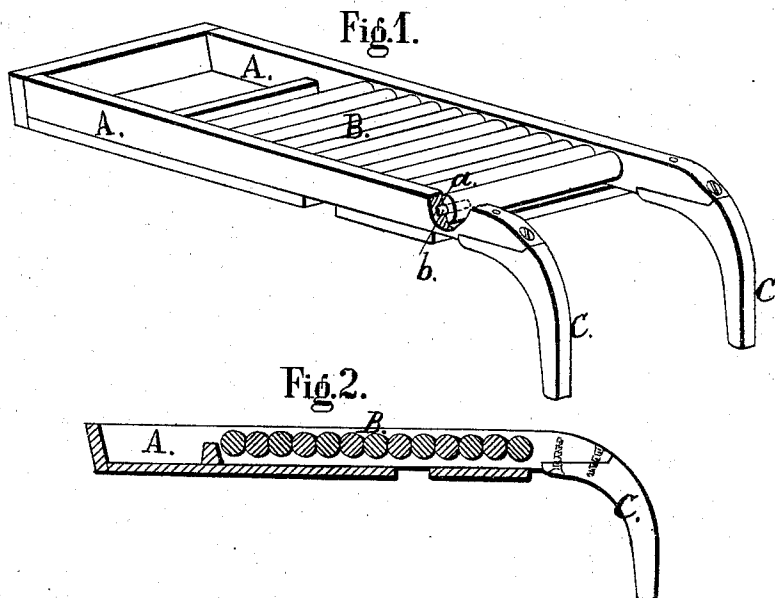


F. VOEGTLI.
Washboards.

No. 147,451.

Patented Feb. 10, 1874.



ATTEST.

W. H. Pearce
Joe Schmitt

INVENTOR.

Franz Voegtli
By Knight Bros.
Atty.

UNITED STATES PATENT OFFICE.

FRANZ VOEGTLI, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN WASH-BOARDS.

Specification forming part of Letters Patent No. **147,451**, dated February 10, 1874; application filed June 19, 1873.

To all whom it may concern:

Be it known that I, FRANZ VOEGTLI, of St. Louis, St. Louis county, Missouri, have invented an Improvement in Wash-Boards, of which the following is a specification:

My invention relates to that class of wash-boards in which the rubbing-surface consists of rollers; and my invention consists in combining with such wash-board down-curved legs to raise upward the farther end of the board and give to the clothes less inclination to descend, as the down-curved legs cause the rubbing-surface to more nearly approach to the horizontal.

Figure 1 is a perspective view of my improved wash-board. Fig. 2 is a longitudinal section of same.

A A are the side bars, having sockets *a* for the gudgeons *b* of the rollers B. The gudgeons are inserted firmly in the ends of the rollers, and turn freely in the sockets *a*. C C are legs, which are down-curved continuations of the side bars A, and whose lower ends rest in the lower corner of the tub in the same manner as the usual straight legs, but which are of such form and length to raise up the farther end of the board much higher than if the legs were straight.

With a corrugated surface or plate, like the common zinc-faced wash-board, it is considered that the straight legs resting in the lower corner of the tub, and the side bars resting on the top of the tub, results in giving to the rubbing-surface the proper inclination, because considerable downward inclination is required to overcome the great friction between this fixed surface and the clothes; but with a rubbing-surface consisting of rollers there is but a small amount of friction to be overcome, (the rollers allowing the clothes to be freely moved over them, and acting only by variation in pressure,) and the result is that there is not enough

resistance offered by the rubbing-surface to sustain the clothes when the roller-surface is used in a board with straight legs. To meet this difficulty I have curved the legs downward, as described, to raise the farther end of the board and give the proper tension on the clothes.

The advantage of a roller-surface above one of fixed ribs is great, as the frictional wear upon the clothes and misapplied labor in producing said friction are both avoided. The simple friction is held to have little or no effect in cleansing the clothes, the cleansing being accomplished by movement in the mass of clothes which causes the water to have motion therein, and this, with rollers, is had without external friction. Another advantage possessed by the roller-surface is the ease with which the dirty or greasy water may run away from the clothes. In a board with solid rubbing-surface there is no opportunity for the dirty water to run through the board, and this water remaining destroys the detergent properties of the soap.

The legs C may be made in one piece with the side bars A; but I prefer to make them of separate pieces, (firmly fixed to the said bars,) as shown, so that the grain may lie lengthwise of the pieces.

I am aware that wash-boards having a rubbing-surface consisting of rollers have heretofore been used, and I do not claim any novelty in this feature; but

What I claim as new and of my invention is—

The wash-board having rollers B and fixed down-turned legs C, substantially as shown, as a new article of manufacture.

FRANZ VOEGTLI.

Witnesses:

SAML. KNIGHT,
ROBERT BURNS.