J. A. POPLIN.

SHOE FOR BUR MILLS.

APPLICATION FILED MAR. 18, 1914.

1,131,548. Patented Mar. 9, 1915.

Fig. 1.

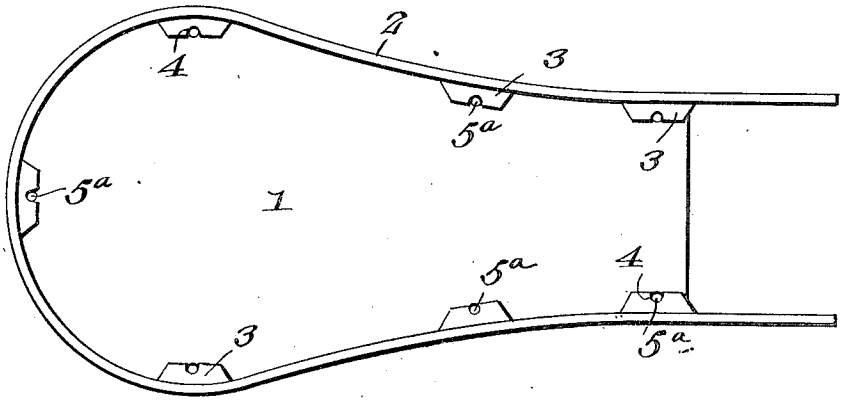


Fig. 2.

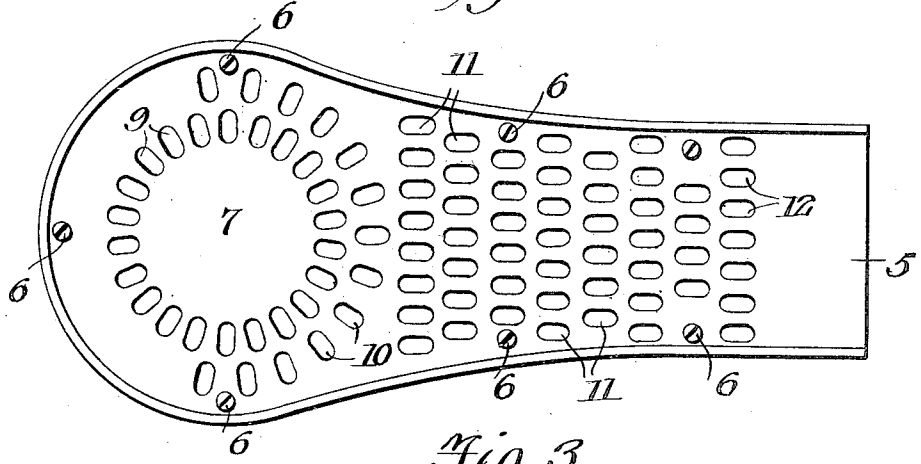
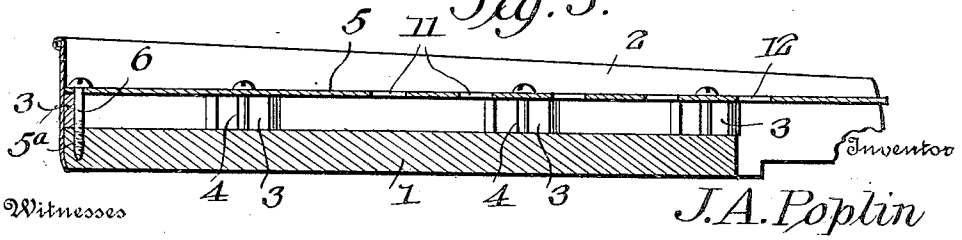


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES A. POPLIN, OF RONDA, NORTH CAROLINA, ASSIGNOR TO WILLIAMS MILL MANUFACTURING COMPANY, INC., OF RONDA, NORTH CAROLINA, A CORPORATION OF NORTH CAROLINA.

SHOE FOR BUR-MILLS.

1,131,548. Specification of Letters Patent. Patented Mar. 9, 1915.

Application filed March 18, 1914. Serial No. 825,562.

To all whom it may concern:

Be it known that I, JAMES A. POPLIN, a citizen of the United States, residing at Ronda, in the county of Wilkes and State of North Carolina, have invented new and useful Improvements in Shoes for Bur-Mills, of which the following is a specification.

The present invention relates to a shoe or screen device to be used in connection with bur corn mills.

The object of the invention is to simplify and improve the existing art by providing an article of this class which is simple in construction, cheap to manufacture and which will efficiently separate the litter or trashy particles as well as the coarser from the finer material, so that the finished product will be of the highest grade.

With the above objects in view and others which will appear as the nature of the invention is more fully understood, the same consists in the novel construction, combination and arrangement of parts set forth in the following specification and falling within the scope of the appended claim.

In the drawing: Figure 1 is a plan view of the shoe with the screen plate removed, Fig. 2 is a similar view of the complete shoe, and Fig. 3 is a central longitudinal sectional view through the shoe shown in Fig. 2.

Referring now to the drawings, 1 designates the body of the shoe, which may be of the contour shown, or otherwise, and is provided with a marginal rim 2, the said rim extending a suitable distance beyond the body of the shoe at the outlet end thereof. As stated, the body of the mouth terminates a distance from the rim, and this portion of the shoe forms the outlet whereby the finer products are discharged and passed to the burs.

The body, at the flange 2 thereof, is provided at spaced intervals with a plurality of blocks 3, each of which having its inner face or side conforming to the contour of the flange, and each having its inner face provided with a substantially semi-cylindrical depression 4 which registers with a threaded opening 5 in the body.

Resting upon the blocks 3 and conforming marginally to the contour of the rim 2 is a reticulated plate 5, the same being provided at spaced intervals, adjacent its perimeter with openings which register with the semi-cylindrical depressions in the blocks and with the openings in the body. Passing through the openings in the plate and body and engaging the rounded walls of the depressions in the blocks, are removable elements in the nature of screws 6. The plate 5 extends beyond the body, being of a length equaling the length of the flange and the said plate has a centrally rounded non-perforated surface 7 which is adapted to be arranged under the mouth of the mill. The plate is provided with elliptical openings 9 arranged in a circle around the portion 7 thereof, and with additional elliptical openings 10 also arranged in a circle between the openings 9. The portion of the plate arranged between the straight parallel walls of the flange is also formed with series of transversely extending elongated openings 11, the openings of one of the series being arranged between the openings in the second series or being arranged opposite the portion of the metal connecting the openings in the said series. The last series of openings, or those arranged at the mouth of the shoe are positioned just beyond the terminal of the body 1, this series being indicated by the numerals 11—12.

The plate 5 is removable, so that other plates having openings of varying sizes may be arranged within the shoe, and the non-perforated portion 7 of the plate 5 is provided for regulating the feed, and if desired, the same may be cut off by lowering the spout of the mill without interfering with the vibration of the shoe, and thus effect the separation of the coarser from the finer portions of the grain.

Having thus described the invention, what I claim is:

A shoe for the purpose set forth, having a substantially circular intake end, and an elongated portion extending therefrom, a body, a marginal rim connected with the body and extending beyond its discharge end, a plate having a marginal contour corresponding with the rim, means for removably supporting the plate above the body, the plate at the intake end being provided

with openings extending radially from the center thereof, the plate beyond the radial openings being provided with rows of spaced openings, the openings in each row being in alinement with the spaces of the adjacent rows, the end series terminating beyond the outlet end of the body.

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

JAMES A. POPLIN.

Witnesses:
A. V. FOOTE,
T. W. CHURCH.

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