(No Model.)

O. W. BARNARD.

WASHING MACHINE GEAR.

No. 252,416. Patented Jan. 17, 1882.

Fig. 1.

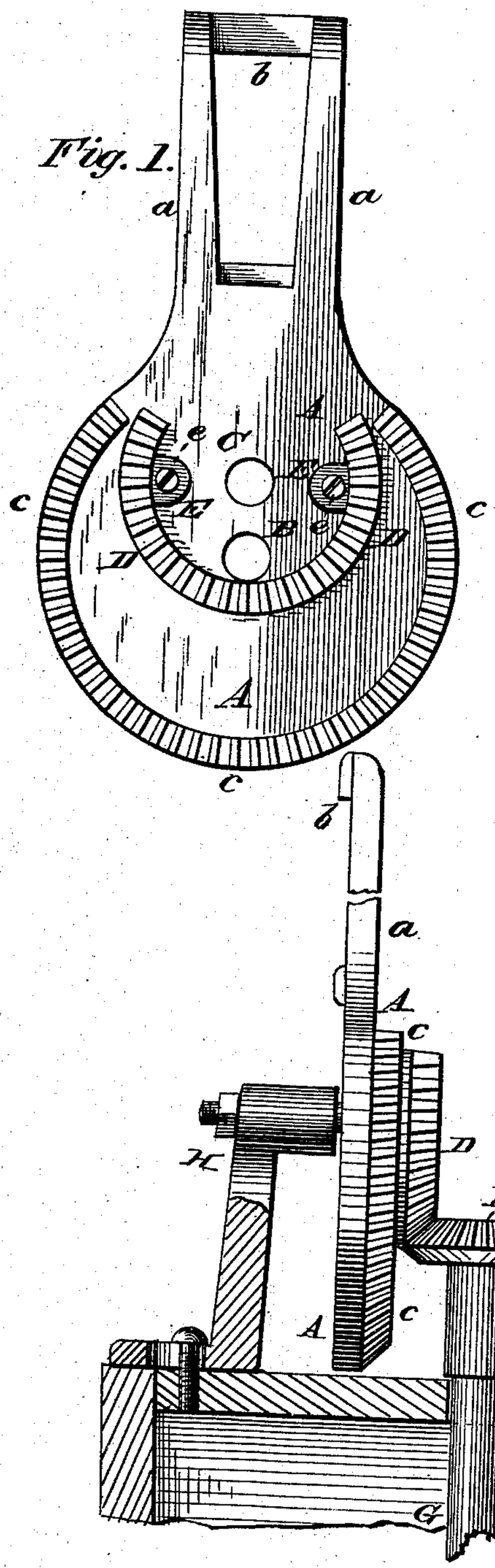

Fig. 2.

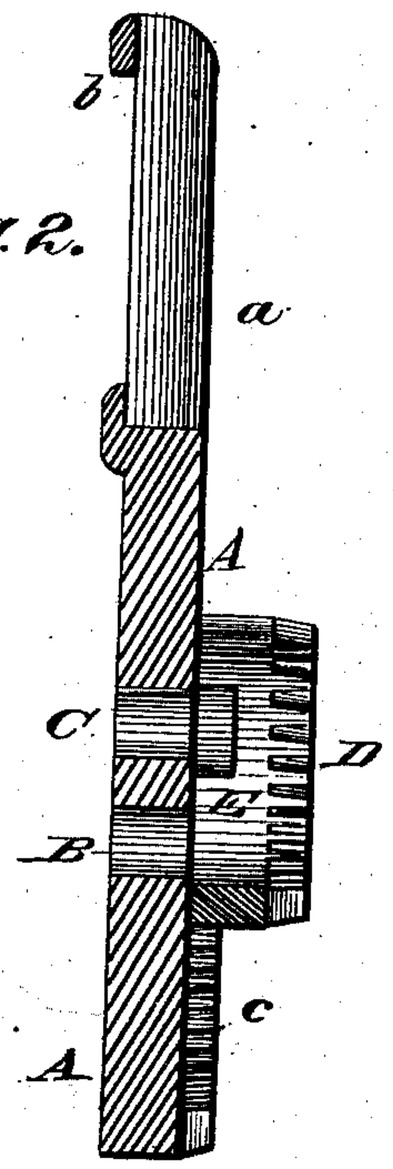

Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

OBED W. BARNARD, OF HARLAN, IOWA.

WASHING-MACHINE GEAR.

SPECIFICATION forming part of Letters Patent No. 252,416, dated January 17, 1882.

Application filed October 31, 1881. (No model.)

To all whom it may concern:

Be it known that I, OBED W. BARNARD, of Harlan, in the county of Shelby and State of Iowa, have invented certain new and useful Improvements in Washing-Machine Gear; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a face view of the drive-wheel of my improved gear for washing-machines. Fig. 2 is a longitudinal central section of the same, and Fig. 3 is a side elevation of the top part of so much of an agitator washing-machine as is necessary to illustrate the application and operation of my invention.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to the mechanism for operating so-called "agitator" washing-machines; and it consists in the detailed construction and arrangement of the drive-wheel with a double set of cogs and two bearings arranged-one above the other for regulating the stroke of the wheel, substantially as hereinafter more fully described, and particularly pointed out in the claims.

In the annexed drawings, A represents the circular disk or body of the drive-wheel, which is cast in one piece with two parallel uprights, *a a*, united by a cross-bar, *b*, on top, which forms the handle.

The circumference of the disk A is cast with inwardly-projecting triangular cogs or teeth *c*, and has a central bearing, B, above which is another bearing, C.

D represents an auxiliary set of cogs, of the same shape and construction as the cogs *c* of the main wheel, the body of which is cast with two inwardly-projecting lugs or ears, E E. The set of cogs D, with its ears E, is a separate casting, which is secured detachably upon the face of the disk A by bolts *e e*, inserted through the ears E E and coinciding bolt-holes in the face of the disk, so placed or arranged that the casting D will have the upper bearing, C, of disk A as its center. In other words, the sets of cogs *c* and D are not concentric with one another, the former having as its center the central bearing, B, of disk A, and the latter the bearing C.

F is the pinion of the rotary reciprocating agitator-shaft G, which is adapted to engage with either one of the two sets of cogs. As the detachable inner set, D, of these projects some distance in over the face of disk A, the latter is made adjustable upon the center-pin or fulcrum H laterally, so as to bring either one of the two sets of cogs *c* or D to mesh with the pinion F.

From the foregoing it will be seen that the disk or drive-wheel A may be shifted upon its fulcrum H and adjusted so as to bring either one of the two sets of cogs into play, thus regulating the length of the stroke of the agitator, and, of course, the power necessary for operating it. In washing bed-quilts, carpets, or other heavy material the stroke is shortened by inserting the fulcrum-bolt H through the upper bearing, C, and bringing the inner or auxiliary set of cogs, D, into play, while the bearing B and cogs *c* are brought into play in washing wearing apparel or other articles of a character to be handled easily.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The drive-wheel A, cast with the inwardly-projecting cogs *c* and handle *a a b*, and having a central bearing, B, and auxiliary bearing C, and auxiliary set of cogs D, cast with ears E E for their attachment to the face of disk A, concentric with the upper or auxiliary bearing, C, substantially as and for the purpose herein shown and described.

2. The combination, with the pinion F of a washing-machine agitator, of the vertically and horizontally adjustable drive-wheel A, provided with double bearings B and C, and with a set of detachable auxiliary cogs, D, adapted to be fastened upon the face of the disk or wheel A, concentric with its bearing C, substantially in the manner and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

OBED W. BARNARD.

Witnesses:

J. W. BURNS,

R. M. JAMESON.