

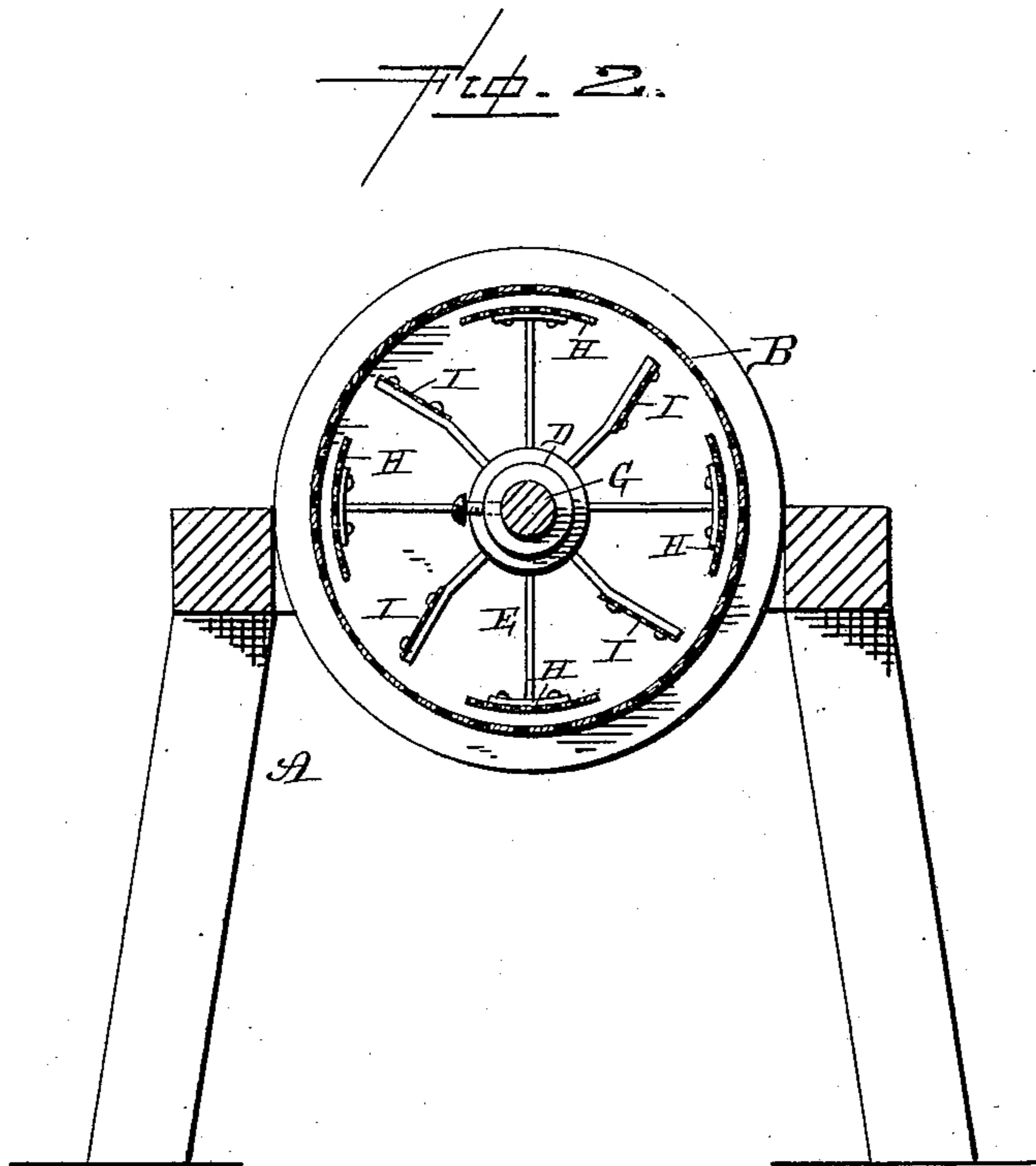
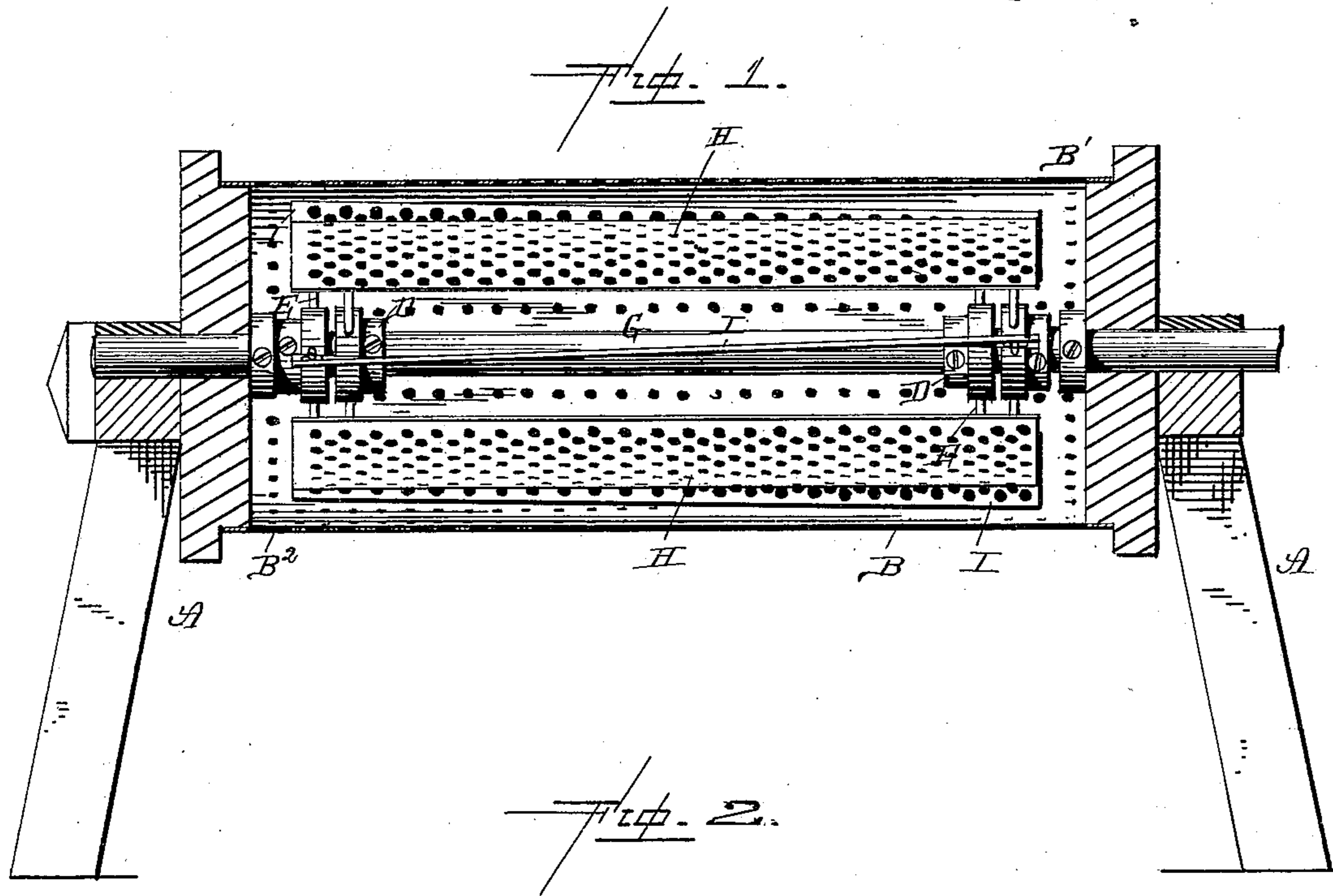
(Model.)

G. A. DAWSON.

GRAIN SCOURER.

No. 297,353.

Patented Apr. 22, 1884.



—WITNESSES.—

Louis F. Gardner

J. W. Garner

—INVENTOR.—

Geo. A. Dawson,

per  
J. A. Lehmann,  
Atty.

# UNITED STATES PATENT OFFICE.

GEORGE A. DAWSON, OF CARDINGTON, OHIO.

## GRAIN-SCOURER.

SPECIFICATION forming part of Letters Patent No. 297,353, dated April 22, 1884.

Application filed January 16, 1884. (Model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. DAWSON, of Cardington, in the county of Morrow and State of Ohio, have invented certain new and useful  
5 Improvements in Grain-Scourers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being  
10 had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in grain-scourers, and which is adapted especially to remove the impurities from the ends  
15 of the wheat-berry; and it consists, first, in the combination of the horizontal perforated cylinder, a shaft passing through it, and the two sets of perforated scouring devices, which are arranged at right angles to each other; second,  
20 in the combination of the perforated cylinder, the shaft which passes through it, a set of curved perforated scouring devices, and a set of radial perforated scouring devices, which extend at right angles to the curved scouring  
25 devices; third, in the combination of the perforated cylinder, the shaft which passes through it, a set of curved perforated scouring devices, and a set of radial perforated scouring devices which extend at right angles to the curved  
30 scouring devices, and a means for adjusting the said sets of scouring devices with respect to each other, as will be more fully described hereinafter and claimed.

The object of my invention is to provide a  
35 machine which is specially adapted for removing the impurities from the ends of the wheat-berry, so that the flour produced from the wheat will be free from all dirt and gritty substances.

40 Figure 1 is a vertical longitudinal section of a machine embodying my invention. Fig. 2 is a section taken at right angles thereto.

A represents the frame-work, of any suitable construction; and B, the cylinder, which  
45 is secured rigidly therein. This cylinder B consists of solid heads and a perforated metallic body, the perforations through the body being circular and just large enough to allow the ends of the wheat-berries to enter them  
50 without permitting the berries themselves to pass through. A suitable opening, B', is made

at one end of the cylinder for the wheat to be fed into it, and this wheat, after passing along the interior of the cylinder, is discharged through the opening B' in the bottom at the  
55 opposite end. Passing longitudinally through this cylinder is the shaft G, to which the two sets of scourers are secured by means of the adjustable collars D, set-screws, which clamp the collars to the shaft, and arms E. One set  
60 of these scourers consists of the flat perforated scourers I, which are arranged radially and slightly inclined or at an angle with relation to the shaft, and which serve the double purpose of assisting in scouring the grain and  
65 moving it from the delivery end of the cylinder toward the discharge end. As these scourers I are made to revolve, their friction against the wheat serves to scour and then lift it upward along the sides of the cylinder, so that  
70 the ends will catch in the perforations in the cylinder, to be acted upon by the scouring devices H. Placed between these scouring devices I, which extend almost radially outward from the shaft, are a second set of scouring  
75 devices, H, which, instead of being arranged radially in relation to the shaft, are curved and placed at right angles to the scouring devices I, and sweep around close to the inner surface of the cylinder B. These scouring de-  
80 vices H are also perforated like the cylinder B. While the scourers I serve to help scour and move the wheat-berries from one end of the cylinder to the other, they also serve to  
85 raise the wheat from the bottom of the cylinder, so that the grains will be caught between the outer surfaces of the scourers H and the inner surface of the cylinder as they fall from the flat surfaces of the scourers I. As these  
90 berries are caught in between the scourers H and the cylinder, their ends will sink into the perforations in the cylinder B and be acted upon by the scourers H while in an endwise position. The friction of the outer ends of the wheat-berries between the inner rough-  
95 ened side of the cylinder and the scourers H as they are carried around serves to scour and break away the outer ends of the berries, and thus free them from all impurities which may be attached to them.

The two sets of scourers are made adjustable upon the shaft for the purpose of increasing

100

and decreasing the distance between them, and for regulating the angle or inclination of the scourers I, and the consequent rapidity at which the grain is moved toward the discharge end of the cylinder B. The perforations in the cylinder are made not only to allow the ends of the wheat-berries to be caught therein, but allow dirt and dust resulting from the scouring of the wheat to pass freely through.

10 Having thus described my invention, I claim—

1. The combination of the horizontal perforated cylinder, a shaft passing through it, and the two sets of perforated scouring devices, which are arranged at right angles to each other, substantially as described.

2. The combination of the horizontal perforated cylinder B, the shaft G, which passes

through it, a set of curved perforated scouring devices, and a set of perforated radial scouring devices, which extend at right angles to the devices H, substantially as described.

3. The combination of the horizontal perforated cylinder B, the shaft G, which passes through it, a set of curved perforated scouring devices, and a set of perforated radial scouring devices, which extend at right angles to the devices H, and a means for adjusting the said sets of scouring devices with respect to each other, substantially as set forth.

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

GEORGE A. DAWSON.

Witnesses:

DAVID V. WHERRY,  
E. F. WARING.