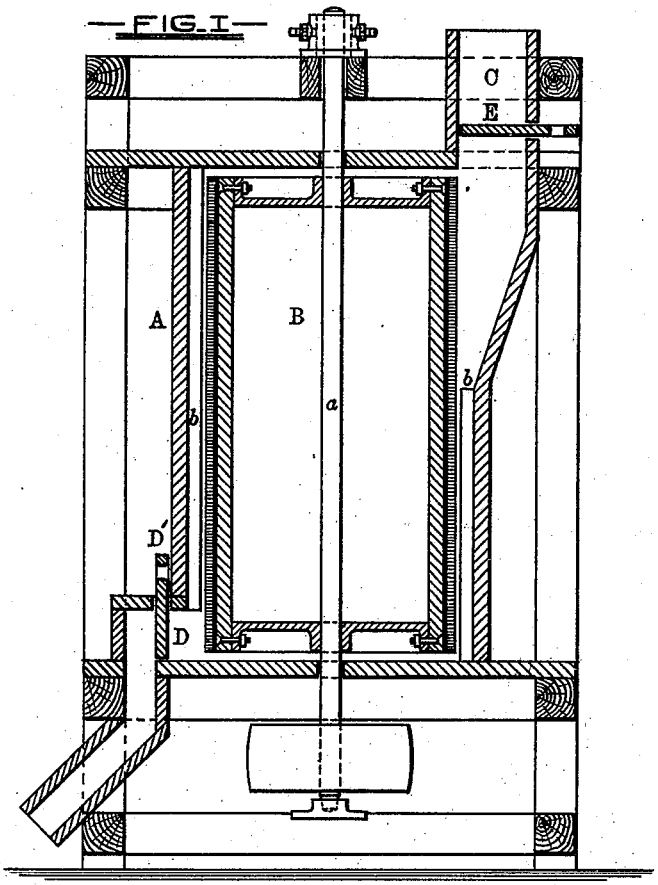
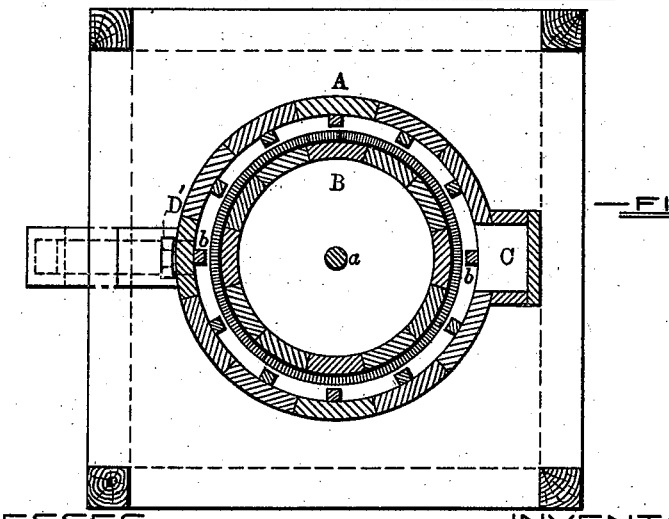
R. TYSON.
Bran-Scourers.

No. 209,092. **Patented Oct. 15, 1878.**

—FIG. I—





—FIG. II—

—WITNESSES.—

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UNITED STATES PATENT OFFICE.

ROBERT TYSON, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN BRAN-SCOURERS.

Specification forming part of Letters Patent No. **209,092,** dated October 15, 1878; application filed August 9, 1878.

To all whom it may concern:

Be it known that I, ROBERT TYSON, of the city of Baltimore and State of Maryland, have invented an Improved Machine for Removing or Detaching Flour from Bran, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention relates to certain improvements in a machine for the above-named purpose, wherein the operation is performed by attrition—that is to say, the flour and bran are separated or removed from close contact by the action of the rapidly-moving frictional surface of a part of the machine.

The said invention consists in means whereby the movement of the separating or scouring device, forming a part of the machine, is to some extent prevented from being communicated to the bran in contact therewith, the object being to retard the motion of the bran sufficiently to allow of the effective scouring of the same by the frictional surface of the separating or scouring device aforesaid.

In the description of my improved machine which follows, reference is made to the accompanying drawing, forming a part hereof, and in which—

Figure 1 is a vertical section of the machine, and Fig. 2 a sectional plan of the same.

Similar letters of reference indicate similar parts in both views.

A is a stationary or fixed cylinder, closed at its ends, and B a scouring-drum, fitted to revolve with the driving-shaft *a* therein. The body of the scouring-drum is covered with wire-card, leather, or bristles, or it is otherwise roughened in order to adapt its outer surface for removing the flour adhering to bran when the same is brought in contact therewith, as hereinafter described.

The inner surface of the cylinder A is provided with radial ribs *b*, extending nearly to the outer surface of the scouring-drum. These ribs divide the annular space around the scouring-drum into independent pockets or chambers, which are collectively supplied with bran under pressure through a spout, C, entering the upper end of the cylinder.

To obtain the desired pressure or tension of bran within the cylinder A, the said bran is allowed to pack therein to any required height; and should the column not be sufficient when the cylinder only is filled the bran may be allowed to accumulate in the conducting-spout C. The pressure in the cylinder is regulated mainly by adjusting the size of the delivery-aperture D, it being furnished with a door or valve, D′, for that purpose. The conducting-spout is provided with a gate, E, to prevent the pressure of bran within the cylinder at any time from reaching an undue point.

It will be understood that a thin layer only of bran is at any one time in actual contact with the scouring-drum, the remaining portion of the bran operating as an elastic packing to keep the inner layer firmly in place. The whole or the major part of the bran delivered to the cylinder A is, however, eventually brought into contact with and scoured by the drum B, as the scoured portion is continually passing to the delivery or discharge aperture, and its place occupied by unscoured bran from the supply thereof acting as a packing.

Although it is preferred to have the scouring-drum revoluble and the cylinder stationary, the scouring process, as described, may be effected by revolving the cylinder around a fixed drum. The heads of the cylinder and drum may also be used as scouring-surfaces, either with or without the co-operation of the cylindrical surfaces of the same; but the arrangement of the machine as shown and described gives better results.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

The cylinder A, having the radial ribs *b* and a conducting and a delivery pipe, each provided with a valve, combined with the revoluble drum B, having its outer surface covered with a rubbing material, substantially as and for the purpose specified.

In testimony whereof I have hereunto subscribed my name this 9th day of February, in the year of our Lord 1878.

ROBERT TYSON.

Witnesses:

JAMES R. MYERS,

HORACE WATERS.