(No Model.)

R. DE W. HULBERT.

WASHING MACHINE.

No. 483,721. Patented Oct. 4, 1892.

Fig. 3.

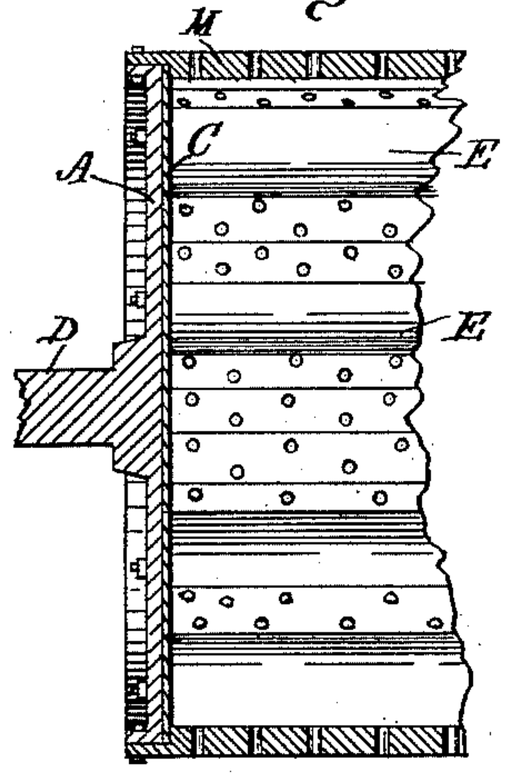


Fig. 4.

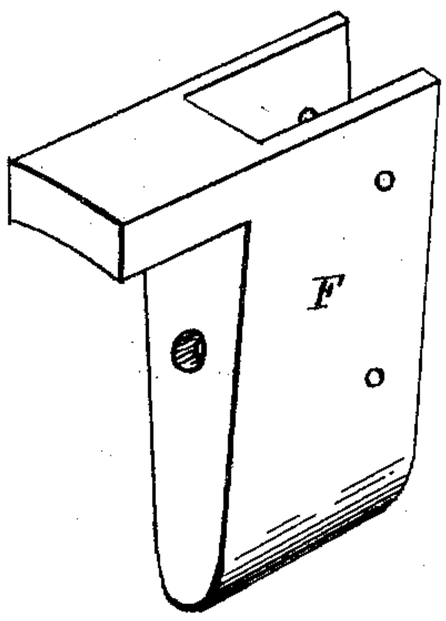


Fig. 2.

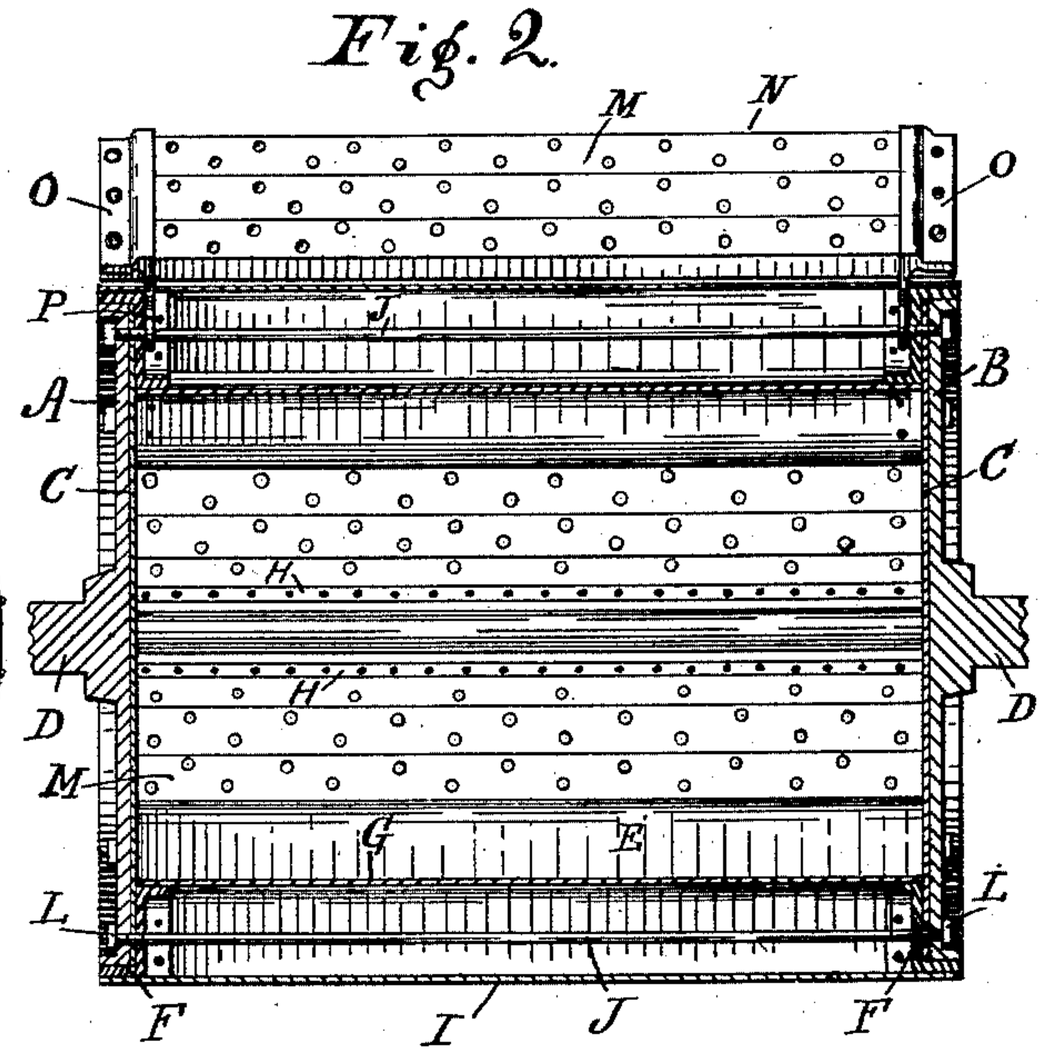
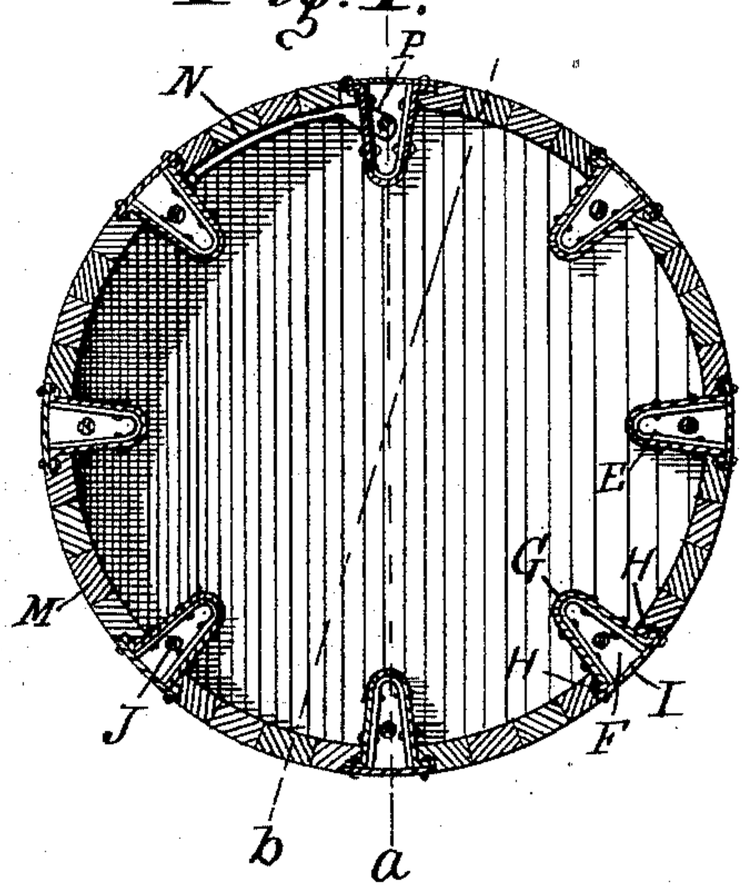


Fig. 1.



WITNESSES:

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RALPH DE W. HULBERT, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF TO FRED B. COMSTOCK, OF SAME PLACE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 483,721, dated October 4, 1892.

Application filed December 16, 1891. Serial No. 415,215. (No model.)

To all whom it may concern:

Be it known that I, RALPH DE W. HULBERT, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Washing-Machine Cylinders, of which the following is a specification.

My invention relates to an improvement in the washing-cylinder of that class of washing-machines which are operated by steam-power; and it consists of a hollow cylinder having perforated walls and mounted within a cylindrical tub so as to rotate therein. Heretofore washing-cylinders of this class have been constructed entirely of wood or entirely of metal. It is found in practice that cylinders having a wooden periphery are less destructive to clothing than those made entirely of metal.

The object of my improvement is to provide a washing-cylinder of the class described composed of a metallic frame and wooden staves arranged in such a manner as to provide all the advantages of a wooden periphery and a strong metallic frame.

The accompanying drawings illustrate my invention.

Figure 1 represents a transverse section of the cylinder, showing the door therein closed. Fig. 2 represents a longitudinal section at *a*, Fig. 1, showing the door open. Fig. 3 represents a partial longitudinal section at *b*, Fig. 1. Fig. 4 represents on a larger scale a view in perspective of one of the castings forming the ends of the cylinder-ribs.

In the drawings, A and B represent two circular plates of cast-iron, forming the heads of the cylinder. Plates A and B are each provided on their inner sides with a coating C of brass or copper or like material not liable to rust. The outer surfaces of plates A and B are each provided with a central cylindrical extension D, forming axles, which are mounted in suitable bearings in the ends of the cylindrical tub (not shown) in the usual well-known manner. Plates A and B are connected by a series of longitudinal ribs E, arranged at regular intervals around the peripheries of the heads and projecting inward. Said ribs are constructed in the following manner: A pair of castings F F, like that shown in Fig. 4, are riveted to the opposite ends of a piece of sheet metal G, preferably of brass, bent to form a hollow rib conforming to the contour of the pieces F and inclosing them on all sides but one of their outline. The edges of pieces G are turned outward to form flanges H H, and to said flanges the edges of a flat strip I of sheet metal are riveted, thus completely inclosing the castings F and forming a hollow sheet-metal rib having closed ends and of great strength and lightness. Each of the ribs thus formed is secured to the heads A and B by a single bolt J, passing longitudinally through the rib and through both of the heads, said bolt being provided at the ends with suitable nuts L L or a head and nut whereby the rib is strongly clamped between the heads. A strong metallic frame is thus formed to which wooden staves may be removably secured.

The flat strips I form portions of the outer surfaces of the cylinder, and the intervening spaces are filled by perforated wooden staves M, which are bolted at each end to the peripheries of the heads A and B.

For the purpose of gaining access to the interior of the cylinder a door N is formed between two of the ribs by bolting the wooden staves M to a pair of metallic segments O, which are provided with an arm P, which is hinged upon the bolt J, which secures the rib in place, a suitable slot being made in the side of the rib to permit the swinging of the arm. It will be observed that the inner rounded edges of the ribs project radially inward from the inner surfaces of the wooden staves, and thus form efficient rubbing-surfaces which materially aid in the process of washing.

By the construction above described the metallic ends and ribs form a practically-indestructible frame for the washing-cylinder, which is completed by the wooden staves, which may be readily replaced when worn out.

I claim as my invention—

In a washing-machine cylinder, the hollow metallic rib consisting of the pair of castings F, forming the ends thereof, the sheet-metal strip G, bent to inclose said castings and provided with the flanges H H, and the flat metallic strips I, all riveted together, substantially as set forth.

RALPH DE W. HULBERT.

Witnesses:

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