A. GAAR.

Grain Screen.

No. 18,444. Patented Oct. 20, 1857.

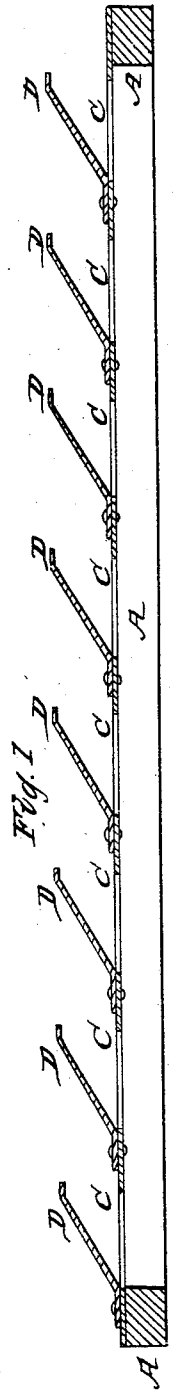


Fig. 1

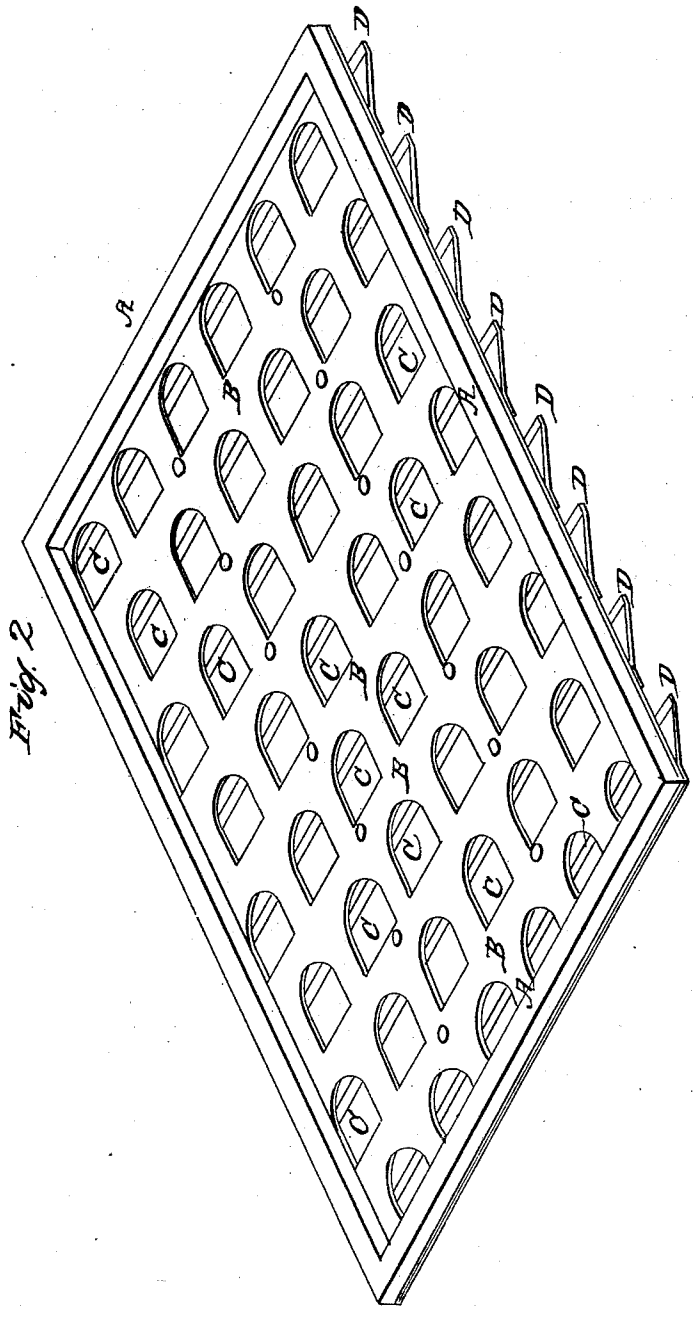


Fig. 2

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ABRAM GAAR, OF RICHMOND, INDIANA.

SCREEN FOR GRAIN-SEPARATORS.

Specification of Letters Patent No. 18,444, dated October 20, 1857.

To all whom it may concern:

Be it known that I, ABRAM GAAR, of Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Riddles or Screens for Grain-Separators; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, represents a longitudinal vertical section through the riddle or screen, and Fig. 2, represents a perspective view of the riddle turned upside down to show the openings through it.

My invention relates to the construction of a chaff screen for grain separators, made of a thin sheet of metal punched with semi-circular, or other shaped holes, and with narrow strips of metal extending across and riveted to said plate of punched metal, and overhanging the apertures of the plate, at any angle greater than that of the plate itself, for the purpose of allowing the grain to pass through said screen and giving direction to the wind, and at the same time prevent straw or chaff from entering said apertures.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents a rectangular frame, to which the sheet of metal B, that forms the screen is secured. This thin metal sheet B, is first punched with any suitable number of holes or apertures C, and then transversely of said plates, and immediately behind the lines of apertures are riveted strips of metal D, so as to project forward, and overhang their respective lines of apertures. The angle of inclination of these strips may be varied, but should always be greater than that of the plate B.

The operation of the screen is as follows: The straw, chaff, and grain being indiscriminately thrown or delivered upon it, the straw will ride along over the top of the strips, and the blast from the fan blower passing up through the openings C, is directed forward by the strips D, and meeting the chaff and light material blows it out while the heavy grains roll down the upper inclined sides of the slats or strips D, falls through the apertures C, and is conveyed by a chute or spout out of the machine in the usual manner.

A screen thus made is very cheap and efficient, performing its several duties with great regularity.

I am aware that a riddle has been made of slats alone, and I am also aware that a screen has been made out of a punched plate; and in some cases that, a tongue has been left in the aperture, which was bent upward to direct the blast, but that in this latter plan the grain had little or no facility for passing through the apertures. I claim none of these things; but

What I do claim as new and desire to secure by Letters Patent is—

A screen composed of a thin piece of metal punched with suitably shaped apertures, with narrow strips of metal extending across and riveted to said plate of metal, and overhanging said apertures at any angle greater than that of the plate, for the purpose of allowing the grain to pass through the apertures of said plate, giving direction to the blast, and at the same time preventing straw or chaff from entering said apertures, as herein set forth and explained.

ABRAM GAAR.

Witnesses:
STEPHEN R. WIGGINS,
CHARLES C. WIGGINS.