Nov. 27, 1928. 1,693,089

V. LISTER ET AL

ROTARY WASHING MACHINE

Filed April 8, 1926 2 Sheets-Sheet 1

Fig. 1.

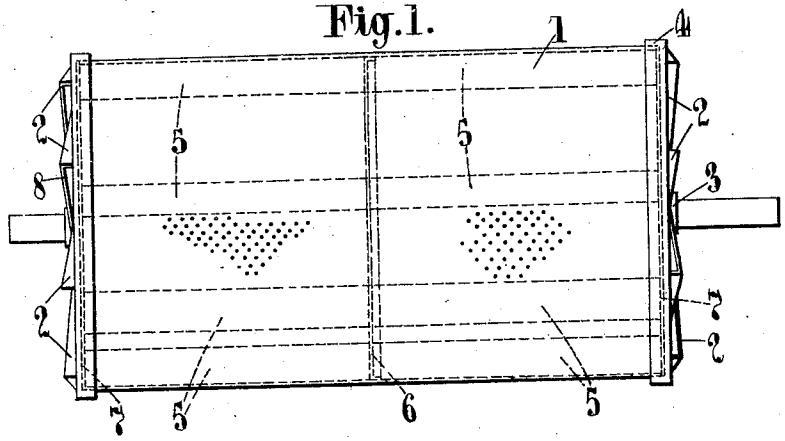


Fig. 2.

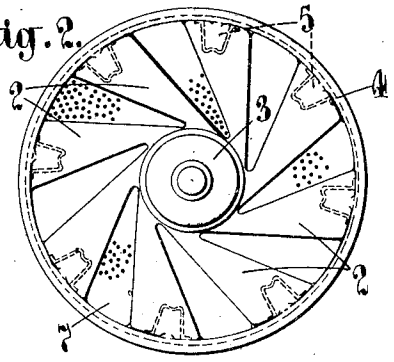
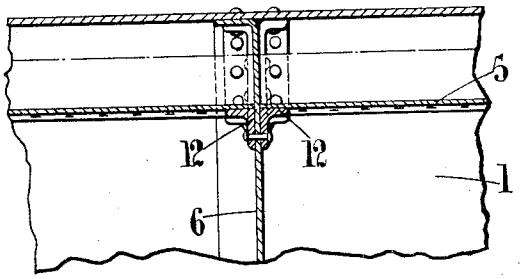


Fig. 5.



INVENTORS
Victor Lister and
Samuel William Lister
BY
Robert F. Phillips
ATTORNEY

Nov. 27, 1928. 1,693,089

V. LISTER ET AL

ROTARY WASHING MACHINE

Filed April 8, 1926 2 Sheets-Sheet 2

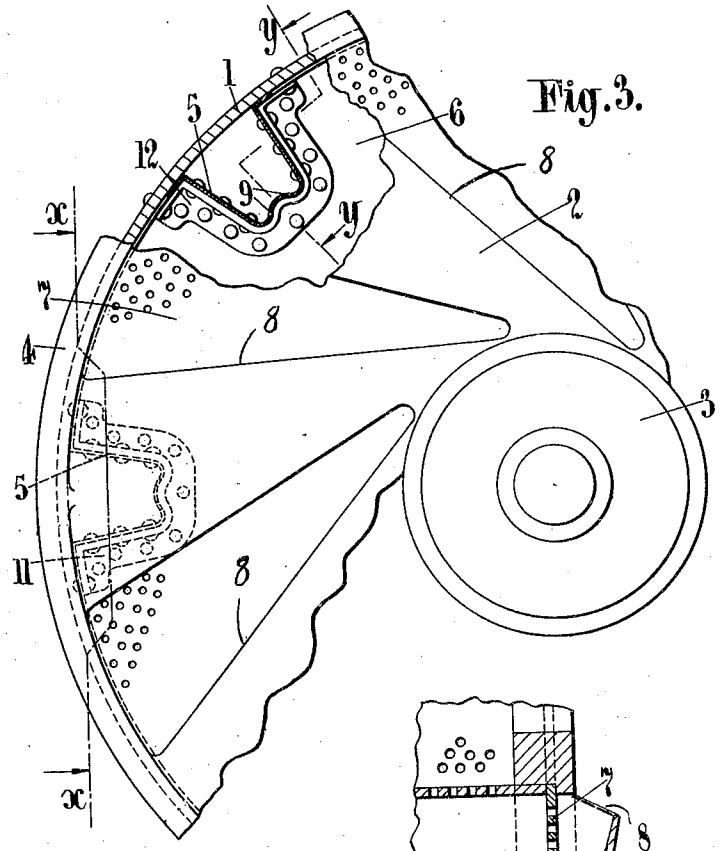


Fig. 3.

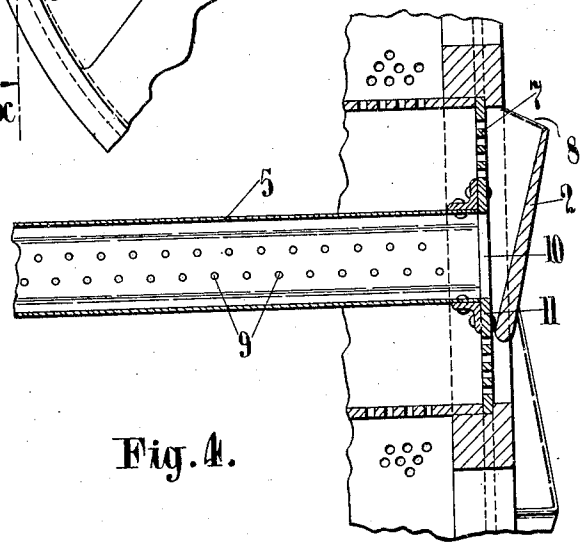


Fig. 4.

INVENTORS.
Victor Lister and
Samuel William Lister.
BY
Robert B. Phillips.
ATTORNEY

Patented Nov. 27, 1928. 1,693,089

UNITED STATES PATENT OFFICE.

VICTOR LISTER AND SAMUEL WILLIAM LISTER, OF WOOLWICH, ENGLAND.

ROTARY WASHING MACHINE.

Application filed April 8, 1926, Serial No. 100,687, and in Great Britain May 6, 1925.

This invention relates to rotary washing machines in which an inner cylinder provided with a plurality of longitudinally disposed beaters or lifters is mounted to rotate in an outer casing and is furnished at each end with a plurality of angularly disposed blades shaped and disposed to operate as buckets by means of which the water contained in the outer casing is lifted and forced through orifices in the end plates of the cylinder, and it has for its object to increase the circulation of water through and within the inner cylinder.

We attain this end by the construction shown in the accompanying drawings in which Figure 1 is a view in front elevation of the inner cylinder; Figure 2 is an end view of said cylinder; Figure 3 is a broken view on an enlarged scale, partly in section, showing the end of the inner cylinder; Figure 4 is a broken view in longitudinal section on line *x*—*x* Figure 3; and Figure 5 is a broken view in longitudinal section on line *y*—*y* Figure 3 through one of the beaters.

Throughout the views similar parts are marked with like numerals of reference.

The inner cylinder 1 which is perforated both in its circumferential wall and its end plates 7 is provided at each end with a plurality of lifting buckets 2 which are arranged firstly so that they be tangential with respect to a circle of a lesser radius than the cylinder, secondly so that during rotation of the cylinder their inner ends are radially in advance of their outer ends and thirdly so that they extend from the circumferential wall of the cylinder to a point adjacent to the centre of the cylinder. By this construction the inner part of the top edge 8 of each of the buckets 2 is always in advance of the outer part of said edge so that the water picked up is carried to a greater height during the rotation of the cylinder and thus a greater volume is caused to pass into the hollow beaters.

The beaters 5 which are suitably mounted in the interior of the cylinder are of a U or like shape in cross-section and in the end plates 7 of the cylinder at the points adjacent to the ends of said beaters are openings 10 which register with the buckets and allow the water in said buckets to pass freely into said beaters. These beaters are provided with a plurality of perforations 9 which will allow the water to pass from them into the cylinder as it revolves.

The beaters 5 are supported at their ends by means of the brackets 11 riveted to the cylinder 1 and to the beaters 5 and are further supported and secured at the centre by similarly shaped brackets 12 riveted to the cylinder 1, beaters 5 and partition 6.

The buckets at one end of the cylinder are as usual arranged to lie in the opposite direction to those at the other end so that those at one end pick up the water and force it into the cylinder while those at the other end operate to exhaust water or draw out the water from the other end of the cylinder.

What we claim is:—

For a rotary washing machine a rotatable perforated cylinder adapted to receive the articles to be treated, a plurality of hollow beaters longitudinally arranged on the interior wall of said cylinder and provided with orifices radially arranged relative to said cylinder, two sets of V-shaped buckets one on each end of said cylinder which are arranged in opposite relation to one another and tangentially with respect to a circle of a lesser radius than the cylinder the arangement being such that the buckets extend from the circumferential wall of the cylinder to a point adjacent to the centre of the cylinder and that during the rotation of the cylinder the inner ends of the buckets are in advance of their outer ends, and openings in the ends of said cylinder which register with said hollow beaters.

VICTOR LISTER.
SAMUEL WILLIAM LISTER.