D. M. RICHARDSON.

Improvement in Grain-Scourers.

No. 130,315. Patented Aug. 6, 1872.

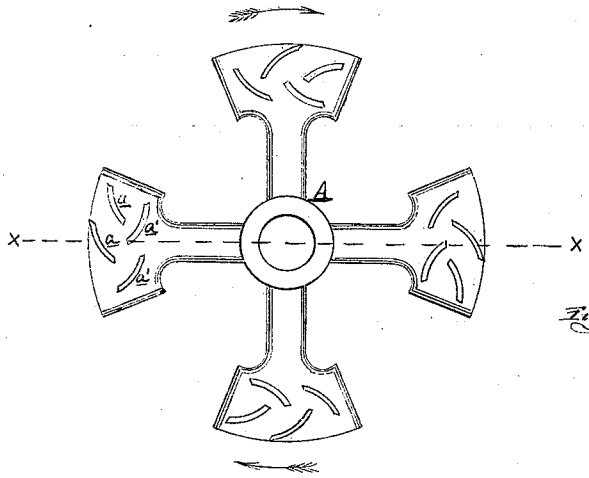


Fig. 1



Fig. 2

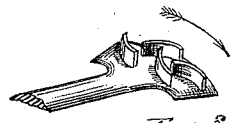


Fig. 3

ATTEST:
H. C. Sprague
N. F. Ellerts

INVENTOR:
D. M. Richardson
Per Atty
Thos S. Sprague

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

DAVID M. RICHARDSON, OF DETROIT, MICHIGAN.

IMPROVEMENT IN GRAIN-SCOURERS.

Specification forming part of Letters Patent No. **130,315**, dated August 6, 1872.

To whom it may concern:

Be it known that I, DAVID M. RICHARDSON, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Machines for Cleaning and Scouring Wheat; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is an elevation of the bevel side of one of the spiders shown in the patent issued to Ephraim Russell, February 14, 1871, with my improved teeth applied thereto. Fig 2 is a cross-section through the line *x x* in Fig. 1, and Fig. 3 is a perspective view of a portion of one of the arms.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improvement in the construction of the machine for cleaning and scouring wheat patented by Ephraim Russell, February 14, 1871; and has for its object the more effectual removing from the wheat-berries of the fuzz and chit at the ends thereof than can be accomplished by the said machine. The invention consists in replacing the rectilinear studs or teeth *a*, described in the said patent, with a series of curved teeth or segments, as more fully hereinafter described and shown.

In the drawing, A represents one of the iron spiders described in the said Letters Patent, with the exception of the teeth therein referred to, which I replace by the small segments *a a'*, disposed on the blades of the arms, as shown in Fig. 1 in the accompanying drawing.

It is found in practice that while the machine patented by the said Russell effectually scours the wheat-berries, in their passage through the machine, it fails to remove the fine fuzz and chit growing in the end of the berry, and in which the smut-germs gather. The arms fitted with my improvement first catch the berries on the inner faces of the segments *a*, whence they are deflected and strike endwise upon the segments *a'*, and in the concussion the ends of the berries are sufficiently bruised to liberate the fuzz and chit referred to without breaking. The berries pass along between the ends of the segments *a*, the sides of the segments *a'*, and strike against the segments *a* succeeding, when any adhering fuzz or chit is beaten off the berries, and are then turned end for end before coming in contact with the succeeding segments *a'*, which effectually complete the process.

What I claim as my invention, and desire to secure by Letters Patent, is—

The spider A provided with the curved segments *a a'*, arranged as described, for the purpose set forth.

DAVID M. RICHARDSON.

Witnesses:

H. F. EBERTS,

H. S. SPRAGUE.