

(No Model.)

J. D. SHEAFFER.
WHEAT SCOURER.

No. 502,915.

Patented Aug. 8, 1893.

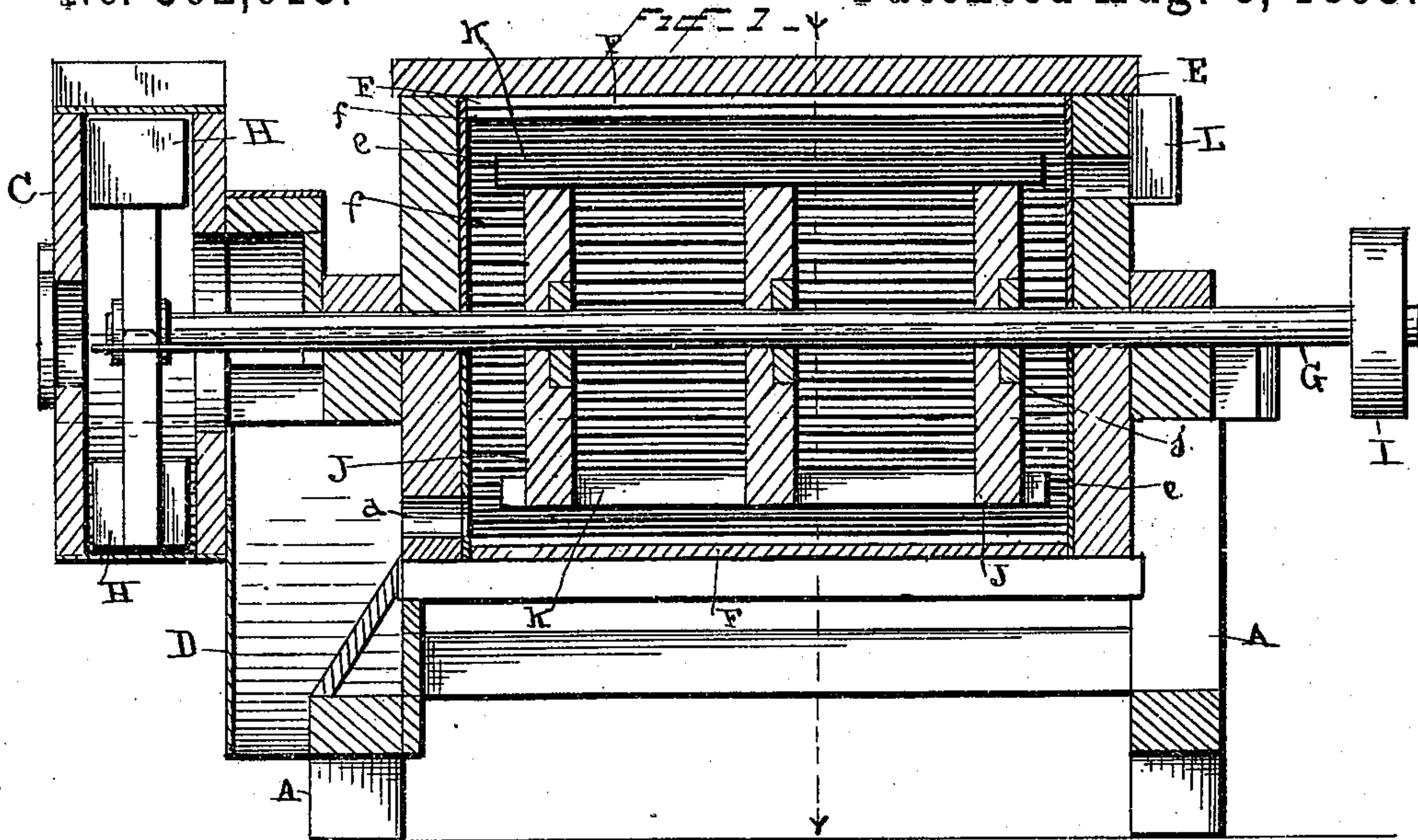
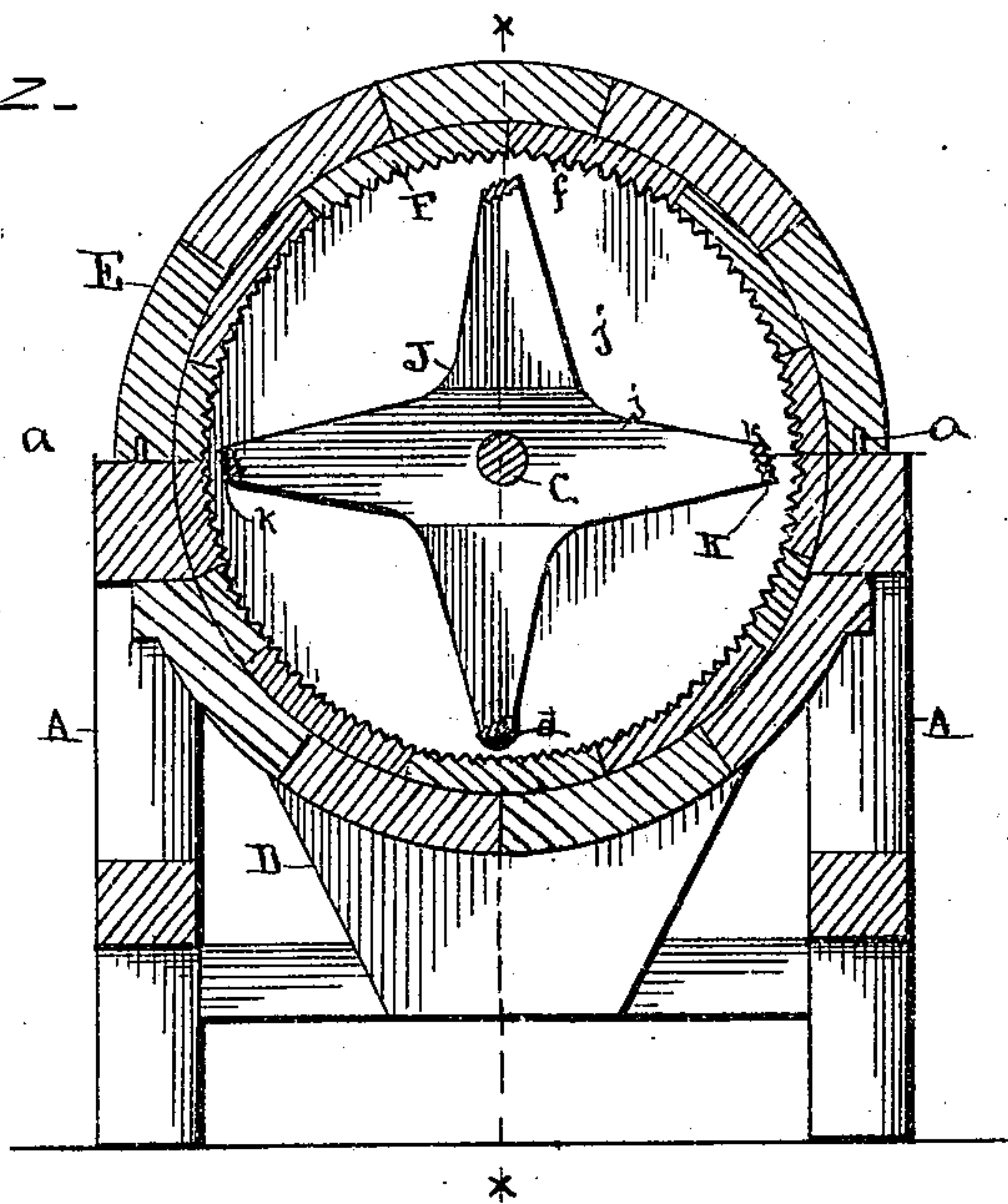


Fig. 2 -



WITNESSES -
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Fig. 3

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UNITED STATES PATENT OFFICE.

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WHEAT-SCOURER.

SPECIFICATION forming part of Letters Patent No. 502,915, dated August 8, 1893.

Application filed April 30, 1888. Serial No. 272,325. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. SHEAFFER, a citizen of the United States, residing at Avilla, in the county of Noble and State of Indiana, have invented certain new and useful Improvements in Wheat-Scourers; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to grain scourers and has for its object the production of a machine for scouring and degerminating wheat or other grain that will be simple, and compact in construction and perform its work in an efficient and expeditious manner.

The improvement consists in the peculiar construction and combination of parts which will be more fully described and claimed and shown in the annexed drawings, in which—

Figure 1 is a vertical central longitudinal sectional view of a grain scourer of my invention on the line X X of Fig. 2, and Fig. 2 is a cross section of the grain scourer on the line Y Y of Fig. 1. Fig. 3 is a cross section of the beater bars on an enlarged scale.

The frame which may be of suitable construction, is composed of the corner posts A, and end and side beams, has the upper side beams B extended at one end to support the fan case C and the discharge spout D.

The scouring cylinder is made in two halves, the lower half being supported between the upper end and side beams, and the upper half resting on the said beams and held thereon from lateral displacement by any well known means such as the dowels *a*. The ends of each half of the cylinder are semi-circular and are connected together by slats E which are nailed or otherwise fastened at their ends to the said ends of the cylinder, and which are lined with metal plates *e*. The metal plates F curved in cross section to conform to the circle of the cylinder, have their inner surfaces corrugated or ribbed, the ribs *f* being fine and parallel with each other and with the edges of the plates to extend lengthwise of the completed cylinder. These plates are formed of cast metal having their ribbed sides

chilled and form a lining for the cylinder and are secured to the slats E in any desired manner. The ribs have their sides beveled equally in each direction, and are sharp to cut the grain without grinding it to a powder.

The shaft G concentric with the cylinder is journaled at its ends in the end beams of the frame, and is provided at one end with the fan H, and at the other end with the band pulley I, and intermediate of its ends with the spiders J which support the beaters K on their ends. These spiders are each composed of two bars *j* which are arranged at right angles to each other and halved together. The ends of the bars *j* slant at an angle of about twenty-two and one-half degrees to radii of the shaft G to bring the ends of one bar at right angles to the ends of the other bar. By this arrangement the beaters have one edge approaching close to the inner side of the cylinder and the other edge receding so that the grain will be crowded between the side of the cylinder and the beater. The beaters K are metal bars having one or both sides ribbed the ribs *k* corresponding and being parallel with the ribs *f* of the cylinder, and are preferably cast having the ribbed sides chilled. The ribs *k* are fine and are parallel with each other and with the edges of the bars and have their sides equally beveled. The beaters are parallel with the shaft G.

The grain is supplied to the cylinder through the chute L near the top of one end of the cylinder, and is discharged into the grain spout D through the opening *d* near the bottom of the other end of the cylinder. The beaters are set in motion by power being applied to the cylinder G from any suitable source. The grain in its passage through the machine is thoroughly degerminated and scoured, the dust being removed by the fan.

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

1. In a grain scourer, the combination of an imperforate and tight scouring cylinder lined with metal plates which are roughened on their inner sides, a rotatable shaft having spiders, and beater bars roughened on both sides and adapted to be reversibly attached to the outer ends of the arms of the said spiders, extending parallel with and nearly the

full length of the cylinder, and set obliquely in cross section to radii of the said cylinder, substantially as and for the purpose set forth.

2. The herein shown and described grain
5 scourer composed of an imperforate and tight
scouring cylinder made in halves and lined
with metal plates which are roughened on
their inner sides, and having a grain inlet at
one end and a grain outlet at the opposite
10 end, a fan located at the delivery end of the
scouring cylinder and adapted to remove the
chaff and light stuff from the grain as it
leaves the cylinder, a rotatable shaft jour-
naled between the meeting edges of the halves
15 of the cylinder ends and carrying the said fan,

spiders mounted on the shaft and beater bars
roughened on both sides and adapted to be
reversibly attached to the outer ends of the
arms of the said spiders, extending parallel
with and nearly the full length of the cylin- 20
der, and set obliquely in cross section to radii
of the said cylinder, substantially as herein
shown and described.

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

JOHN D. SHEAFFER.

Witnesses:

WASHINGTON L. WOOD,
HIRAM T. SMITH.