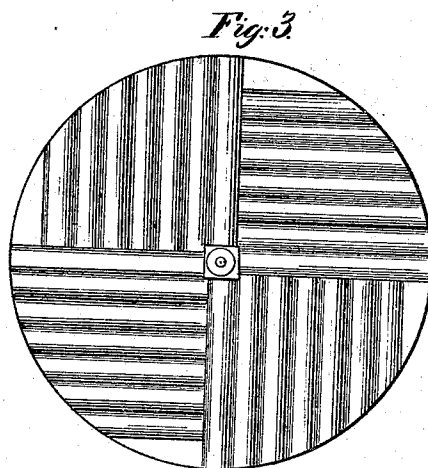
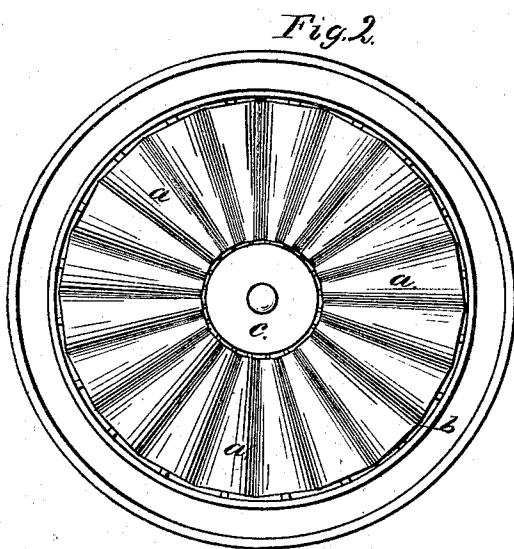
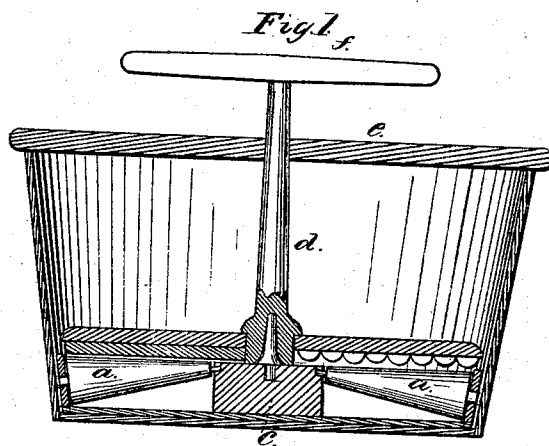


A. VAN ALLEN.
Washing-Machines.

No. 138,597.

Patented May 6, 1873.



Witnesses.
J. H. Craun
L. A. Warren

Inventor.
Abraham Van Allen.

UNITED STATES PATENT OFFICE.

ABRAHAM VAN ALLEN, OF FREEPORT, ILLINOIS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **138,597**, dated May 6, 1873; application filed January 28, 1873.

To all whom it may concern:

Be it known that I, ABRAHAM VAN ALLEN, of Freeport, county of Stephenson, and State of Illinois, have invented a new and useful Improvement in Washing-Machines, of which the following is a true and correct description, reference being had to the accompanying drawing, in which—

Figure I is a perpendicular section of machine. Fig. II is a top view of the under rubber. Fig. III shows the under side of upper rubber or follower.

a, in each figure, indicates the rollers; *b*, the hoop or frame surrounding the rollers; *c*, the center piece of bottom rubber; *d*, the upright shaft; *e*, the cross-bar to keep the shaft in upright position; *f*, the handle or lever to operate the machine. In Fig. I is seen the roller *a*, conical, and so placed as to be level on the top, leaving a space for sediment underneath. In Fig. II the same rollers are shown, filling the entire area of the circle, and each side of each roller forming the radius of the circle. Around the rollers is placed a frame or hoop, *b*, into which the rollers are journaled. In the center is shown the center piece *c*, into which the small ends of the rollers are journaled by means of slots, so that they

may be easily removed, and the whole fastened together by slats across the bottom. In Fig. III is seen the under side of the upper rubber or follower, made with corrugated surface, each quarter-section being filled with parallel corrugations, which are at right angles with those in contiguous sections; and, being so made, nearly all the corrugations are, when in use, diagonal to the rollers, giving a peculiar rubbing action, and very effectual for the purpose designed.

The manner of working is plainly indicated in Fig. I by rotating the upper rubber back and forth or around, as desired.

What I claim as my invention, and wish to secure by Letters Patent, is—

The washing-machine, constructed substantially as described, having for its lower disk or rubber the stationary system of revolving conical rollers *a a a*, the hoop *b* or its equivalent, the center block *c* with its center upright shaft or journal, and their necessary connections, all substantially as described, and for the purpose set forth.

ABRAHAM VAN ALLEN.

Witnesses:

J. A. CRAIN,
L. A. WARNER.