C. JACKSON.

WASHING MACHINE.

APPLICATION FILED JAN. 18, 1909.

927,727. Patented July 13, 1909.

Fig. 1.

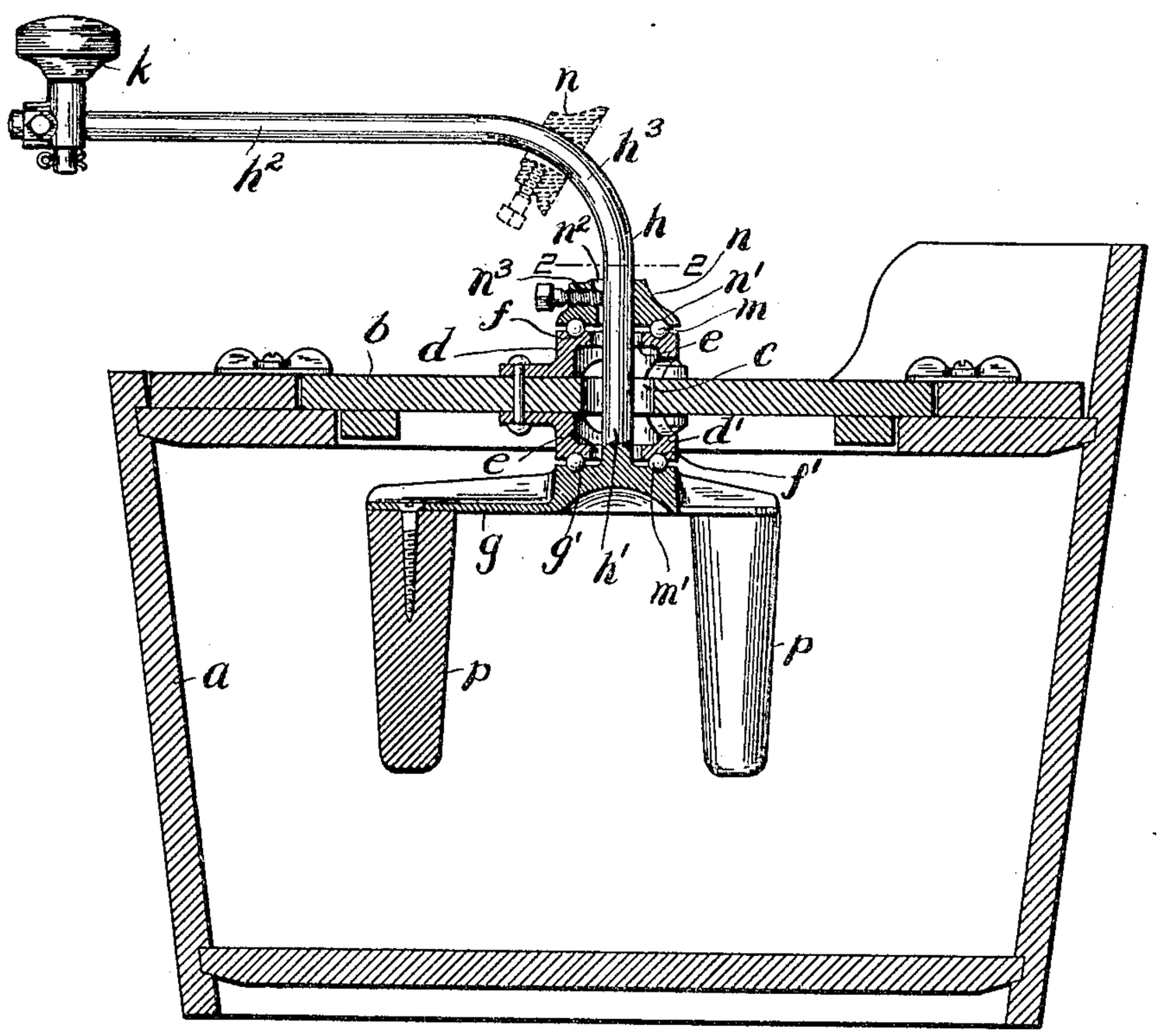
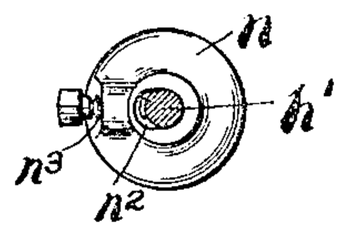


Fig. 2.



Witnesses

D. W. Stewart

Caleb J. Dieber

Inventor

Calvin Jackson,

By J. W. Stewart

Attorney

ANDREW. B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON D. C.

UNITED STATES PATENT OFFICE.

CALVIN JACKSON, OF READING, PENNSYLVANIA, ASSIGNOR TO BENJAMIN Y. SHEARER, WELLINGTON M. LEINBACH, WAYNE L. SHEARER, AND PAUL K. LEINBACH, ALL OF READING, PENNSYLVANIA.

WASHING-MACHINE.

No. 927,727. Specification of Letters Patent. Patented July 13, 1909.

Application filed January 18, 1909. Serial No. 472,812.

To all whom it may concern:

Be it known that I, CALVIN JACKSON, a citizen of the United States, and a resident of the city of Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to washing machines having a rotary agitator, and my object is to provide a simple construction employing a one-piece rotary agitator-frame with curved-rod crank shaft having a vertical shaft portion which is readily and satisfactorily mounted in the lid of the tub and a horizontal portion serving as a permanently secured crank handle for the agitator.

The invention is fully described in connection with the accompanying drawing and is specifically pointed out in the claim.

Figure 1 is a sectional elevation of a washing machine embodying my improvements. Fig. 2 is a plan view of the removable bearing collar showing the inclosed shaft in section on the line 2—2 of Fig. 1.

The tub *a* and lid *b* are of ordinary construction. The latter is provided with an enlarged agitator-shaft aperture *c*, and with upper and lower shaft-bearing rings *d d'* secured thereto; said rings being also provided with enlarged shaft apertures *e* and with reversely arranged ball-race grooves *f f'*.

The agitator frame *g* has a crank-shaft *h* fixed thereto to form a one-piece device; said shaft consisting of a curved rod of round cross-section, having a straight vertical portion *h'* extending upward from the ball-race hub *g'* of the agitator frame through and above said bearing rings, and a horizontal handle portion h^2 with curved connecting portion h^3. A handle *k* is removably secured to the portion h^2.

In mounting the one-piece agitator frame and crank shaft, in the lid *b*, the curved-rod shaft is readily passed through the enlarged apertures of the lid and bearing rings, so that the lid rests upon anti-friction balls *m'* placed in the race-ways of the agitator hub *g'* and lower ring *d'*. To carry the agitator I employ a bearing-collar *n* having a race-way *n'* and an aperture n^2 the main portion of which is concentric with the race-way *n'* but which is made oblong, in the direction of a set-screw opening n^3, so as to enable the collar to be freely strung upon the shaft by passing it over the horizontal and curved portions h^2 h^3 to the vertical portion *h'*, where it is adjustably fixed by means of the set screw, upon the interposed anti-friction balls *m*.

In my improved construction the one-piece frame and crank shaft prevents any possible loosening or disengagement such as ordinarily involves considerable trouble; and in connection with the attached agitator pegs *p* is readily stored in the tub *c* when disassembled by removing the bearing collar *n* and antifriction balls.

What I claim is:

In a washing machine the combination with a lid having upper and lower shaft-bearing rings fixed thereto and enlarged shaft apertures therein, of a one-piece rotary agitator-frame with curved-rod crank-shaft, a vertical portion of said shaft extending through and above said shaft-bearing rings; and a bearing collar with oblong opening therein strung upon said curved-rod crank-shaft and centrally secured thereto above the upper shaft-bearing ring, substantially as set forth.

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

CALVIN JACKSON.

Witnesses:

D. M. STEWART,

W. G. STEWART.