

A. J. ALEXANDER.
Grain Separator.

No. 65,716.

Patented June 11, 1867.

Fig. 1.

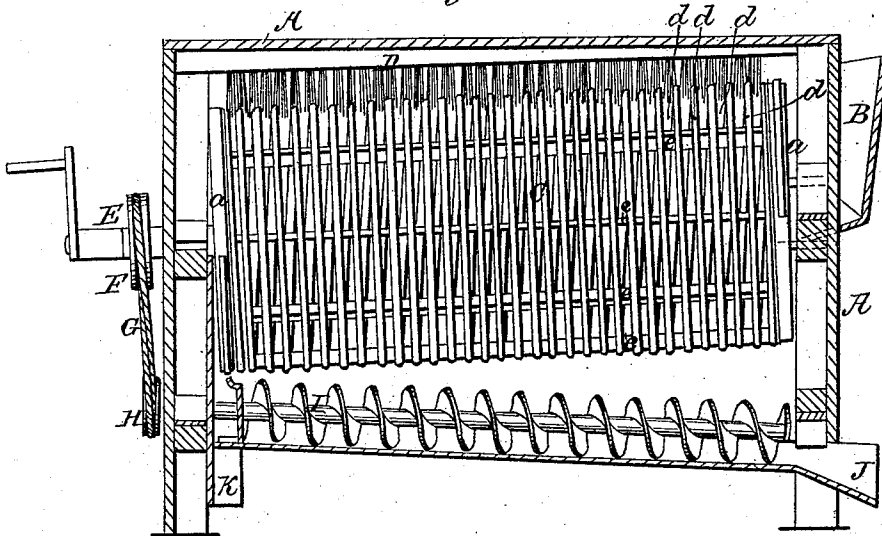
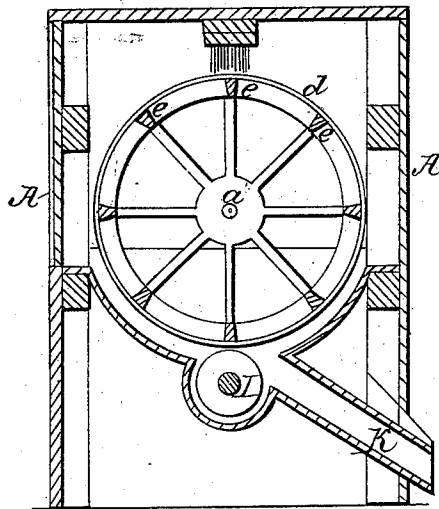


Fig. 2.



Inventor

A. J. Alexander
per
Alexander & Massey

Witnesses
A. N. Moor
V. D. Lockwood

United States Patent Office.

A. J. ALEXANDER, OF CHICAGO, ILLINOIS.

Letters Patent No. 65,716, dated June 11, 1867.

GRAIN-SEPARATORS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known, that I, A. J. ALEXANDER, of Chicago, in the county of Cook, and in the State of Illinois, have invented certain new and useful improvements in Grain-Grading and Separating Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the annexed drawings, making part of this specification, A represents a box or case, made of any suitable size, and with close sides, ends, top, and bottom. The top and one side may be provided with hinges, if thought best, for the purpose of gaining access to the interior of said case. C, a cylinder, which is placed in the case A, in a slightly inclined position, being provided with a shaft, E, which has its bearings in the ends of the case. This cylinder is composed of two cylinder heads placed at any required distance apart, and connected by a series of ribs, *e e*, which are either let into or confined to the peripheries of said heads. These ribs are provided with notches upon their outer edges at regular intervals apart. The cylinder is completed by winding wire around it, the form of the thread of a screw, the wire resting in the notches of the ribs. The distance between the threads of wire should be a little less than the transverse diameter of the full, plump grains of wheat which it is desired to grade or separate, and not close enough to prevent the passage of an inferior grade. I design having more than one cylinder constructed similarly to this, except that the one next beneath this one shall have its threads of wire a shade closer together, so as to prevent the passage of the next best grade of wheat, but allowing the passage of smaller grains; and so with the next cylinder, if another be used. The large grains of wheat, which do not pass through the intervals between the wires, are carried back by the inclined position of the cylinder C, and the screw motion of its threads, and falls out of the end of cylinder between the arms of its head, and thence into a spout, *k*, from which it passes to proper receptacles. The smaller or inferior grains which pass between the threads of wire, fall into a conveyer trough beneath the cylinder, and are carried out by a conveyer, I, either to a spout which leads to a cylinder beneath, or from the case through a spout, J, as may be desirable. B represents a hopper through which the grain is introduced to the cylinder C. F represents a pulley on shaft E, and H represents a pulley on the conveyer shaft, said pulleys being connected by a belt, G, whereby the motion of the cylinder is imparted to the conveyer. By having a series of cylinders, one beneath the other, with their threads properly graduated, wheat or any other grain may be most completely graded and sized, and separated from all other seeds of inferior size. A brush, D, is provided, and secured over the cylinder in such a manner that its hair will cut in between the threads and loosen grains or other obstacles which would stick between said threads and tend to clog it.

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

Winding the cylinder C with wire in spiral form, leaving intervals between the threads of wire somewhat less than the transverse diameter of the grade of grain to be passed through said cylinder, substantially as and for the purpose herein specified.

In testimony that I claim the foregoing, I have hereunto set my hand this 13th day of February, 1867.

A. J. ALEXANDER.

Witnesses:

I. B. WALLER,
C. M. ALEXANDER.