(No Model.) 2 Sheets—Sheet 1.

J. SHORT.

GRAIN HULLER AND SCOURER.

No. 431,785. Patented July 8, 1890.

Fig. 1.

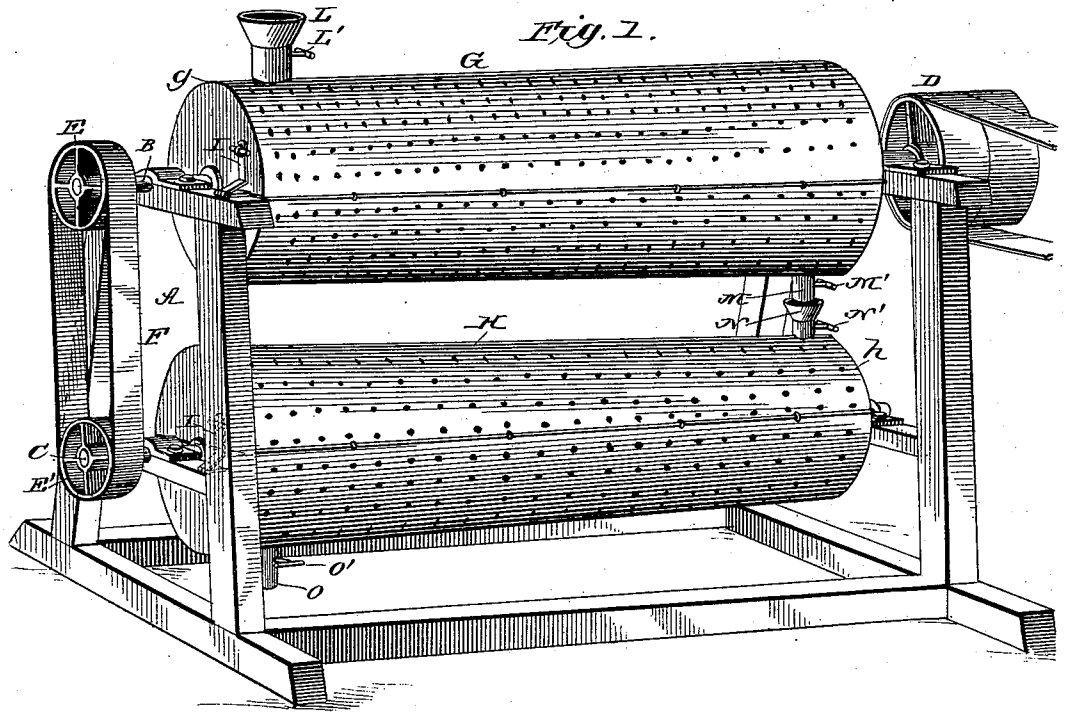
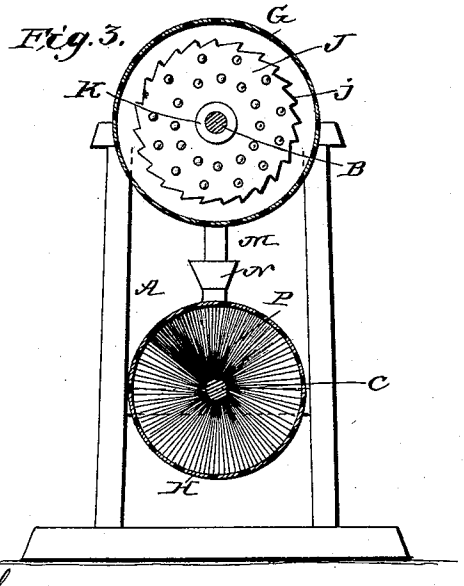


Fig. 3.



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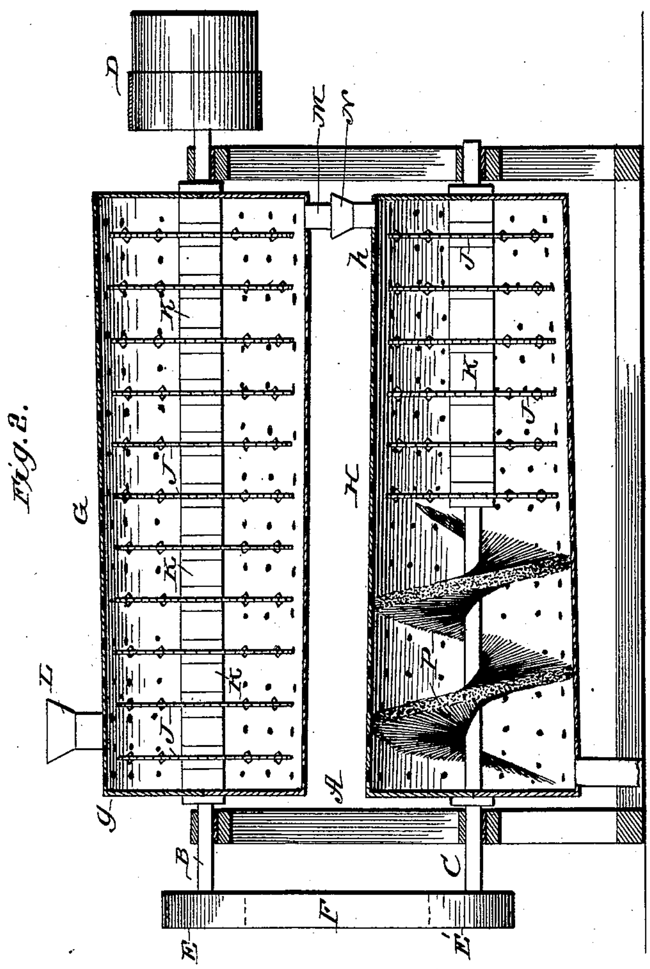
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UNITED STATES PATENT OFFICE.

JOB SHORT, OF ST. LOUIS, MISSOURI.

GRAIN HULLER AND SCOURER.

SPECIFICATION forming part of Letters Patent No. 431,785, dated July 8, 1890.

Application filed May 8, 1890. Serial No. 350,988. (No model.)

To all whom it may concern:

Be it known that I, JOB SHORT, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Grain Hullers and Scourers, of which the following is a specification.

My invention consists in a new and improved grain huller and scourer, which will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of my new and improved grain-huller. Fig. 2 is a longitudinal sectional view, and Fig. 3 is a transverse vertical sectional view.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, on a suitable frame A is mounted a shaft B, while below and parallel with it in the frame is mounted a similar shaft C. On one end of the upper shaft is a large pulley D, around which passes a drive-belt from any suitable source of power, while upon the other end of this shaft and the corresponding end of the lower shaft are smaller pulleys E E′, around which a belt F passes.

In the frame A are mounted two or more perforated cylinders G H, which may be supported on the shafts B and C, which pass centrally through them, being held from turning with the shafts by suitable braces I. Each perforated cylinder is formed, preferably, in two longitudinal halves hinged together, so that the cylinders can be readily opened when desired. The cylinders may be smaller in diameter at one end *g h* than at the other, tapering gradually in size, as shown in the accompanying drawings; or they may be made perfectly straight, of the same diameter at both ends. Upon the entire upper shaft within its cylinder, and what may be called the "forward half" of the lower shaft C within its cylinder, are secured disks J, the surfaces or side faces of which are roughened, while their edges are formed with teeth *j*, like those of a saw. These disks are separated by small washers K. It will be seen that as the shafts are rapidly revolved the teeth and rasp-like surfaces of the disk J will quickly remove the husks and clean the grain, the construction of the disks effecting this with a minimum of power required and in the best manner. The broken husks fall through the perforations into a suitable trough below the cylinders.

The grain is fed into the top cylinder G at the smaller end of the same through a flaring spout L, which is controlled by a valve L′, while as the upper shaft revolves with its disks the hulled and cleaned grain works down from the smaller to the larger end of the cylinder, the difference in size of the ends causing the bottom of the cylinder to incline in that direction and discharges from the upper cylinder through a discharge-spout M, having a controlling-valve M′. The lower end of this discharge-spout enters a flaring spout N on the top of the smaller end of the lower cylinder, the spout N having a controlling-valve N′, while at the bottom of the other end of the lower cylinder is a discharge-pipe O, having a controlling-valve O′.

The rear half of the lower shaft C has secured upon it a brush P, preferably of steel wire, and arranged in a spiral on the shaft.

In operation the grain passes through the upper cylinder, and is there hulled and passed down through discharge-pipe M and spout N into the front end of the lower cylinder. The roughened disks with teeth there operate on the grain to complete its cleaning, when the spiral steel brush finishes the cleaning of the grain and conveys it to the final discharge-pipe O.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my invention will be readily understood. By means of the valves of the feed-spouts and discharge-pipes the passage of the grain through the cylinders can be controlled at will.

Instead of the one cylinder G, another cylinder just like it can be mounted above it in a larger frame, discharging down into G, so that the grain will pass through three cleaning-cylinders instead of two.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

A grain-hulling apparatus comprising a

frame, two foraminated stationary cylinders, one above the other, and an outlet for the upper cylinder discharging into the lower cylinder, belted shafts extending through said cylinders, disks J on said shafts provided with roughened sides and toothed edges, tubular washers K, spacing said disks and having smooth exteriors, and a spiral brush on one end of the lower shaft adjacent to the outlet of the lower cylinder, substantially as set forth.

JOB SHORT.

Witnesses:
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