J. D. WINDSOR.

MECHANICAL MOVEMENT.

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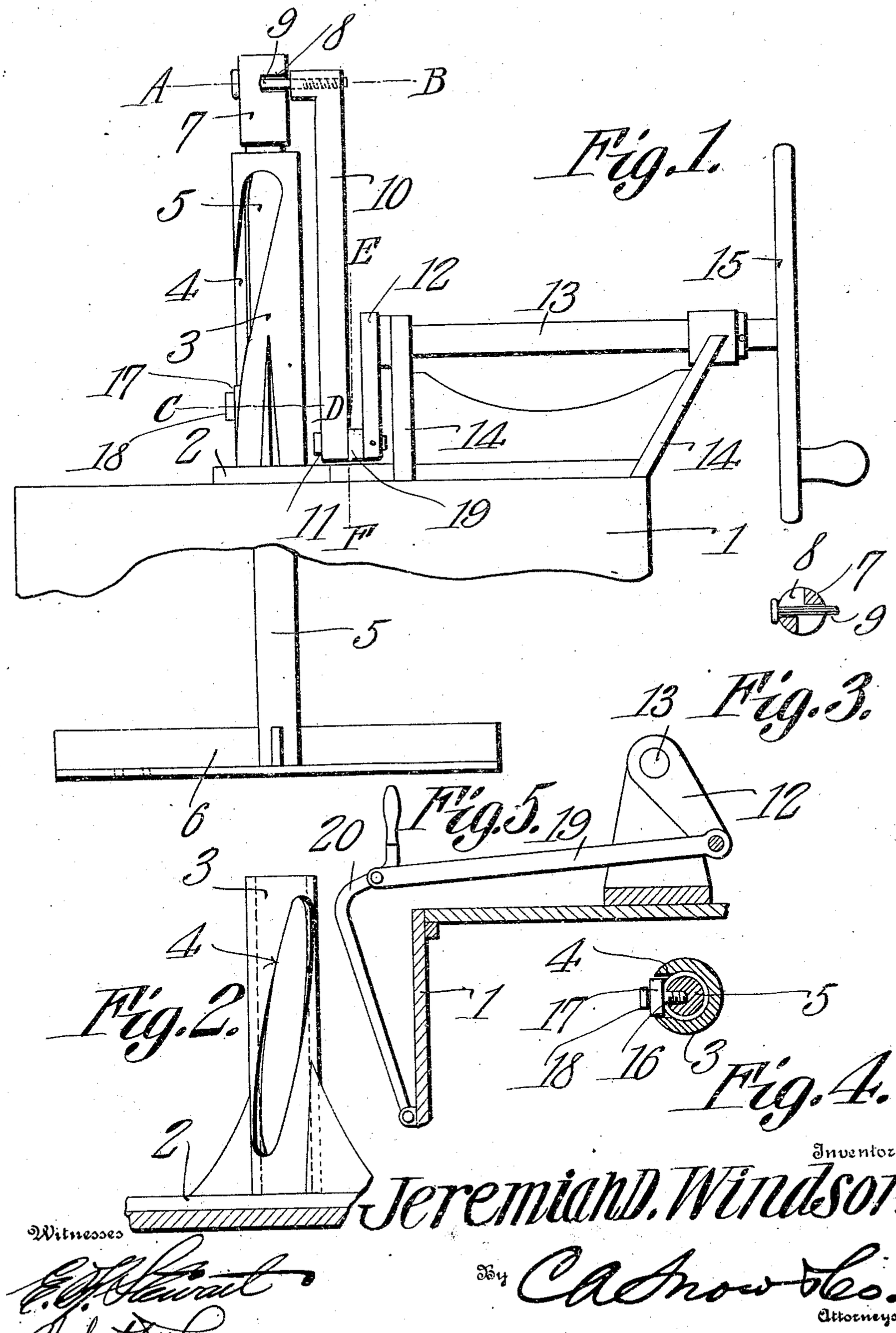
956,462. Patented Apr. 26, 1910.



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JEREMIAH D. WINDSOR, OF NOKOMIS, ILLINOIS.

MECHANICAL MOVEMENT.

956,462. Specification of Letters Patent. Patented Apr. 26, 1910.

Application filed October 21, 1909. Serial No. 523,812.

To all whom it may concern:

Be it known that I, JEREMIAH D. WINDSOR, a citizen of the United States, residing at Nokomis, in the county of Montgomery and State of Illinois, have invented a new and useful Mechanical Movement, of which the following is a specification.

This invention relates to mechanical movements and more particularly to means whereby the pounder of a washing machine can be given a combined rotary and reciprocatory movement by the rotation of a main or drive shaft.

Another object is to provide a simple form of mechanism whereby this movement of the pounder may be obtained, said mechanism being formed of few parts and therefore durable and easy to operate.

Another object is to provide mechanism of this type which can be easily cleaned and all parts of which are readily accessible for the purpose of making repairs, etc.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings, Figure 1 is a front elevation of the operating mechanism of the washing machine, only a portion of the casing of said machine being shown. Fig. 2 is a detail view of the guide post or standard of the mechanism. Fig. 3 is a section on line A—B Fig. 1. Fig. 4 is a section on line C—D Fig. 1. Fig. 5 is a section on line E—F, Fig. 1.

Referring to the figures by characters of reference 1 designates a portion of the casing of a washing machine and secured upon this casing is a base plate 2 having a tubular standard 3 thereon and integral therewith, this standard being provided with an elongated slot 4 extending spirally around the standard for about one quarter of the circumference thereof.

A rod 5 is mounted for sliding and rotary movement within the standard 3 and is provided at its lower end with a suitable pounder 6 while its upper end has an enlargement or head 7 through which extends a slot 8, the said slot being flared from its center to its outer ends as shown particularly in Fig. 3, the walls at the sides of the slot being preferably disposed at right angles to each other and there being sufficient space between opposed walls to receive a pin 9 which extends perpendicularly from the upper end of a pitman 10. This pitman is mounted on a wrist pin 11 extending from a crank 12, the said crank being secured to and actuated by a shaft 13. This shaft is journaled in standards 14 secured on the casing 1 and is designed to be driven in any preferred manner as by means of a wheel 15.

A screw 16 engages the rod 5 and extends radially therefrom and through the slot 4 in standard 3, this screw constituting a bearing for a guide roller 17 the diameter of which is slightly less than the width of the slot, there being a head 18 upon the screw for holding the roller against displacement.

By providing mechanism such as herein described it will be seen that when shaft 13 is rotated by means of the wheel 15 the crank 12 will transmit motion through the pitman 10 to the pin 9 and the rod 5 will thus be reciprocated within the tubular standard 3, causing the pounder 6 to move upward and downward therewith. During this movement of the rod 5 the roller 17 will travel within the spiral slot 4 and cause the rod to make a one-quarter rotation during the upward movement thereof or during its downward movement it will make a one-quarter rotation in the opposite direction. The action of the pounder 6 will thus be such as to quickly clean the fabrics engaged thereby because of the rubbing and pressing action exerted thereagainst.

As shown particularly in Fig. 5, a pitman 19, may be mounted on the wrist pin 11 between pitman 10 and crank 12, this pitman 19 extending laterally and being pivotally connected to a lever 20 which is fulcrumed upon one side of the tub 1. By providing a lever such as shown and described the machine can be actuated either by means of the wheel 15 or by the lever 20, according to the wishes of the operator. When the lever is used the wheel 15 operates as a fly wheel.

By mounting the roller 17 upon a screw extending radially from the rod 5, the said roller can be readily reached for the purpose of replacing or adjusting it, and moreover, the roller lies close to the rod and the transverse strain upon the screw 5 is thus reduced to the minimum. The connection between the pitman and the rod is advantageous because it dispenses with the use of a swiveled head such as ordinarily employed. More-

over the pin 19 can be screw threaded so as to detachably engage the pitman, and, therefore, the same can be readily removed for the purpose of detaching the pitman from the rod.

It is of course to be understood that various changes may be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention.

What is claimed is:—

In a washing machine, a stationary tubular standard having a spiral slot, said slot extending partly around the standard, a rod mounted to reciprocate and rotate within the standard, a detachable radially extending bearing element upon the rod, a roller journaled on said element and mounted to travel within the slot, a head upon the rod having a diametrical slot therein, the said slot increasing in width from its center to its ends, a pitman, a pin detachably engaging the pitman and extending through the slot, a crank for actuating the pitman, an oscillatory actuating lever, a connection between the crank and lever, and a wheel revoluble with the crank.

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

JERRY D. WINDSOR.

Witnesses:
ROY H. CALIHAN,
WILLIAM O. ADDEN.