

No. 648,950.

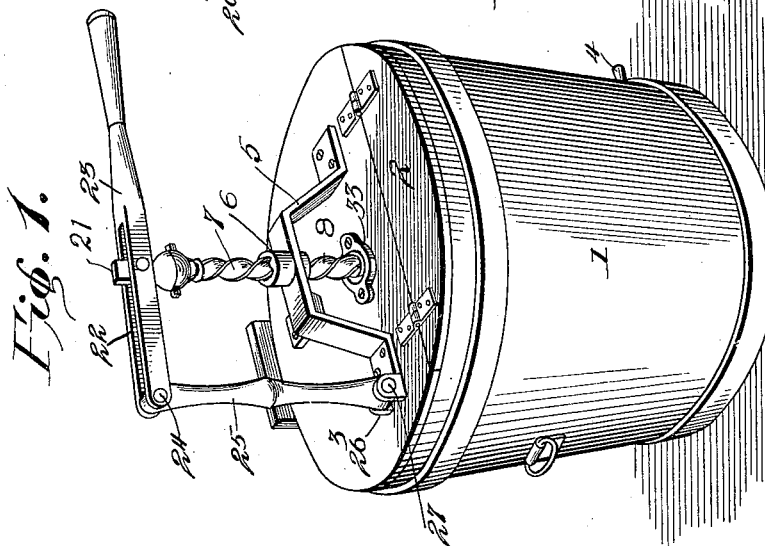
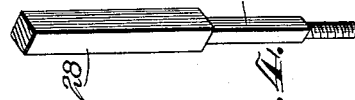
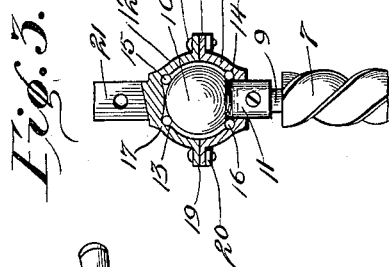
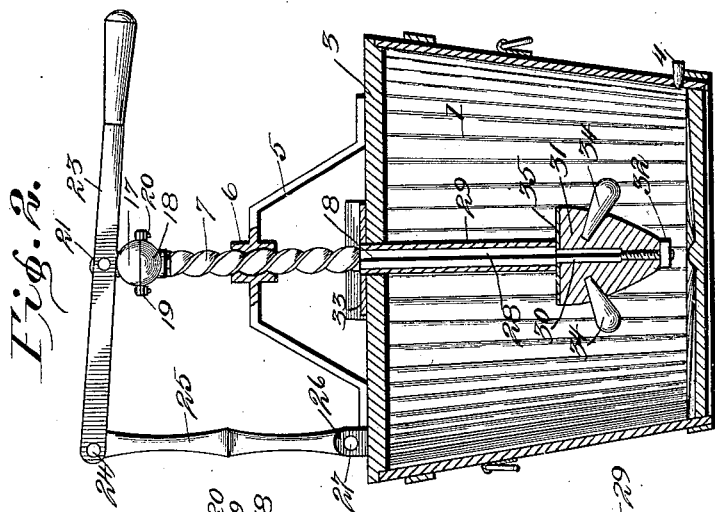
Patented May 8, 1900.

F. B. HANNAH, SR.

WASHING MACHINE.

(Application filed June 3, 1899.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

FERREL B. HANNAH, SR., OF UMATILLA, FLORIDA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 648,950, dated May 8, 1900.

Application filed June 3, 1899. Serial No. 719,232. (No model.)

To all whom it may concern:

Be it known that I, FERREL B. HANNAH, Sr., a citizen of the United States, residing at Umatilla, in the county of Lake and State of Florida, have invented a new and useful Washing-Machine, of which the following is a specification.

The invention relates to improvements in washing-machines.

10 The object of the present invention is to improve the construction of washing-machines and to provide a simple and comparatively-inexpensive one capable of rapidly and thoroughly washing clothes at the expenditure of
15 a minimum amount of labor.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed
20 out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a washing-machine constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is an
25 enlarged detail sectional view illustrating the construction of the connection between the operating-lever and the shaft. Fig. 4 is a detail view of the lower portion of the shaft. Fig. 5 is a similar view of the sleeve. Fig. 6
30 is a similar view of the combined pounder and agitator.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

35 1 designates a tub forming a washing-machine body and provided with a cover 2, having a hinged section 3, adapted to be opened to afford access to the interior of the body and carrying the washing mechanism and enabling the same to be readily carried out of
40 the said body, so that clothes may be placed therein and removed therefrom. The body, which is provided at opposite sides with suitable handles, has a drain-opening at its bottom and is provided with a removable plug 4,
45 adapted to be removed from the opening.

Mounted upon the hinged section of the cover is a bracket 5, provided with three legs and having a central nut 6, which is engaged
50 by a threaded portion 7 of a vertically-movable shaft 8, whereby the latter is rotated as it is reciprocated. The upper end of the shaft

is provided with a shank 9, to which is secured a ball 10, having a sleeve 11 fitting over the shank 9 and secured to the same by 55 a transverse fastening device which passes through registering perforations of the parts. The ball 10 is arranged within a sectional spherical socket 12, provided with upper and lower ball-races 13 and 14, receiving upper 60 and lower antifriction-balls 15 and 16, as clearly illustrated in Fig. 3 of the accompanying drawings. The socket is composed of upper and lower semispherical sections 17 and 18, which are provided at their adjacent 65 edges with flanges 19, perforated for the reception of suitable fastening devices 20, whereby the sections are detachably connected.

The lower section 18 of the socket is provided with an opening to receive the sleeve 70 11, which forms a shank for the ball, and the upper section 17 is provided with an arm or shank 21, which is pivoted in a slot or bifurcation 22 of an operating-lever 23. The operating-lever 23, which is provided at its front 75 end with a handle, has its rear portion bifurcated and pivoted at 24 to a fulcrum-bar 25, and the latter has its lower end pivoted between a pair of ears 26 of the bracket by a suitable fastening device 27. 80

The shaft is provided below its threaded portion 7 with a squared portion 28, on which is arranged a cylindrical sleeve 29, having a rectangular bore or opening to conform to the configuration of the squared portion of the 85 shaft. The lower end of the shaft is reduced to form a shank 30, which is threaded and which passes through a combined pounder and agitator 31. The shank 30 is threaded at its outer portion and receives a nut 32, which 90 retains the combined pounder and agitator on the shaft. The lower portion 28 of the shaft is reduced to enable the shaft to be passed through the nut 6 from the top, and the sleeve 29, besides forming a bearing portion, operates as a shield to prevent the shaft, 95 which must be constructed of steel, from rusting the clothes. The sleeve passes through a guide 33, which is secured to the upper face of the hinged section of the cover over an 100 opening thereof, and when the operating-lever is oscillated the shaft will be vertically reciprocated. As the shaft reciprocates vertically the nut 6 of the bracket 5 will cause it to ro-

tate, whereby the agitator 31 is rotated and moved vertically and is adapted to operate as a pounder. The ball-bearing which connects the upper end of the shaft with the operating-lever enables the shaft to rotate with a minimum amount of friction.

The combined presser and pounder consists of a conical block provided with outwardly-projecting arms 34 and having a spider 35 at its top. The spider, which is secured to the conical block by screws or other suitable fastening devices, is provided with a central rectangular opening to conform to the configuration of the shank 30, and it fits against the shoulder formed by the reduction of the lower end of the shaft.

The washing-machine body is provided on its interior with suitable rubbing-surfaces, over which the clothes are carried by the action of the washing mechanism. At one side of the body is arranged a wringer-supporting board or block which is adapted to receive an ordinary clothes-wringer.

It will be seen that the washing-machine is simple and comparatively inexpensive in construction, that it is easily operated, and that the combined agitator and pounder is reciprocated vertically and simultaneously rotated, whereby it is adapted to rapidly and thoroughly wash clothes. It will also be apparent that the ball-and-socket connection between

the shaft and the operating-lever reduces the friction to a minimum.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claim may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

A washing-machine comprising a body, a fixed nut mounted thereon and located above the top of the body, a shaft provided with a reduced polygonal lower portion and having a threaded upper portion to engage the fixed nut, a clothes-engaging device carried by the lower end of the shaft, a sleeve having a polygonal bore to conform to the configuration of the lower portion of the shaft and interposed between the threaded portion and the clothes-engaging device, said sleeve forming a shield and adapted to prevent clothes from coming in contact with the shaft, a guide arranged below the nut and receiving the sleeve, and means for operating the shaft, substantially as described.

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

FERREL B. HANNAH, Sr.

Witnesses:

J. P. THOMPSON,

J. M. ROBISON.