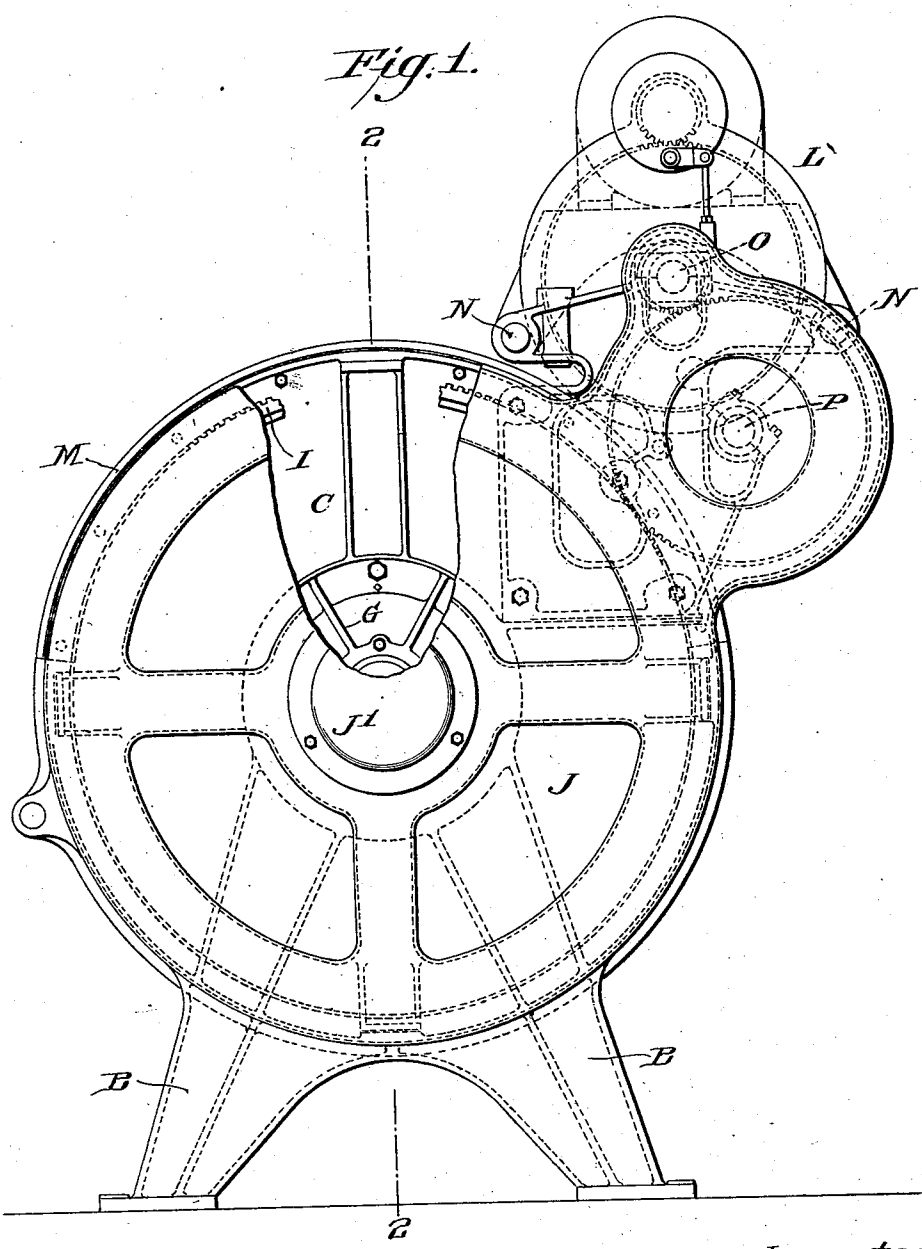
May 26, 1931. W. H. JAXHEIMER 1,807,214

WASHING MACHINE

Filed May 2, 1929 2 Sheets-Sheet 1

Fig. 1.



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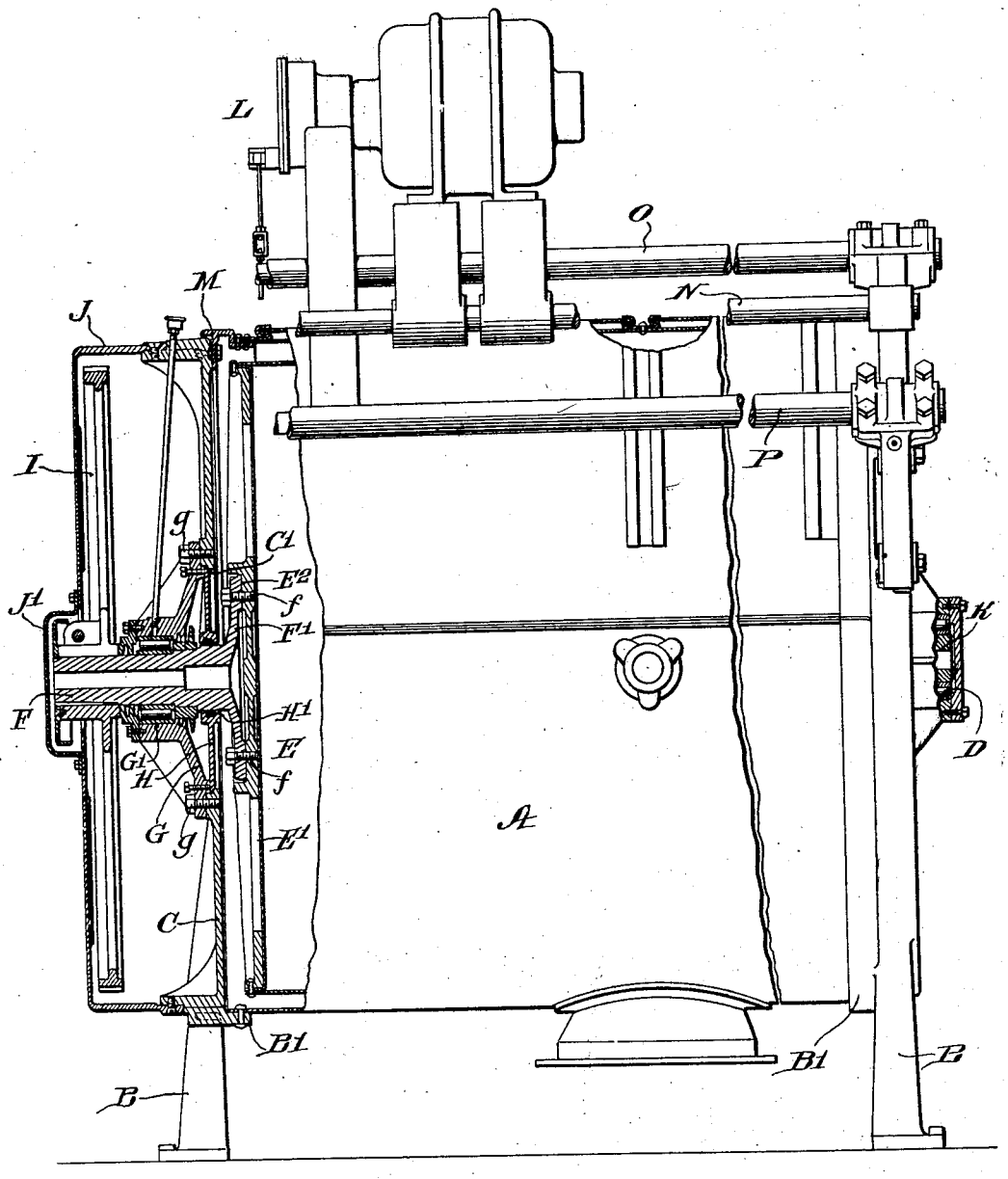
Witness:

May 26, 1931. W. H. JAXHEIMER 1,807,214

WASHING MACHINE

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Fig. 2.



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Patented May 26, 1931 1,807,214

UNITED STATES PATENT OFFICE

WILLIAM H. JAXHEIMER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO SMITH, DRUM & COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA

WASHING MACHINE

Application filed May 2, 1929. Serial No. 359,974.

My invention relates to washing machines of a familiar type, the object of my invention being to provide for the easy and convenient insertion and withdrawal of the washing machine cylinder in the casing in which it works and, at the same time, to provide a construction which will avoid the necessity of forming the end plate or plates with slots to give passage to the driving shaft of the cylinder as has heretofore been the practice. In accordance with my invention I provide a driving shaft for the cylinder having a circular flanged end by which it can be secured by bolts to the end of the cylinder and I provide in the end plate of the casing an opening, preferably circular, of sufficient area to give passage to the flanged end of the shaft so that the shaft can be attached to the cylinder after the cylinder is lowered into place in the casing and I provide an annulus the edges of which are adapted to be secured to the margins of the opening in the end wall and the inner portion of which is adapted to form a support or bearing for the shaft. By preference also I provide a second annulus which is attachable to the ends of the opening in the end plate or to the first annulus which forms or supports a stuffing box fitting on the shaft and preventing the escape of water from the casing along the shaft.

The nature of my improvement will be best understood as explained in connection with the drawings, in which

Figure 1 is an end elevation, with the gear casing partially broken away, of a washing machine provided with my improvement and

Figure 2 is a side elevation, partly in section, on the line 2—2 of Fig. 1.

A indicates the shell of the casing, the lower portion of which is secured to flanges B^1 of supporting frames B, B. These frames support the end plates of the casing. The upper portion of the container shell is, as is usual in machines of this kind, detachable and removable to permit the insertion and withdrawal of the cylinder. One of the end plates, indicated at C, is formed with a central opening indicated at C^1, of sufficient area to give passage to the flange of the cylinder driving shaft to be described. D indicates a bearing support secured to the other end plate of the casing and supporting a short bearing or stub shaft secured to the end of the cylinder and indicated at K. E indicates the cylinder, E^1 an end plate of the cylinder having on its outer face a seat E^2 formed to receive the flange of the driving shaft or spindle. F indicates the shaft which is provided with a radial flange F^1 fitting in the seat E^2 of the cylinder, to which it is secured by bolts *f*. G is an annulus which is secured by bolts to the margin of the opening C^1 in the end plate C and the inner end of which forms a bearing indicated at G^1, *g* indicating the bolts which secure the annulus to the end plate. H is a second annulus, which as shown is clamped between the end plate of the casing and the annulus G, the inner end of which H^1 forms a stuffing box for the shaft. I indicates a gear wheel secured to the end of the shaft. J indicates a removable casing for the gear and attachments at the end of the main casing, J^1 indicating a cap piece extending over the end of the shaft. L indicates the motor and gear train for driving the cylinder through its gear wheel I, these parts being attached to rods indicated at N, O and P indicating shafts forming a part of the transmission mechanism. M is a detachable rim which is secured to the upper portion of the end plate C of the casing and to the body A of the casing, this rim is made detachable so that when it is desired to insert or remove the cylinder it can be removed.

The machine is assembled by lowering the cylinder into the casing, then inserting the flanged shaft through the opening in the end plate of the casing and attaching it to the end plate of the cylinder, then inserting the annulus H in position and then inserting the annulus G and securing it to the end plate. The detachable rim can of course be attached to the end plate and body of the casing at any time after the cylinder is inserted.

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

A washing machine comprising a rotatable cylinder having a stub shaft secured to one

end, a driving shaft having a flanged inner end rigidly but detachably secured to its other end by fastening means in combination with a casing having a bearing for the stub shaft secured to one end plate and the other end plate formed with an opening of larger size than the flanged end of the driving shaft, of such conformation as to permit of the passage of the flanged end of the driving shaft therethrough and to afford access to the fastening mechanism by which the flange is secured to the end of the cylinder, a closure for said opening support, a bearing for the driving shaft detachably secured to the outer face of the end plate and a second closure plate detachably secured inside of the first closure plate supporting a stuffing box for the shaft.

WILLIAM H. JAXHEIMER.