

No. 735,801.

PATENTED AUG. 11, 1903.

J. OPP.
WASHBOARD.

APPLICATION FILED JUNE 28, 1902.

NO MODEL.

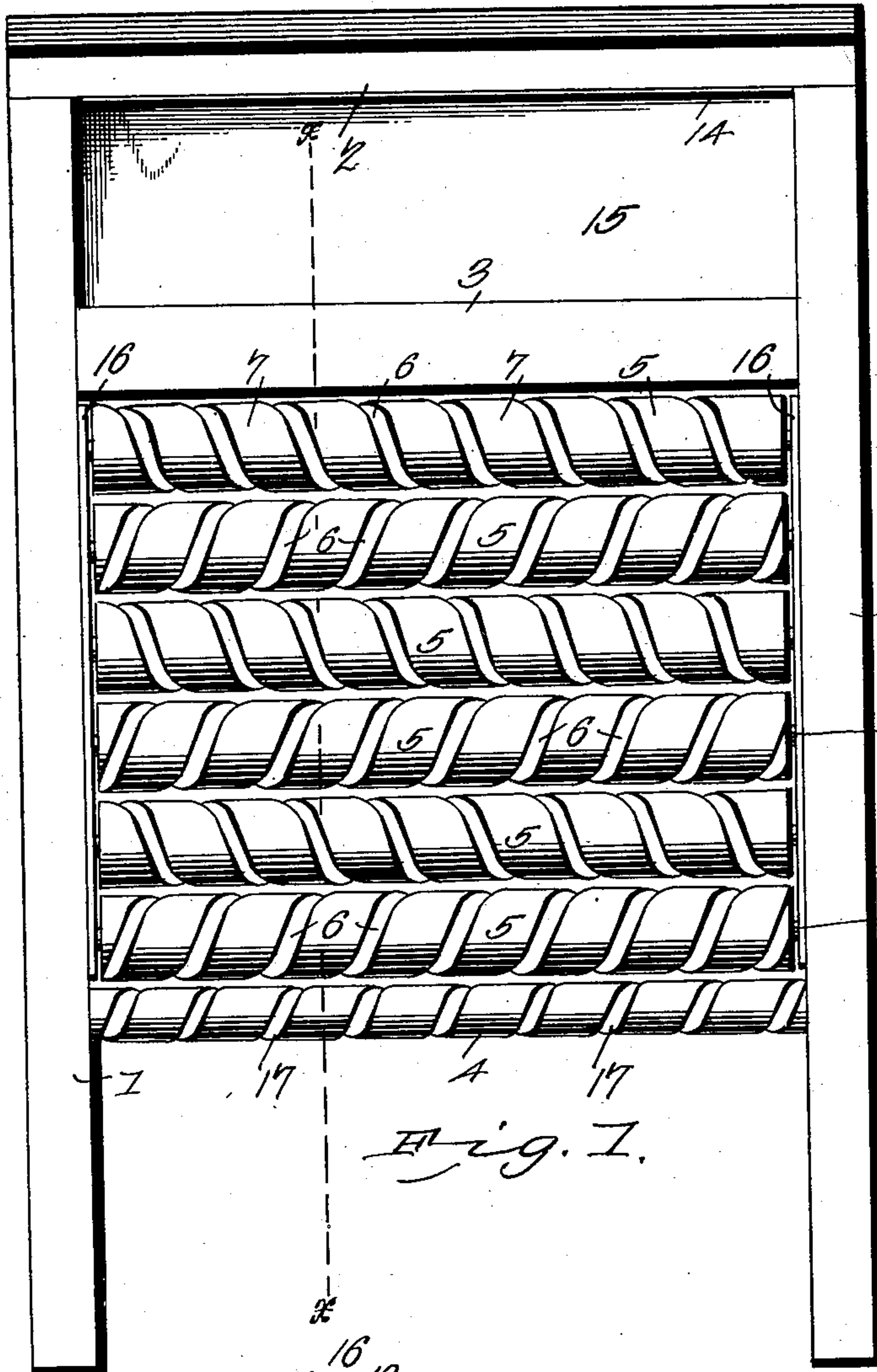


Fig. 1.

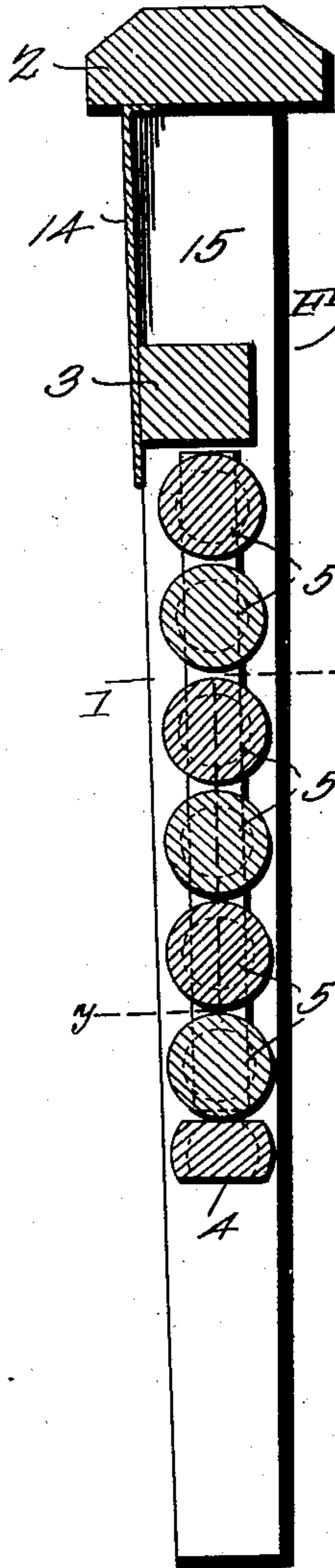


Fig. 2.

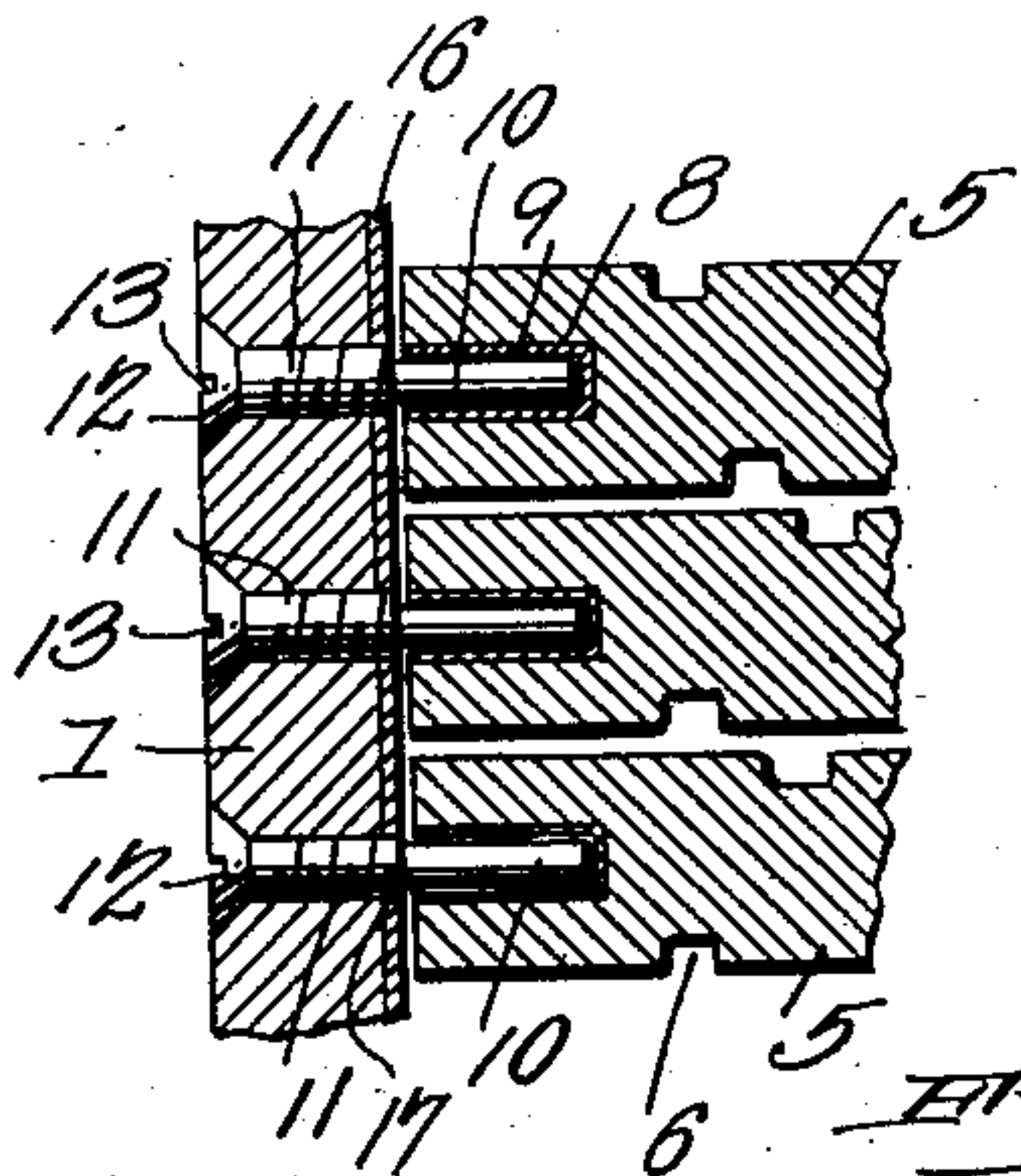


Fig. 3.

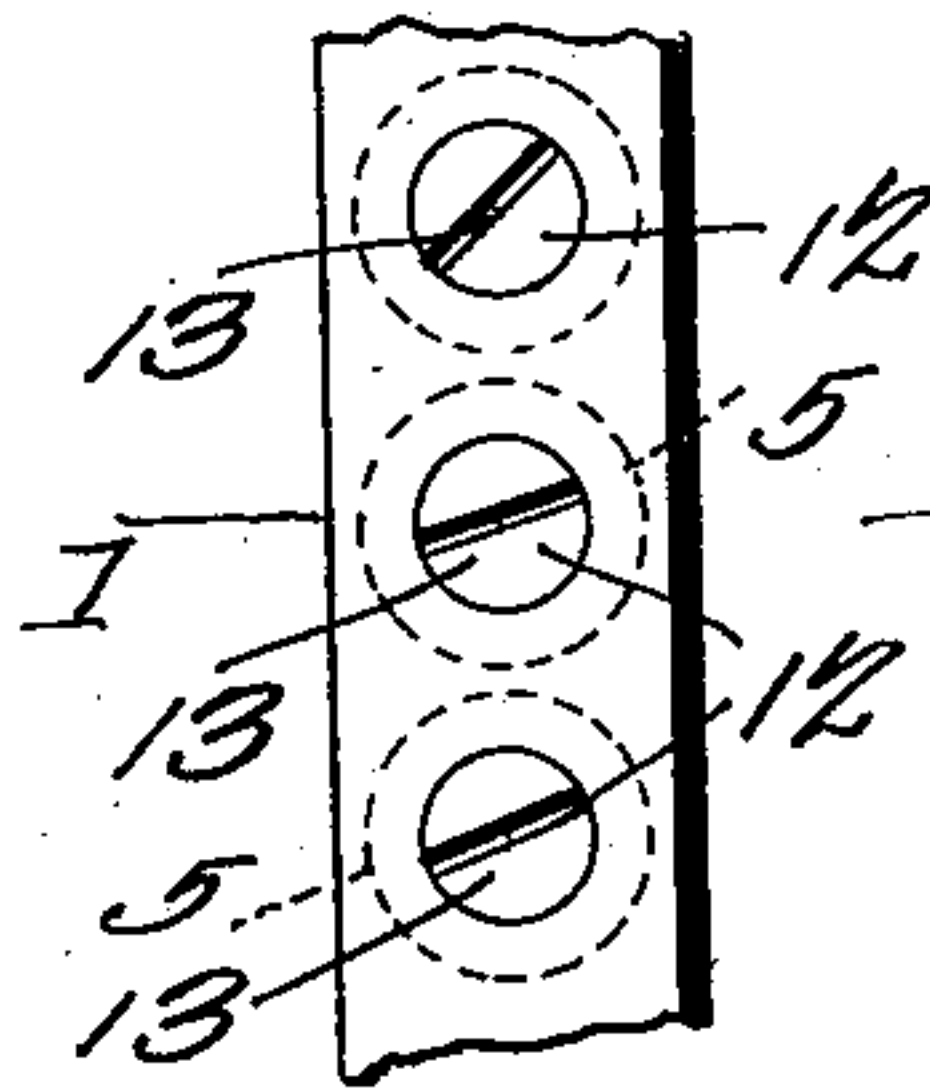


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

JACOB OPP, OF DANSVILLE, NEW YORK.

WASHBOARD.

SPECIFICATION forming part of Letters Patent No. 735,801, dated August 11, 1903.

Application filed June 28, 1902. Serial No. 113,608. (No model.)

To all whom it may concern:

Be it known that I, JACOB OPP, a citizen of the United States, residing at Dansville, in the county of Livingston and State of New York, have invented a new and useful Washboard, of which the following is a specification.

This invention relates to washboards; and it has particular reference to that class of washboards the rubbing-surface of which is formed by a series of rollers mounted revolvably in the sides of the frame of the washboard.

My invention has for its object to provide a washboard of this class having a series of spirally-grooved wooden rollers which shall possess superior advantages in point of simplicity, durability, and general efficiency, in which the several rollers shall be independently detachable, so that in the event of injury to any one of the rollers by splitting or otherwise it may be removed and replaced by a new one in a moment's time at a trifling expense, and in which in order to provide for such removal and substitution specially-constructed bearings are provided.

With these and other ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a plan view of a washboard constructed in accordance with my invention, except that in order to show the invention on a larger scale a less number of rollers has been shown than would be employed in a full-sized washboard. Fig. 2 is a longitudinal sectional view of the same, taken on the line *xx* in Fig. 1. Fig. 3 is a transverse sectional view taken on the line *yy* in Fig. 2. Fig. 4 is a detail view of the washboard.

Corresponding parts in the several figures are indicated by like characters of reference.

The frame of my improved washboard is composed of side pieces 1 1, top piece 2, and cross pieces or braces 3 and 4, the said top and cross pieces serving to connect the side pieces in such a manner as to produce a frame having the necessary characteristics of strength and rigidity. The space between

the cross-pieces 3 and 4 is filled by a series of rollers 5 5, which are made of such a length as to enable them to fit loosely between the sides of the frame. These rollers, which are preferably made of hard wood, although any other suitable material may be employed in their construction, are provided with spiral grooves 6, extending from end to end of said rollers, the said spiral grooves of alternate rollers being made alternately right and left hand, as will be plainly seen in Fig. 1 of the drawings. Regarding the construction of these grooves, it may be stated that their cross-sectional contour may be either curved or angular; but I desire it especially understood that the individual coils of said spiral grooves shall be separated by smooth ungrooved portions of greater width than the grooves, as plainly shown at 7 in Fig. 1.

The ends of the rollers are provided with axial recesses 8, in which are seated tubular bearings 9, preferably composed of short sections of brass tubing, which are held or retained frictionally in said recesses. The bearings are formed by cylindrical extensions 10 of screws 11, which are fitted at the proper points in the sides of the frame, said screws being provided with heads 12, countersunk in the sides and provided with hacks 13 to receive the point of a screw-driver, by means of which they may be removed when it shall be desired for the purpose of enabling any one or more of the rollers journaled thereon to be removed from the washboard in order to make room for new ones. The cylindrical bearings 10 may be formed by removing the threads and points from the ends of ordinary wood-screws, or especially-constructed screws may be employed when it shall be found desirable to do so.

My improved washboard may be provided with a backing, as 14, at its upper end to form a soap-receptacle 15.

I prefer to mount upon the inner sides of the side pieces 1 strips 16 of sheet metal, such as zinc, which are perforated, as at 17, for the passage of the bearing ends of the screws. The latter will thus be considerably braced and prevented from working loose in the wooden side pieces of the frame.

The lower cross-piece 4 is preferably pro-

vided with grooves or corrugations 17, corresponding with the spiral grooves in the rollers above mentioned.

5 The operation of my improved washboard will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. When the clothes that are to be cleaned are rubbed over the surface formed by the said rollers, the latter
10 will revolve in their bearings and will therefore be much less liable to injure fine fabrics than a rigid surface. I furthermore desire to invite especial attention to the fact that in the event of injury to any one of the
15 rollers composing the rubbing-surface such roller may be independently and almost instantaneously removed and a new one substituted at a trifling expense.

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

A washboard comprising a frame having

permanently-connected side pieces provided with perforations, strips of metal upon the inner sides of said side pieces, a plurality of
25 detachable rollers forming a rubbing-surface, each roller being provided at its ends with axial recesses and with tubular bearings seated in said recesses, and bearing-screws
30 engaging the sides of the frame and fitting in the perforations therein, said screws having heads countersunk in the sides and unthreaded ends extending beyond the metallic strips to engage the tubular bearings of the rollers whereby, by removing the screws at
35 the ends thereof, any one of said rollers may be detached from the frame.

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

JACOB OPP.

Witnesses:

GEO. D. L. BAILEY,
J. J. BAILEY.