

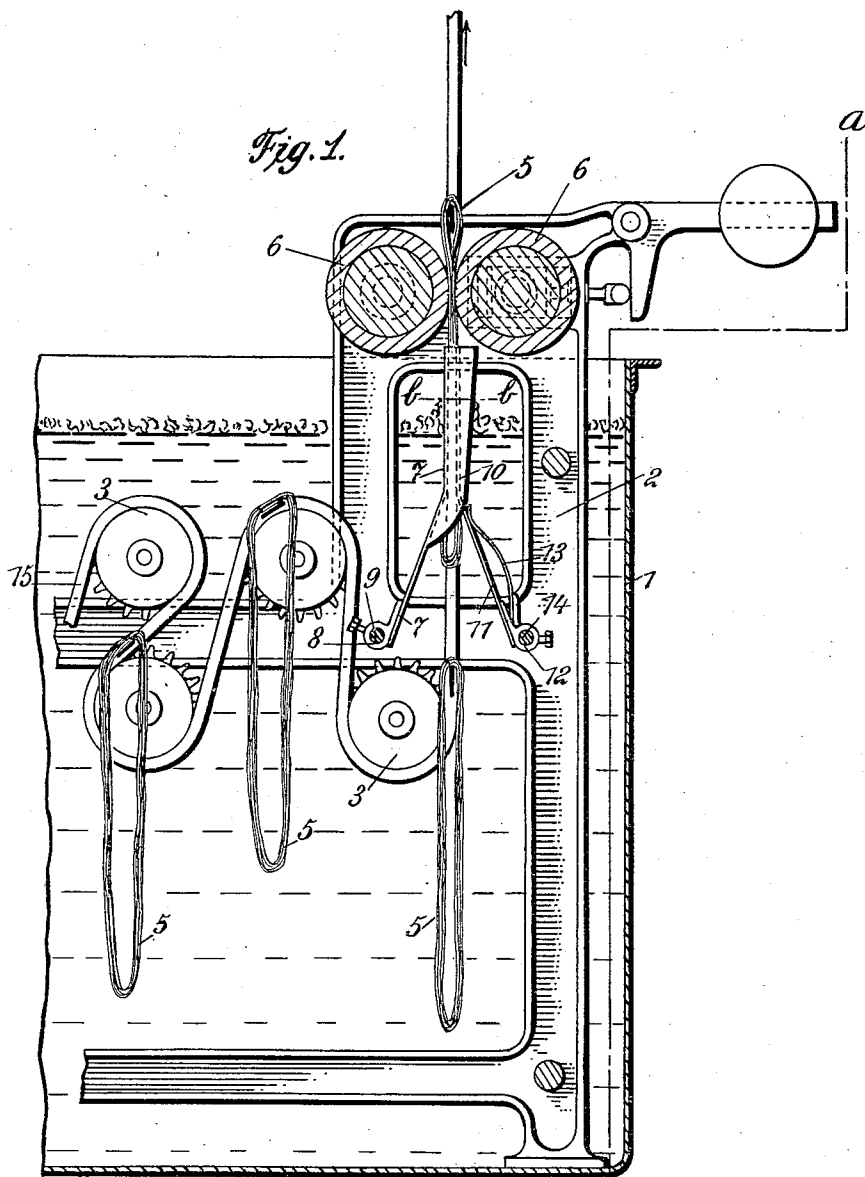
F. JAUMANDREU.
 APPARATUS FOR THE TREATMENT OF TEXTILES IN THE FORM OF THREADS, CORDS, HANKS,
 AND FABRICS.

APPLICATION FILED MAY 15, 1911.

1,017,547.

Patented Feb. 13, 1912.

2 SHEETS—SHEET 1.



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Inventor:—
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2 SHEETS—SHEET 2.

Fig. 3.

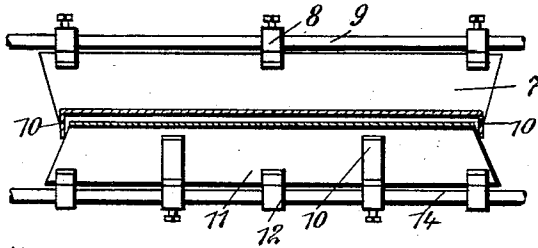
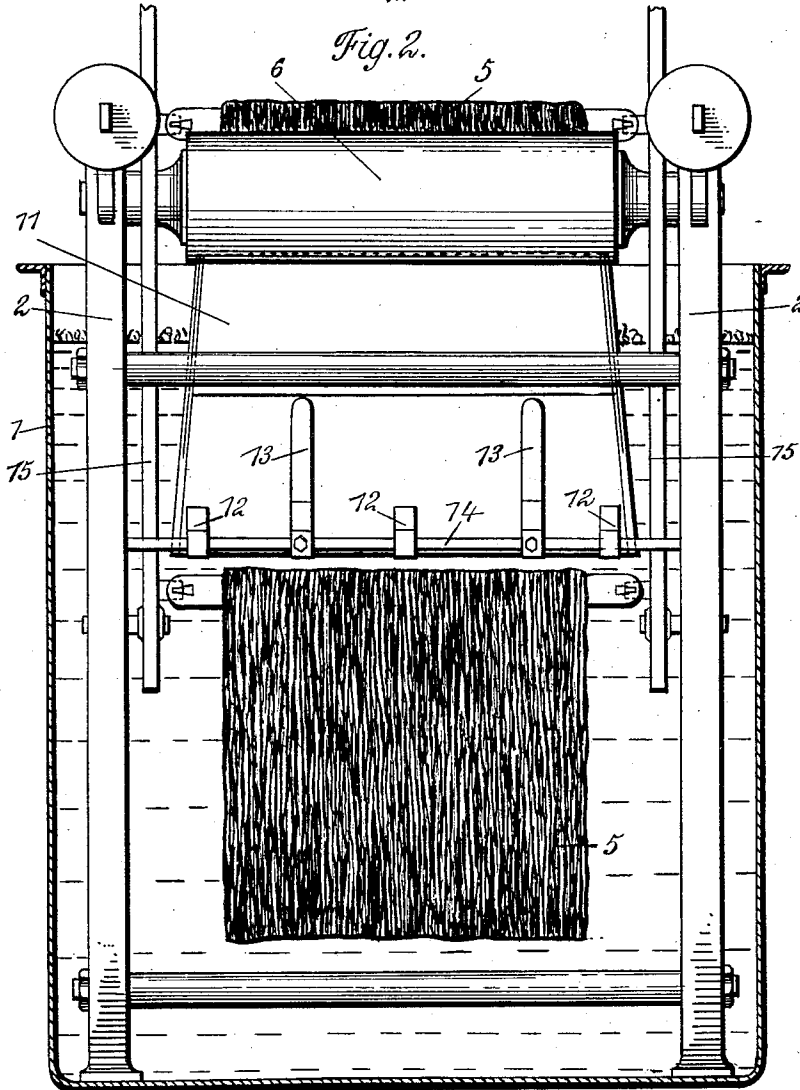


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANCISCO JAUMANDREU, OF BARCELONA, SPAIN.

APPARATUS FOR THE TREATMENT OF TEXTILES IN THE FORM OF THREADS, CORDS, HANKS, AND FABRICS.

1,017,547.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed May 15, 1911. Serial No. 627,350.

To all whom it may concern:

Be it known that I, FRANCISCO JAUMANDREU, manufacturer, a subject of the King of Spain, residing at Barcelona, Spain, have
5 invented certain new and useful Improvements in Apparatus for the Treatment of Textiles in the Form of Threads, Cords, Hanks, and Fabrics; and I do hereby declare the following to be a full, clear, and
10 exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in apparatus for the treatment of textiles in
15 the form of threads, cords, hanks and fabrics.

In the operations of dyeing, bleaching, washing and the like in which textiles are submitted to the action of liquids, there collect
20 upon the surface of the liquid scums and impurities which soil the textile fibers and which result in the detriment of the excellence and the efficiency of the operations which are rendered imperfect in spite of
25 the greatest care exercised in their execution. These inconveniences occur in practice whatever be the mode of conducting the textile materials through the bath, either in the form of thread, wick, string,
30 cord, fabrics and hanks, either loose or linked up into groups or forming a cord. These inconveniences are avoided by means of the present invention, which consists in applying to the baths a chute, a plate or
35 wall covering said chute, and leaving between them the necessary space for the textiles to pass through. The chute and the cover are arranged vertically at the point of exit of the textile materials, so that a portion
40 of this chute dips into the liquid to a depth such that its end shall not be reached by the scums and impurities which accumulate upon the surface. The other part of the chute remains out of the liquid to such
45 a height that it is not accessible by the scum. One of the walls or both walls of this chute may be movable and worked by springs which tend to press them constantly against the textiles which leave the bath so as to
50 prevent the access of the scums and impurities into the chute.

The drawing annexed to this specification represents the necessary portion of a bath for conducting hanks in series and provided with the improvements which consti-

tute the subject matter of this patent application.

Figure 1 is a longitudinal section. Fig. 2 a section along the broken line *a—a* of Fig. 1, and Fig. 3 a transverse section of
60 the chute on the line *b—b* of Fig. 1.

The vat 1 may be of any suitable form and the hanks may be conducted through the bath by any arrangement. In the example shown in the drawing, the hanks are
65 conducted in series by chains 15 guided by rollers 3 placed in the interior of the bath. At the end corresponding to the one at which the hanks 5 leave the bath, there is placed vertically a chute formed by a bot-
70 tom wall 7, end walls 10 and a front wall 11. The lower end of this chute extends into the liquid and the upper end remains out of it. The hanks 5 are forced to pass
75 through this chute when they leave the bath. The lower mouth of the chute is enlarged to facilitate the entrance of the hanks and to prevent any hindrance to their progress. The walls of this chute are upheld
80 by supports 8 and 12 fixed to transverse bars 9 and 14 placed between the two frames 2 which carry the mechanism for conducting the hanks.

In the example shown in the drawing, the wall 7 of the chute with the side ledges 10,
85 is fixed while the wall 11 is movable and bears constantly against the wall 7 by the action of springs 13. By means of this arrangement the wall 11 is always thrust
90 against the wall 7 or against the hanks 90 which pass through the chute, thus leaving them a very narrow passage and preventing the scum and impurities on the surface of the liquid from penetrating into the chute. This produces at the same time a preliminary
95 draining of the hanks. The wall 7 might be movable like the wall 11.

Whether the walls of the chute be fixed or movable, the hanks in emerging from the chute, pass through the draining rollers 6,
100 and are then taken to any desired places to there undergo the necessary subsequent operations.

According to the arrangement given to the frame 2 which carries the mechanism
105 for conducting the hanks, the manner of fixing the chute to the vat will also vary.

The arrangement of the chute is similar to that described in cases where instead of
110 treating hanks, threads, cords, or hanks in

the form of chains or cords are treated, as well as in cases where detached hanks are manipulated, the above being made to leave the chute by any suitable mechanism.

5 Having thus described my invention, I declare that what I claim and desire to secure by Letters Patent, is:—

1. In apparatus for treating textiles with liquid, the combination of a chute vertically
10 placed at the point of exit of the textiles from the liquid, a plate or wall covering said chute, and leaving the necessary space for the passage of the textiles, means for causing the hanks to pass into the chute when
15 leaving the liquid, means for holding the chute and the cover vertically with the lower mouth dipped into the liquid and the upper one remaining out of the liquid, so as to prevent the entrance of scums and impurities
20 accumulated on the surface of the liquid; substantially as described.

2. In apparatus for treating textiles with liquids, the combination of a chute vertically placed at the point of exit of the textiles
25 from the liquid, means for causing the textiles to pass into the chute on leaving the liquid, in said chute a movable wall or cover, acted upon by springs which tend to push it constantly against the other wall or

against the textiles which pass through the chute, and means for vertically holding the chute and the cover, so that the lower mouth dips into the liquid and the upper mouth remains out of the same, in order to prevent the entrance of scums and impurities which
35 accumulate on the surface of the liquid; substantially as described.

3. In apparatus for treating textiles with liquids, the combination of a chute vertically placed at the point of exit of the textiles, a
40 lower bar on which the chute is fixed, a second lower bar parallel to the former, on which is hinged the movable wall or cover of the chute and on which are fixed the springs of the cover, so that the chute leaves
45 only the necessary space for the textiles to pass out of the liquid, and has its lower mouth dipped into the liquid while the upper one remains out of the same, in order to avoid contact of the textiles with the scums
50 and impurities existing on the surface of the liquid; substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses.

FRANCISCO JAUMANDREU.

Witnesses:

CONSTANTINO SUPERCID,
WILL F. TAKE.