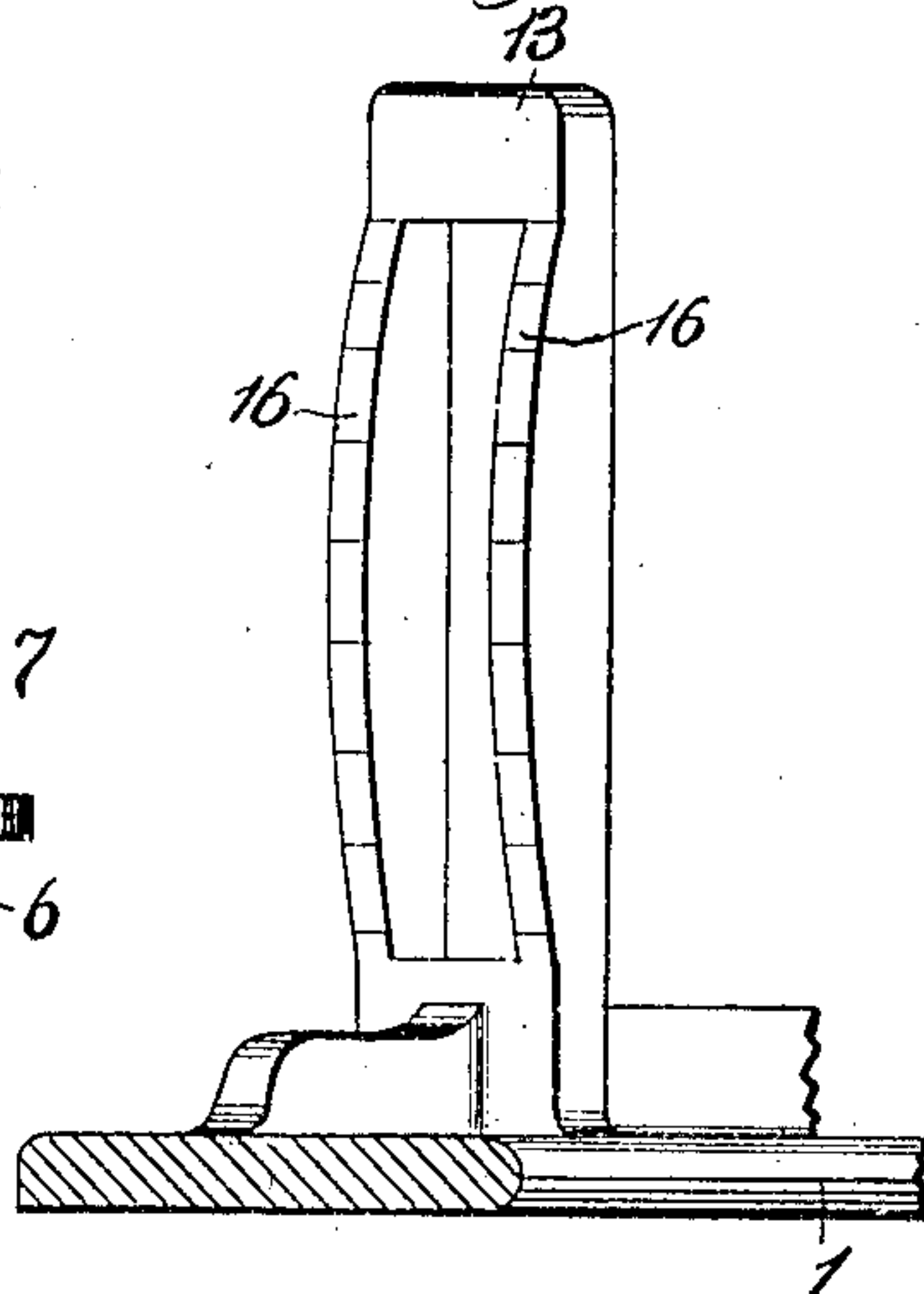


Fig. 5.

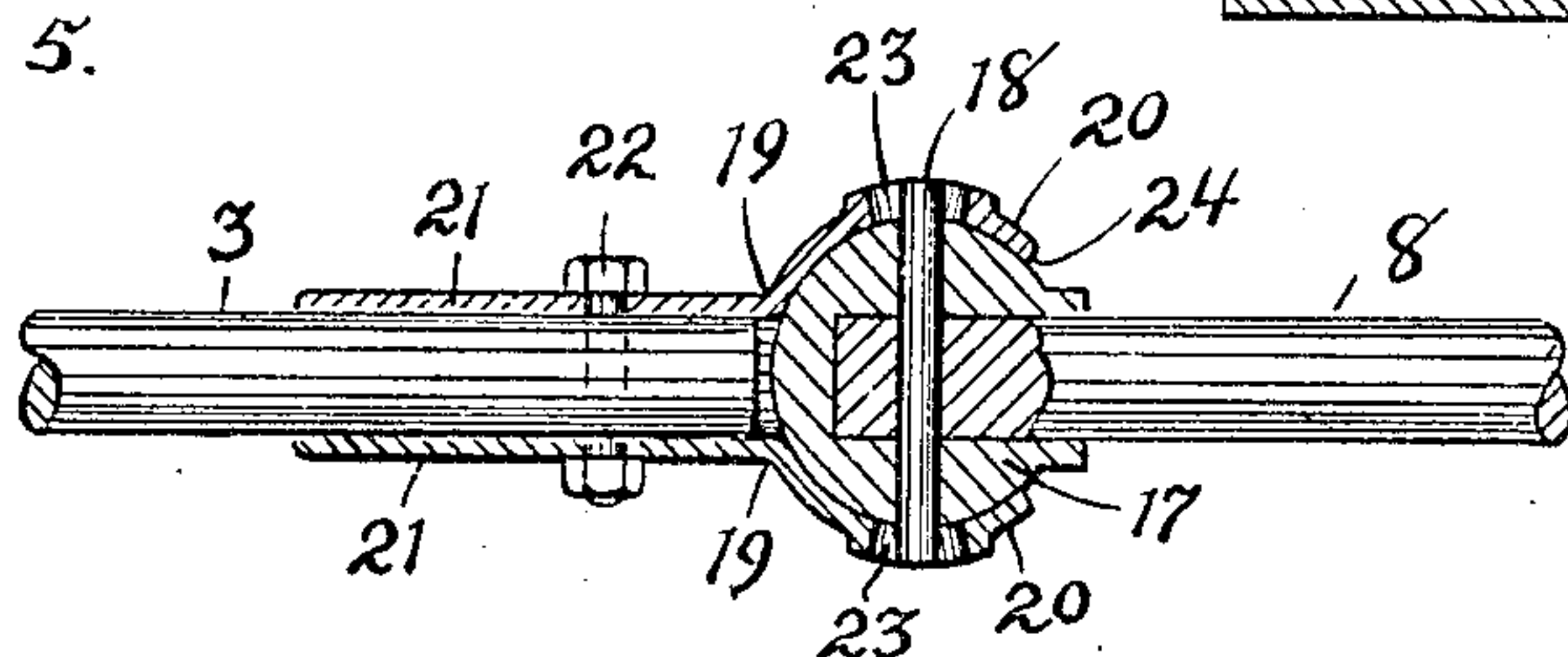


Fig. 6.

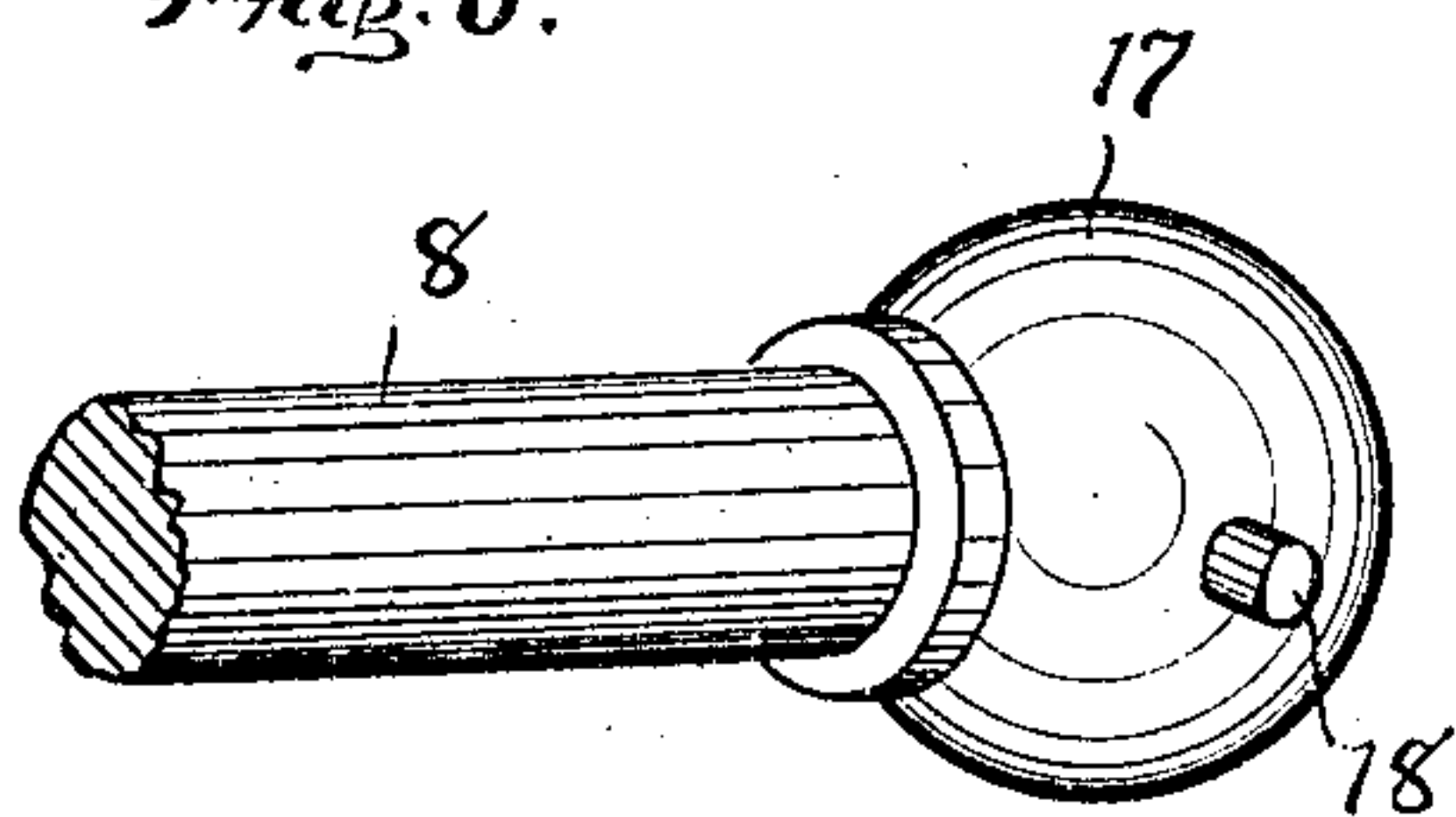


Fig. 7.

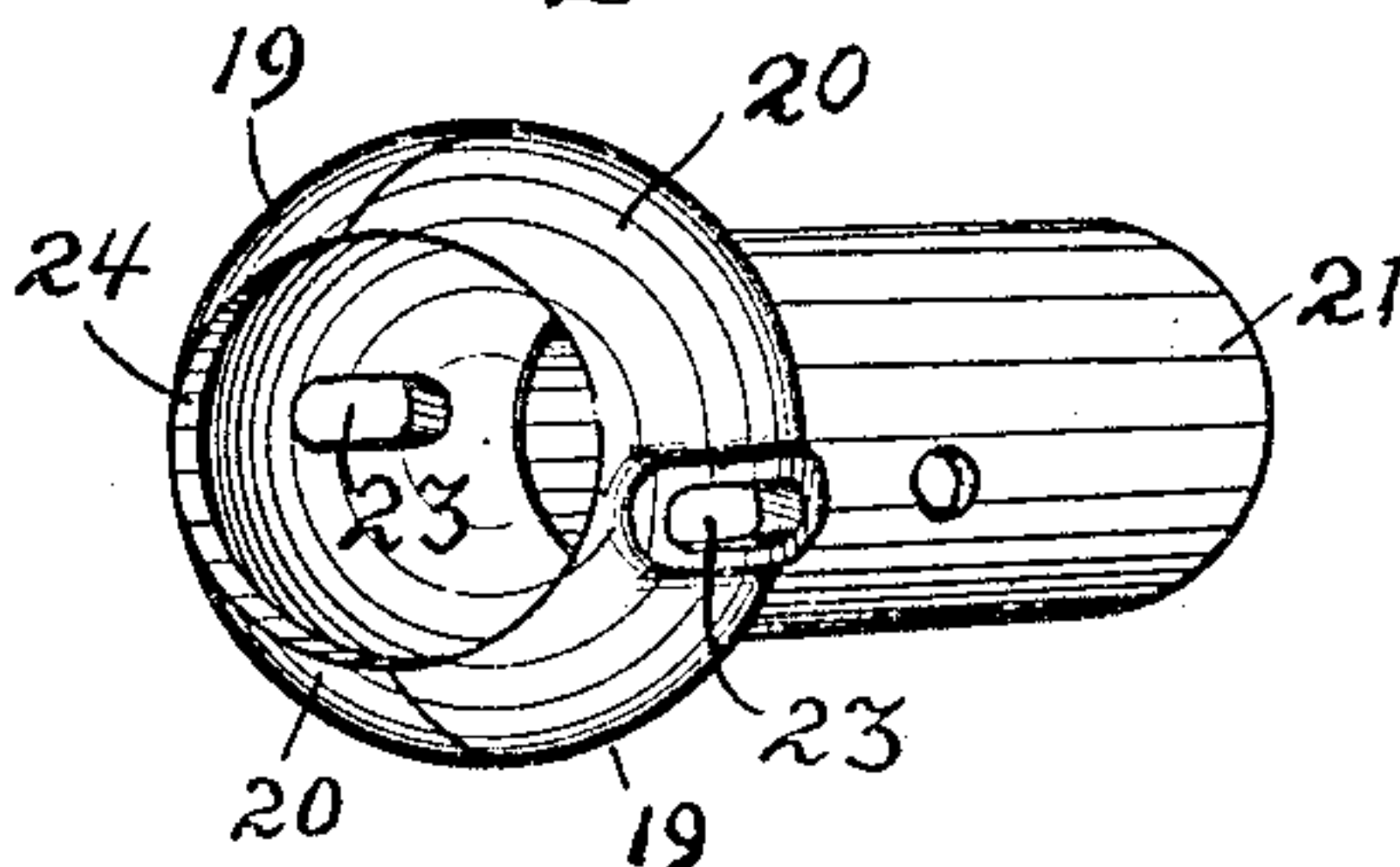
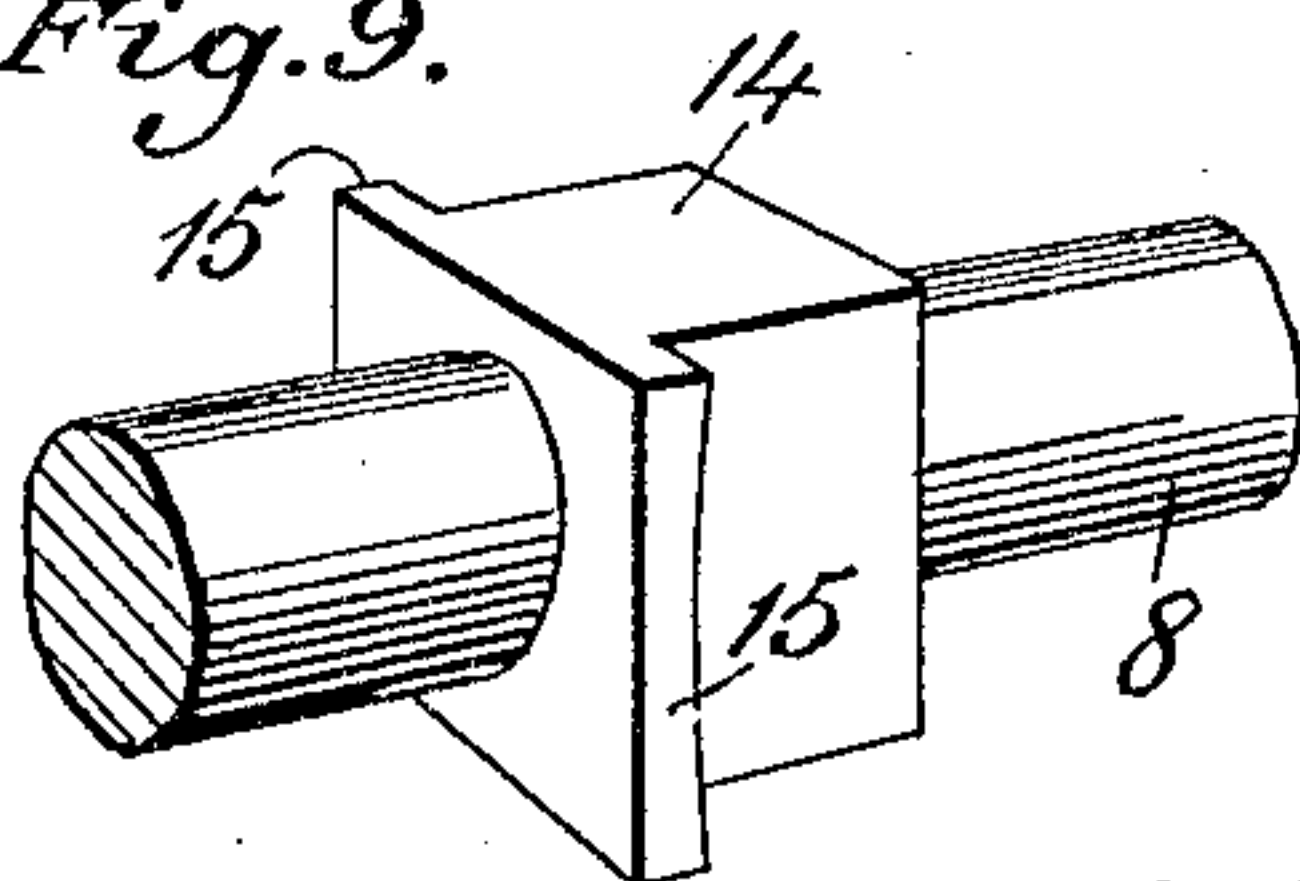


Fig. 9.



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# UNITED STATES PATENT OFFICE.

JOHN C. PETERS, OF FORT WAYNE, INDIANA.

## DRIVING MECHANISM FOR WASHING-MACHINES.

No. 875,732.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed April 19, 1905, Serial No. 256,358.

*To all whom it may concern:*

Be it known that I, JOHN C. PETERS, a citizen of the United States of America, and resident of Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Driving Mechanism for Washing-Machines, of which the following is a specification.

This invention relates to improvements in driving mechanism for washing machines of the class in which is employed a tumbling-shaft and pinion in connection with a pin row, and the object of the improvement is to afford a sufficient bearing for the tumbling-rod which will accommodate itself according to the various positions of the latter without seriously wearing its guide. This object is accomplished by the construction illustrated in the accompanying drawings, in which:

Figure 1. is a transverse section showing the driving-mechanism of a washing-machine of the character stated, with this invention embodied therein; Fig. 2. is a plan of the same; Fig. 3. is a detail showing a front view of the intermediate driving-member; Fig. 4. is a side elevation of Fig. 3; Fig. 5. is a detail of the universal-joint partly in central section; Fig. 6. is a detail view in perspective showing the ball portion of the universal-joint; Fig. 7. is a detail view in perspective of the socket portion of the universal-joint; Fig. 8. is a detail view in perspective of the guide for the bearing-block for the tumbling-shaft; Fig. 9. is a detail view in perspective of the bearing-block for the tumbling-shaft.

Similar numerals of reference indicate corresponding parts throughout the several views, and referring now to the same:

1 is a supporting-casting mounted upon a suds-vessel 2, and 3 is the driving-shaft rotatively mounted in the casting.

4 is an intermediate oscillating driving-member mounted upon a stud 5 which projects from the casting. The intermediate driving member has a row of pins 6 in connection therewith which are radially disposed, and also has a guard 7 which surrounds said row of pins. A tumbling-shaft 8 has connection with said driving-shaft and is adapted to be rotated thereby, and the other end of the tumbling-shaft is adapted to have vertical play and has mounted thereon a pinion 9 which engages the row of pins alternately upon the upper and lower side thereof so that the intermediate driving-member 4 will thereby be oscillated. An internal rack

10 is arranged in connection with the intermediate driving-member and meshes with the gear 11 which is mounted upon an agitator-shaft 12, the latter being mounted in the supporting-casting 1, and adapted to be actuated according to the motion of the intermediate driving-member.

It will appear that in the operation of the driving-mechanism, the tumbling-shaft 8 will rotate as well as swing vertically and that in so swinging the tumbling-shaft will be directed by the guide 13, and that sufficient play is necessary between the tumbling-shaft and driving-shaft to admit of the vertical movement of the former.

To provide a suitable bearing for the swinging end of the tumbling-shaft a bearing-block 14 is fitted in the guide 13 in which it is adapted to slide vertically, and has lateral lugs 15 which conform with the respective curved faces 16 of said guide. The driving pinion is mounted near the end of the tumbling-shaft with its hub adjacent the bearing-block so that the latter is thereby held in its proper relation with the guide.

It will appear that the bearing block moves in an arc corresponding with the swing of the tumbling shaft and is held in its course by the engagement of its lateral lugs with the curved faces of the guide.

The connection between the tumbling-shaft and driving-shaft consists of a ball 17 rigidly fixed upon the end of the tumbling-shaft with a pin 18 extending diametrically through the ball and tumbling-shaft, and with its ends protruding from the respective opposite sides of the ball; and the other part of the connection is composed of a socket consisting of two metallic shells 19 of like form, each having a semi-spherical portion 20 at one end and a half sleeve section 21 at the other. The two shells 19 are secured to the end of the driving-shaft 3 by means of a bolt 22 which extends through said sleeve sections and driving-shaft, the two shells being oppositely disposed so that the semi-spherical portions thereof will receive the ball 17 on the tumbling-shaft. A longitudinal slot 23 is made in the semi-spherical portion of each of said shells and when the latter are in proper position, the slots range diametrically opposite, and the protruding ends of the pin 18 extend respectively through the corresponding slots. A recess 24 is made in the outer end of the semi-spherical portion of each shell, and so



proportioned as to admit swinging movement of the tumbling-shaft relative to the driving-shaft, and the slots 23 are also of such proportion as to admit movement of  
5 the protruding ends of the pin 18 as is occasioned by the swinging movement of the tumbling-shaft.

Another feature in connection with the tumbling-shaft is a loose sleeve 25 mounted  
10 upon the extreme end thereof beyond the driving-pin 9, the sleeve serving as an anti-friction roller which acts against the guard 7 as the pinion travels from one side of the row of pins to the other.

15 Having described my invention what I claim as new and desire to secure by Letters Patent, is:

1. In mechanism of the class described, a guide having curved faces; a rotatable swing-  
20 ing tumbling shaft extending through the

guide; a bearing block for the tumbling shaft having oppositely disposed lugs which act against the curved faces of the guide; and means fixed on the tumbling shaft adjacent the bearing block to hold the latter  
25 in proper relation with the guide.

2. In mechanism of the class described, a guide having curved faces; a bearing block having bearing relation with said faces; and a swinging tumbling shaft extending through  
30 the block and having means at its extending end to preserve the relation between the block and guide.

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

JOHN C. PETERS.

Witnesses:

H. J. LAMPKE,  
W. G. BURNS.