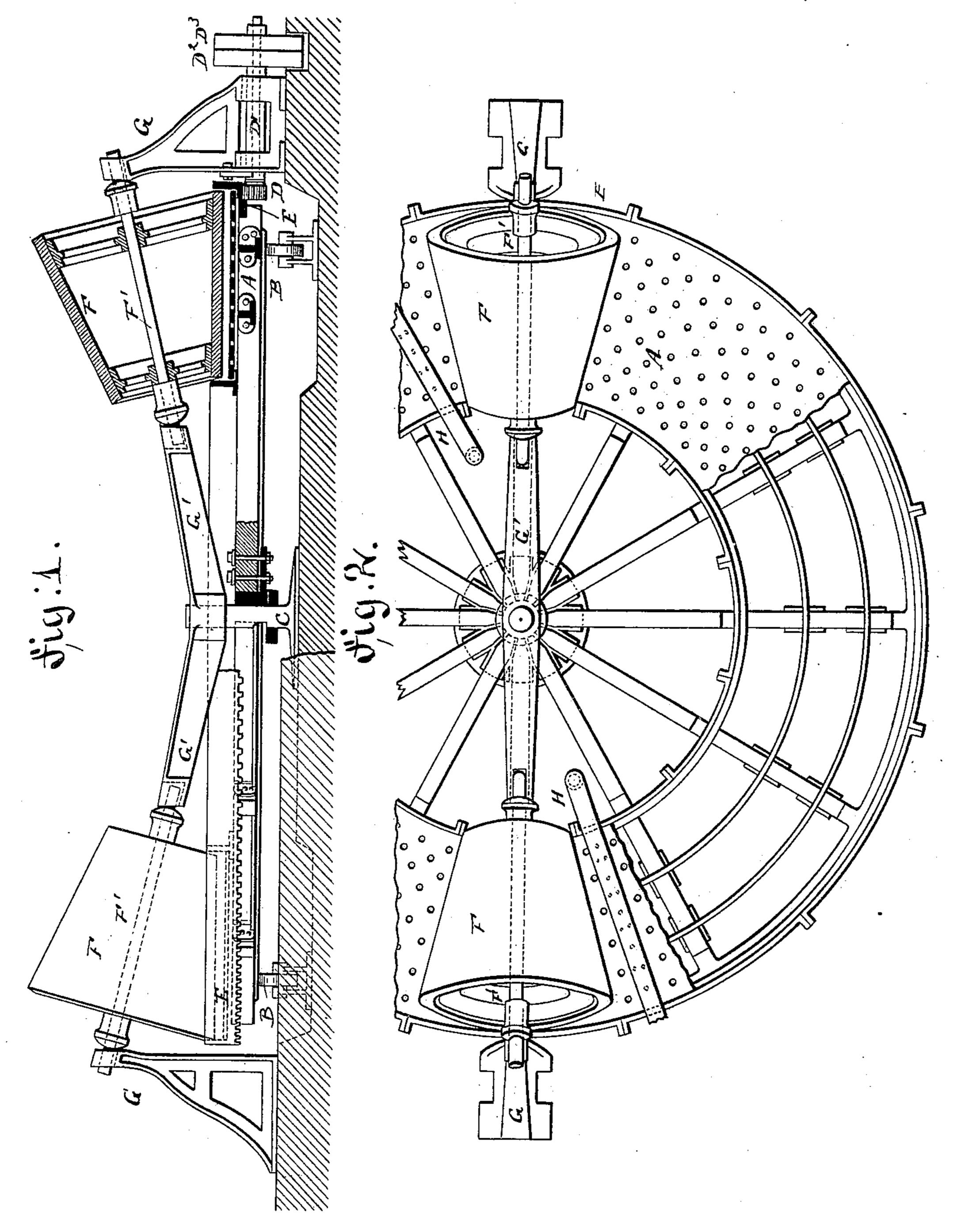
(No Model.)

## G. JAGENBURG.

WASHING MACHINE.

No. 390,862.

Patented Oct. 9, 1888.



WITNESSES:

Lidnen Parame.

Inventor.

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BY Joseph Raegener.

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## United States Patent Office.

## GUSTAV JAGENBURG, OF RYDBOHOLM, SWEDEN.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 390,862, dated October 9, 1888.

Application filed October 20, 1887. Serial No. 252,880. (No model.) Patented in Sweden November 23, 1886, No. 827; in England November 30, 1886, No. 15,669; in Norway March 23, 1887, No. 311; in Italy April 16, 1887, No. 21,380; in France September 23, 1887, No. 186,028, and in Belgium March 31, 1888, No. 81,262.

To all whom it may concern:

Be it known that I, Gustav Jagenburg, a subject of the King of Sweden, residing at the city of Rydboholm, in the Kingdom of Sweden, 5 have invented certain new and useful Improvements in Washing Machines for Loose Cotton and other Vegetable Fibers, (for which Letters Patent heretofore were granted to me by the governments of Belgium, dated March 10 31, 1888, No. 81,262; England, dated November 30, 1886, No. 15,669; France, dated September 23, 1887, No. 186,028; Italy, dated April 16,1887, No. 21,380; Sweden, dated November 23, 1886, No. 827, and Norway, dated 15 March 23, 1887, No. 311,) of which the following is a specification.

Heretofore it has been customary to wash loose cotton or other like fibrous materials in tanks provided with rotating or vibrating 20 forks or agitators, which operation caused felting of the fibrous material, rendering it impossible to card it properly and spin it into a uni-

form thread.

The object of my invention is to provide a 25 new and improved machine for washing loose cotton and other like fibrous material, which machine is so constructed that the fibers need not change their positions on the apparatus, and thus cannot become entangled and felted 30 together.

The invention consists in the combination, with a perforated annular carriage mounted to rotate around a central pivot, of pressurerollers resting on said annular carriage and 35 water - distributing pipes adjacent to said

rollers.

The invention also consists in the construction and combination of parts and details, as will be fully described and set forth herein-40 after, and then pointed out in the claims.

In the accompanying drawings, Figure 1 is a cross-sectional view of my improved machine for washing loose cotton and like fibrous material, parts being in elevation. Fig. 2 is a 45 plan view of the same, parts being broken out.

Similar letters of reference indicate corre-

sponding parts.

The annular perforated platform or carriage A is mounted to run on the rollers B and to

turn on the central pivot, C. The carriage or 50 platform is provided along its edge, on the under side, with the circular rack E, engaging with the pinion D on one end of the shaft D', said shaft being provided on the other end with the tight and loose belt-pulleys D<sup>2</sup> D<sup>3</sup>. 55 Two opposite inclined arms, G', are secured on the upper end of the central pivot, C, and in the ends of said arms, and in bearings in the upper ends of upright frames G at the sides of the carriages A, the inclined shafts F' are 60 mounted in such a manner that they can give upward a short distance—that is, they can move up or down a short distance in their bearings. On each shaft F' a conical roller, F, is rigidly mounted in such a manner that it 65 is above the perforated part of the annular carriage or platform A. At one side of each roller F a perforated or slotted water pipe, H, extends over the perforated part of the platform.

The annular platform is rotated in the direction of the arrow x', and the loose cotton or other material to be washed is placed upon the perforated part of the platform. The water issuing from the pipes H wets the said cotton, 75 and the same is carried by the rotating platform under the rollers F and the water pressed out, which water passes through the perforations in the platform, and this is repeated until the cotton has been washed sufficiently.

If desired, the platform can be made straight and mounted to reciprocate instead of rotate, and the conical rollers may be replaced by cylindrical rollers.

The rollers F can at all times exert a press- 85 ure on the material on the carriage, as the said rollers can automatically adjust themselves according to the thickness of the layer of material on the platform.

Having thus described my invention, I claim 90 as new and desire to secure by Letters Patent—

1. In an apparatus for washing loose cotton or like fibrous material, the combination of a rotary perforated carriage for receiving the material to be washed, rollers for supporting 95 said carriage at the rim, a rack on the under side of the carriage, a pinion engaged with said rack, conical pressure-rollers above the

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carriage, and a perforated pipe adjacent to said rollers, substantially as shown and described.

2. In an apparatus for washing loose cotton or other fibrous material, the combination, with an annular platform or carriage mounted to run on rollers at its rim and to turn on a central pivot, of inclined shafts extending across the said annular carriage and mounted in bear-to ings, in which said shaft can give upward, conical rollers mounted on the inclined shafts,

and a perforated water-pipe adjacent to each roller, substantially as herein shown and described.

In testimony whereof I have signed my name 15 to this specification in the presence of two subscribing witnesses.

GUSTAV JAGENBURG.

Witnesses:

NERE A. ELFWING, AXEL LJÖO, Bryggmästare.