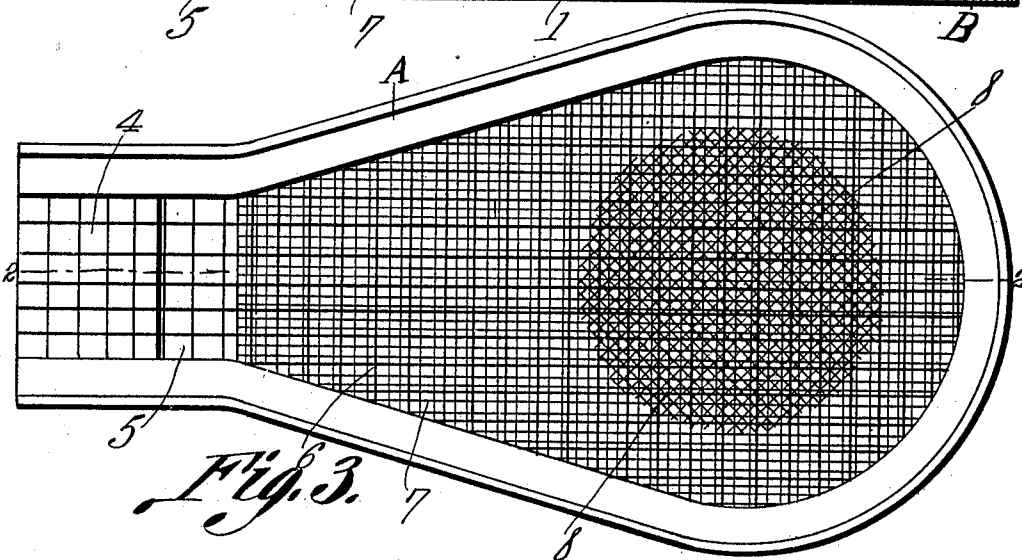
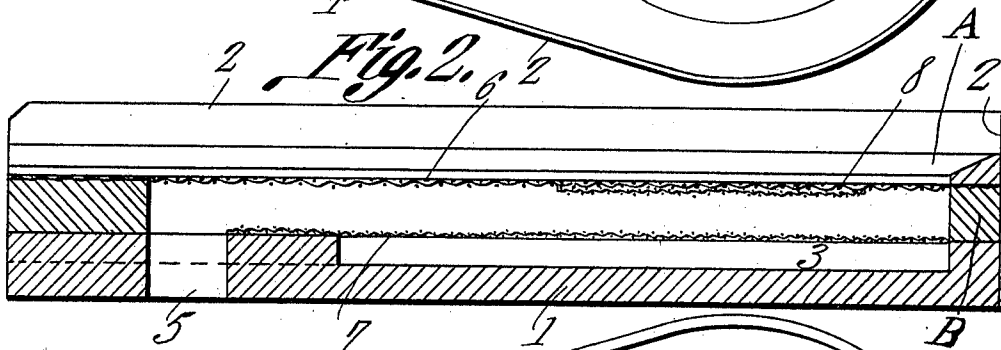
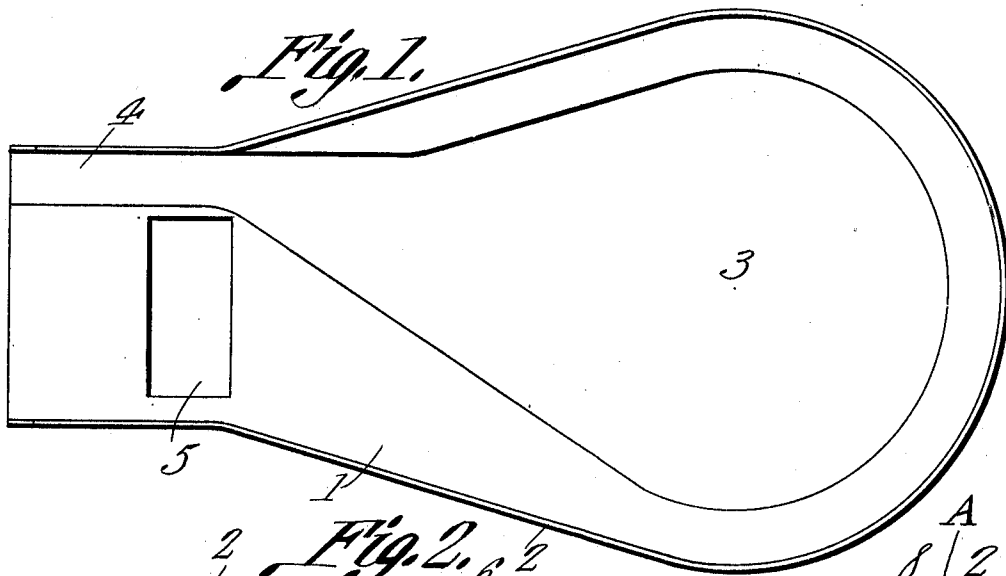


J. D. MOORE.  
COMBINATION SHOE,  
APPLICATION FILED SEPT. 6, 1910.

978,188.

Patented Dec. 13, 1910.



Witnesses:

*R. M. W. L.*  
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Attorneys.

# UNITED STATES PATENT OFFICE.

JAMES DUDLEY MOORE, OF NORTHWILKESBORO, NORTH CAROLINA.

## COMBINATION-SHOE.

978,188.

Specification of Letters Patent. Patented Dec. 13, 1910.

Application filed September 6, 1910. Serial No. 580,486.

*To all whom it may concern:*

Be it known that I, JAMES D. MOORE, a citizen of the United States, residing at Northwilkeshoro, in the county of Wilkes and State of North Carolina, have invented a new and useful Combination-Shoe, of which the following is a specification.

This invention relates to a combination shoe and screen device to be used in connection with bur corn mills.

The object of the invention is to provide an article of this character which shall be simple in construction, and which will in a ready and certain manner remove from the grain any metallic substances such as nails, small pieces of iron or the like, and furthermore will positively separate the coarser from the finer material, so that the finished product will be of the highest grade.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a combined screen and shoe, as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a view in plan of the shoe, with the screens removed. Fig. 2 is a longitudinal sectional view through the article, taken on the line 2—2 Fig. 3. Fig. 3 is a top plan view of the completed article.

Referring 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 metallic rim 2. The body, as usual, is constructed of wood and is provided at its intake end or that which will be disposed beneath the spout of the mill with a relatively large chamber 3 into which the finer products are discharged and pass out through a lateral channel 4 at the small or discharge end of the shoe to the burs. Extending through the discharge end is a transverse opening 5 through which the perfect grains escape, the coarser products, imperfect grains, portions of corn cobs, and other trash escaping over the end of the shoe. Fitting within the body and conforming marginally to the contour of the rim 2 is a frame comprising two members A and B, between which is secured a relatively coarse mesh screen 6, the member B having secured to its under side a relatively fine mesh screen 7, the latter terminating with the rear wall of the opening 5. At that

portion of the screen 6 that will come under the mouth of the mill there is secured a section of fine screen 8, and this is provided for the purpose of regulating the feed, and if desired, of cutting off the same, which may be accomplished by lowering the spout of the mill, and yet still permit the shoe to vibrate and thus effect the separation of the coarser from the finer portions of the grain.

The object in having the screen frame removable is to enable the operator to replace a coarse screen with a fine one or vice versa according to the character of grinding that it is desired to perform, and by this means one mill will be adapted to grind flour equally well as corn meal. In this device it will be seen that the coarser screen will carry off the large matter such as cob ends and the like, while the finer screen will convey the grain to the conduit leading into the burs, and at the same time allow any small trash such as silks, inferior grain, grit and the like to pass through and off of the end of the screen the same as that of the coarse sieve.

The adoption of this device to certain grades of corn mills already in use will not require any extended change in the structural arrangement of the latter and from the standpoint of simplicity, it will be found effectively to overcome an inherent objection present in most bur mills.

What is claimed is:—

1. The combination with a body provided at its intake end with a grain receiving chamber, with a lateral discharge, and with an opening near its discharge end, of a double screen removably arranged in the body and provided at its intake end with means for checking the discharge of grain.

2. The combination with a body provided at its intake end with a grain receiving chamber, with a lateral channel, and with a transverse opening near its discharge end, of a double screen loosely arranged within the body, and provided at that portion which will be disposed beneath the chute of the mill with a relatively fine screen to check the discharge of grain.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES DUDLEY MOORE.

Witnesses:

R. M. HOUCK,  
T. W. CHURCH.