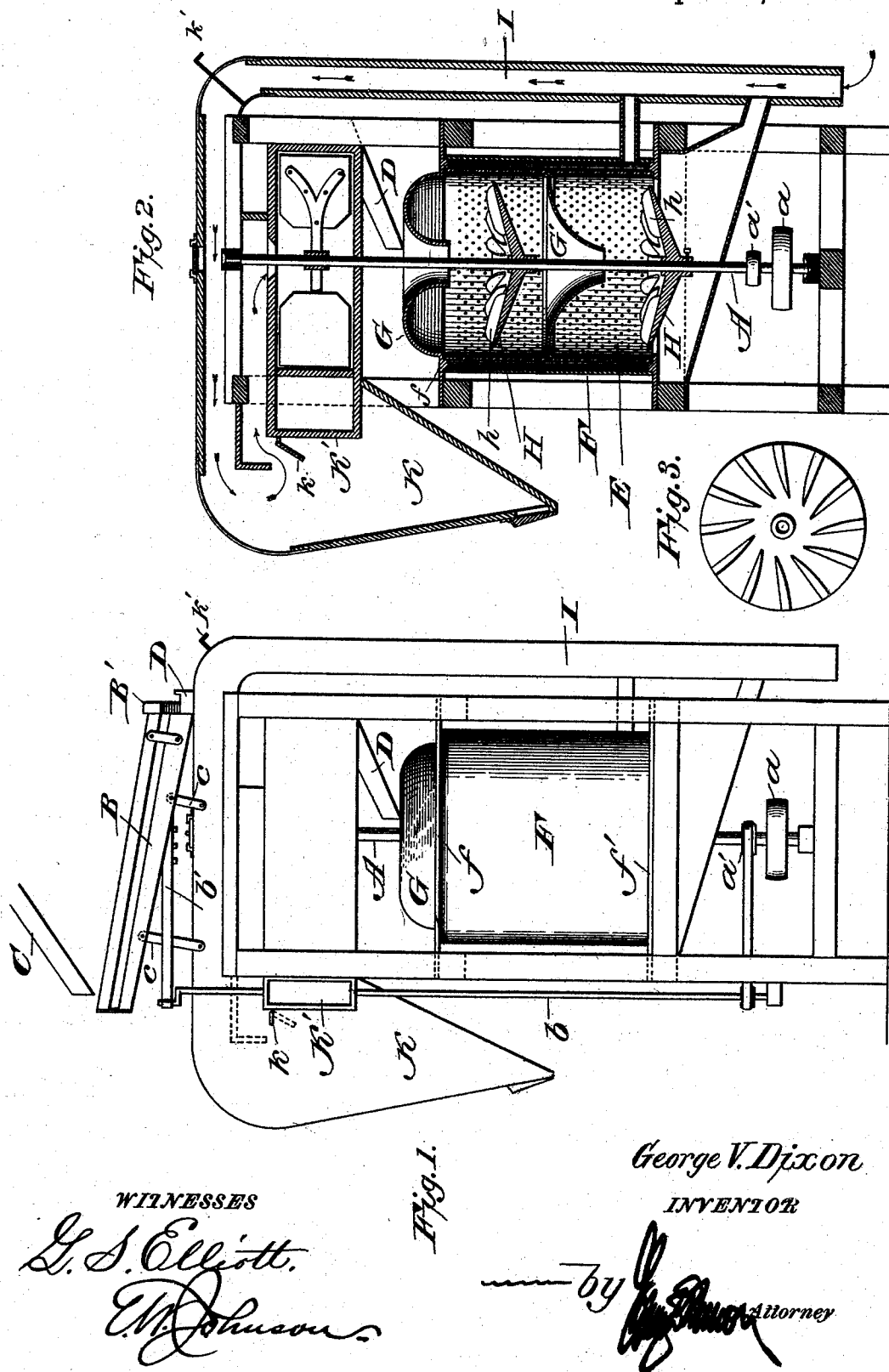


(No Model.)

G. V. DIXON.
WHEAT SCOURER.

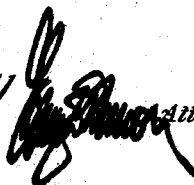
No. 505,702.

Patented Sept. 26, 1893.



WITNESSES
L. S. Elliott.
W. Johnson.

George V. Dixon
INVENTOR

by  Attorney

UNITED STATES PATENT OFFICE.

GEORGE V. DIXON, OF WAIT'S, OHIO.

WHEAT-SCOURER.

SPECIFICATION forming part of Letters Patent No. 505,702, dated September 26, 1893.

Application filed April 8, 1893. Serial No. 469,290. (No model.)

To all whom it may concern:

Be it known that I, GEORGE V. DIXON, a citizen of the United States of America, residing at Wait's, in the county of Scioto and State of Ohio, have invented certain new and useful Improvements in Wheat-Scourers; and I do hereby 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 letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a grain scourer of improved construction, wherein the scouring case is practically divided into two parts each part being provided with disks of peculiar construction whereby the grain is operated upon successively.

The invention consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side view of a grain scourer constructed in accordance with my invention. Fig. 2 is a vertical sectional view, and Fig. 3 is a plan view of one of the disks detached.

The operating mechanism is supported upon a frame, which may be of ordinary construction, said frame having journals for a vertical shaft A which has near its lower end a driven pulley *a*, and a pulley *a'* over which passes a belt for turning a shaft *b* having at its upper end a crank to which is attached a rod *b'* for oscillating the riddles or screens B which are supported upon the upper end of the apparatus. The riddles or screens are supported on pivoted bars or links *c c*, and the wheat which is fed from the spout C falls upon the upper screen or riddle, the mesh of which is of such a size that it will permit the wheat or grains to pass through the same to the lower screen, while sticks, trash, &c., are discharged by way of the spout B'. The lower screen or riddle is of such a mesh that the grains are retained thereon and fed to the spout D, while small particles, such as cheat, &c., pass through the screen to the bottom plate and are fed therefrom to a suitable receptacle.

The spout D conveys the wheat to the scouring case E, which is made up of a cylinder of perforated metal, or two cylinders may be used. Surrounding the scouring case is a cylinder F, which is of larger diameter than the scouring case so as to provide a space between them, and a tube leads from this space through the cylinder to an air blast.

f and *f'* designate two plates which are secured to the frame of the apparatus and are provided with annular flanges on each side of which and against said plates the ends of the scouring case and cylinder F bear. The plate *f* is formed with a dome G, the central portion of which is depressed or curved inward to provide a central funnel-shaped discharge opening through which the wheat is fed to the rotary disks, and through this opening also passes the shaft A. About centrally within the scouring case is secured a funnel G', the upper part of which is flared outwardly as shown, so as to provide said funnel with a curved under surface which extends from the lower end of the same to the scouring case.

Upon the shaft A and below each funnel-shaped opening is mounted a concave disk H, said disks being provided on their upper concave surfaces with projecting ribs *h* which are arranged at a tangent to the hub and are provided on one side with a straight edge, while the opposite side is curved, so that when the disks are rotated the grain will be caught and thrown against the inner side of the scouring case, and what grain is thrown against the under sides of the funnels will be deflected toward the sides of the casing.

When the grain is fed from the spout D upon the upper disk H it will be thrown by the ribs thereon against the scouring case, the grains that strike against the dome G being directed back upon the disk, and when said grain has been agitated by the upper disk it falls through the space beyond the same upon the funnel G' from which it is discharged upon the lower disk and is thrown therefrom against the lower part of the scouring case, that which strikes against the under side of the funnel G' being directed by the curve of the same to the opening between the lower disk and the casing from which it falls upon a suitable incline and is led into an air-trunk

I, the cleansed grain falling out of said trunk into a suitable receptacle.

Above the scouring case is located a fan, which is mounted on the shaft A, and when the fan is turned in the proper direction a current of air will be drawn into the air-trunk I, and the dust and foreign particles therein and in the cylinder F will be drawn in the direction indicated by the arrows. The light particles travel with the draft and are discharged from the spout K', while the heavier particles collect in the trunk K. Suitable valves *k* and *k'* are provided for regulating the draft.

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

1. In a grain scourer, the combination, of a perforated scouring case, a disk of less diameter than the scouring case provided with upwardly projecting ribs arranged tangentially to the hub thereon, and a top or dome for the

scouring case curved inward to form a central funnel-shaped opening, substantially as shown, and for the purpose set forth.

2. In a grain scourer, the combination, of a frame having a central shaft, said shaft being provided with a fan and connected with means for operating grain separating screens, a spout leading from the separator to a dome curved inward to form a central funnel-shaped opening which leads to the scouring case, a disk mounted on the shaft within the scouring case and having upwardly projecting ribs, and a cylinder surrounding the scouring case and connected with an air-trunk, substantially as shown, and for the purpose set forth.

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

GEORGE V. DIXON.

Witnesses:

CHARLES C. ROW,
J. S. DODGE.