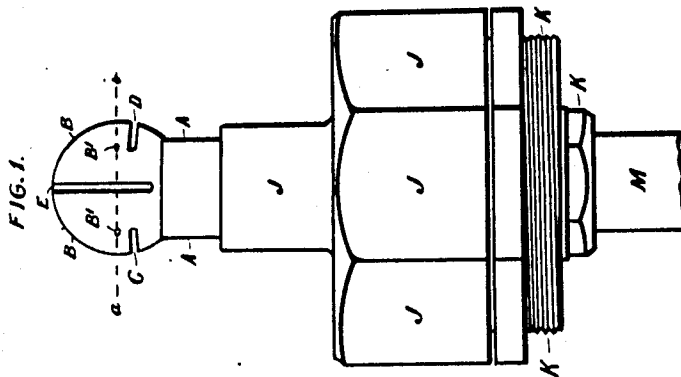
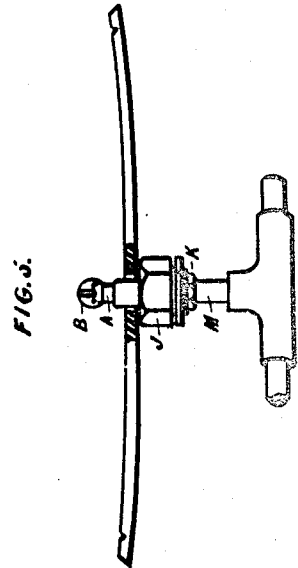
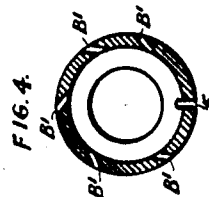
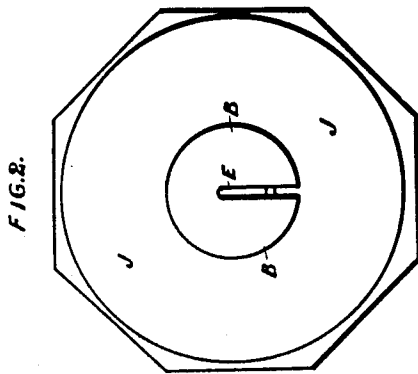
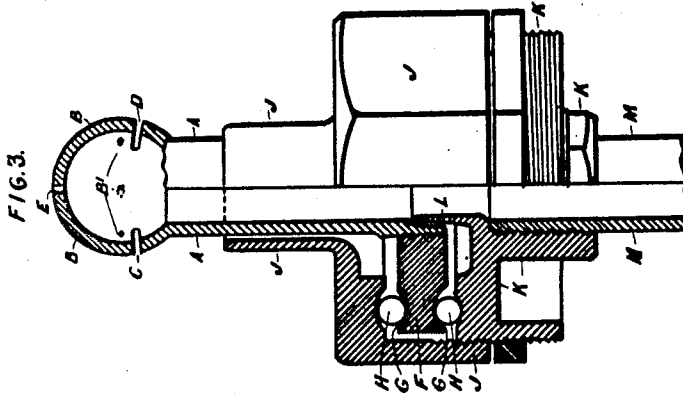


J. F. BELL.
MACHINE FOR WASHING CASKS AND THE LIKE.
APPLICATION FILED JAN. 6, 1914.

1,151,334.

Patented Aug. 24, 1915.



WITNESSES:

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MACHINE FOR WASHING CASKS AND THE LIKE.

1,151,334.

Specification of Letters Patent.

Patented Aug. 24, 1915.

Application filed January 6, 1914. Serial No. 810,568.

To all whom it may concern:

Be it known that I, JOHN FORBES BELL, a subject of the King of Great Britain and Ireland, residing at Craigmillar, Edinburgh, Scotland, have invented new and useful Improvements in or Relating to Machines for Washing Casks and the like, of which the following is a specification.

My said invention relates to machines for washing casks and the like, and has for its object to provide such machines with an improved nozzle whereby a thorough cleansing is effected, as every part of the cask is subjected to the action of the cleansing fluid. The nozzle is, as usual, made so that it can be readily coupled to, or detached from, the steam and hot water supply, and the nozzle is constructed so that it is free to rotate, and to facilitate rotation it may be carried in ball bearings. The end of the nozzle is preferably made in the form of a sphere, and has formed in it a number of angular driving holes or apertures, the holes or apertures on one side of the sphere being inclined or facing in the opposite direction to those on the other side.

According to my invention there is arranged in combination with the angular driving apertures a narrow elongated slit, or slits, formed in and radiating directly from the center of the sphere, so that a film, or films, of fluid may be projected for the purpose of thoroughly cleansing the cask.

In order that my said invention and the manner of performing the same may be properly understood I hereunto append a sheet of explanatory drawings to be hereinafter referred to in describing my invention.

Figures 1, 2 and 3, are, respectively, an elevation, a plan, and a sectional elevation of the improved nozzle. Fig. 4, is a horizontal section on the line *a-b*, of Fig. 1. Fig. 5, is a general view.

In these drawings the same reference letters are used to mark the same or like parts wherever they are repeated.

As shown in the drawings the head of the nozzle A, is made in the form of a sphere B, provided with a number of angularly disposed holes B', and elongated slits, C, D,

E. The nozzle A, is screwed into a disk F, provided with ball races G, and balls H, to facilitate the rotation of the nozzle A. The disk F, and a part of the nozzle A, are arranged within a casing J, the lower part K, of which is removable, and a projecting part L, thereon extends within the lower end of the nozzle A. A supply pipe M, is detachably fitted to the lower part K, of the casing J.

In operation the action of the nozzle is as follows:—When steam or hot water, or steam and hot water, is admitted by the pipe M, it passes up the nozzle A, and is partly ejected from the angularly disposed holes B', thus causing the nozzle to revolve in the opposite direction, the speed varying according to the angular inclination of the holes and the pressure of the steam or water. At the same time steam or hot water, or steam and hot water, is ejected directly from the center of the nozzle through the slits C, D, E. By this means the cleansing operation is effected in a simple, efficient and expeditious manner, as the cleansing fluid issues in the form of a film, or films, straight from the center of the nozzle, and with great force impinges directly on and uniformly over the whole internal surface of the cask or other vessel. The nozzle need not necessarily terminate in the form of a sphere.

What I claim is:—

In a device for cleaning casks and the like, in combination, a casing adapted to be attached to a source of fluid supply and comprising upper and lower portions detachably secured to each other, an annular member rotatably mounted within said casing, balls interposed between said annular member and said upper and lower portions of the casing, and a nozzle secured to said annular member and rotating therewith, said nozzle extending through said upper portion of the casing and having the lower end thereof formed with an annular internal recess, an upwardly extending flange on said lower portion of the casing extending into said recess to convey the fluid directly into the nozzle and to form a substantially tight

joint to prevent the fluid from entering the ball-race between said upper and lower portions of the casing, said upper portion of the casing forming a support for the cask while being washed, and a spraying head formed on the upper end of said nozzle.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

JOHN FORBES BELL.

Witnesses:

GEO. PATTERSON,
GEDDES WHITELAW.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."