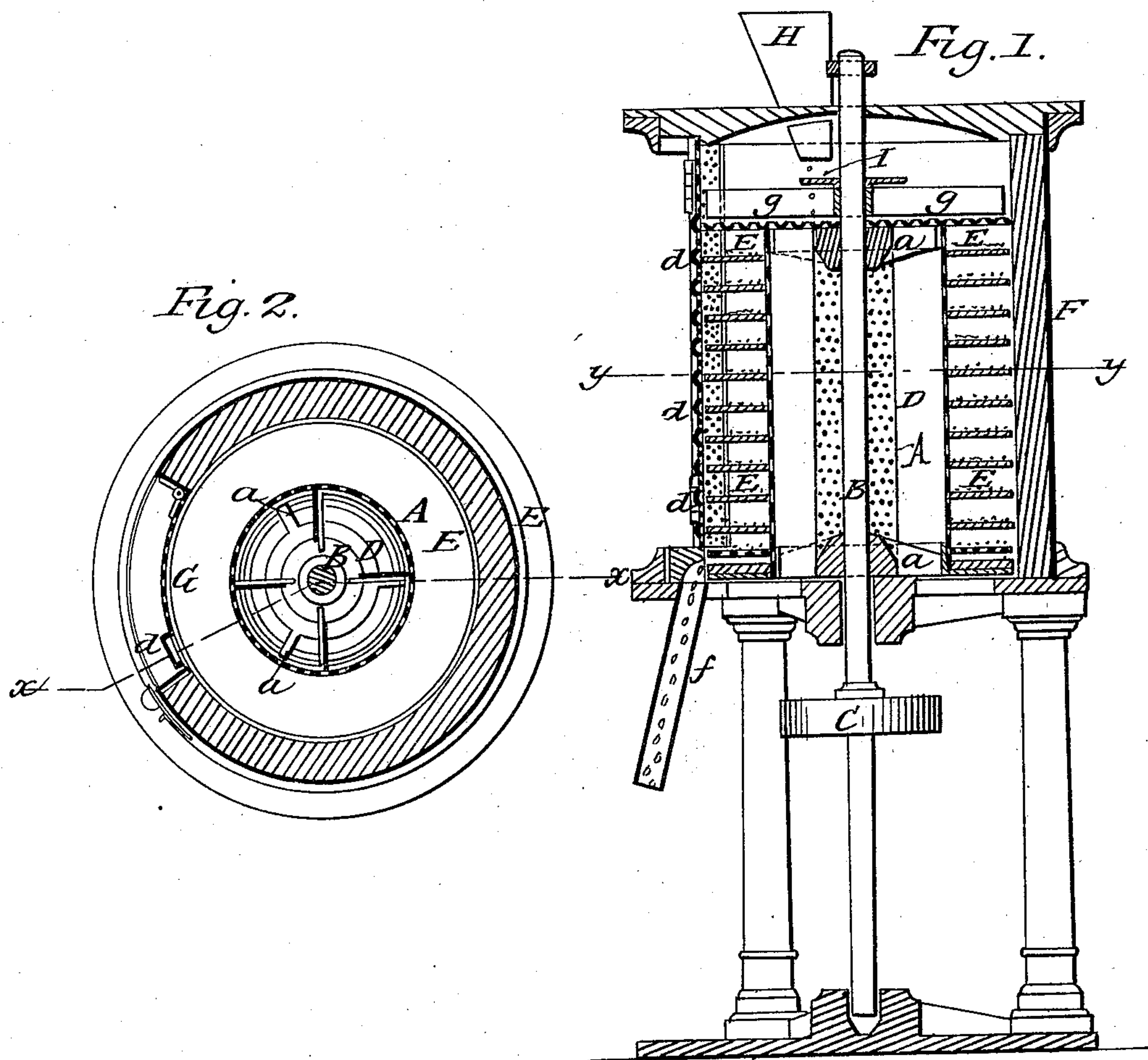


J. M. MAYER.

Machine for Hulling and Cleaning Grain.

No. 46,374.

Patented Feb. 14, 1865.



Witnesses:

M. M. Livingston  
C. L. Topliff

Inventor:

John M. Mayer.



# UNITED STATES PATENT OFFICE.

JOHN M. MAYER, OF NEW YORK, N. Y.

## IMPROVEMENT IN MACHINES FOR HULLING AND CLEANING GRAIN.

Specification forming part of Letters Patent No. 46,374, dated February 14, 1865.

*To all whom it may concern:*

Be it known that I, JOHN M. MAYER, of No. 21 Clinton street, in the city, county, and State of New York, have invented a new and Improved Machine for Hulling and Cleaning Grain, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical central section of this invention, the line *x x*, Fig. 2, indicating the plane of section. Fig. 2 is a horizontal section of the same, the plane of section being indicated by the line *y y*, Fig. 1.

Similar letters of reference indicate like parts.

This invention consists in a revolving wire-gauze cylinder provided with a series of circular shelves in combination with an internal fan-blower and with an external case provided with a series of semicircular conduits arranged in such relation to the circular shelves of the wire-gauze cylinder that the wheat or other material dropped on the first shelf passes through the first conduit to the second shelf; thence through the second conduit to the third shelf, and so on until it reaches the discharge-spout issuing from the last shelf, and in its passage over the several shelves the grain is repeatedly and violently thrown against the inner surface of the case, whereby it is thoroughly divested of its peel and discharged in a clean state.

The case is made of sheet or cast metal, and lined with stone, presenting a rough surface, and the shelves may either be smooth or made with a rough surface, so as to facilitate the operation of hulling and cleaning the grain.

A represents a cylinder, of wire-gauze or perforated sheet metal, which is provided with suitable arms, *a*, and firmly keyed to the vertical shaft B. A pulley, C, mounted on this shaft, serves to impart to it a rotary motion. The interior of the cylinder is occupied by a fan-blower, D, and secured to its outer surface are a series of circular shelves, E, the surfaces of which may be plain or roughened, or some of which may be made with plain surfaces while the surfaces of the others are rough, according to the kind of work for which the machine is to be used. Said shelves are rigidly attached to the cylinder A and re-

volve with the same, and they fit nicely into a case, F, that surrounds the same and the cylinder A, as clearly shown in Fig. 2. Said case is made of sheet or cast metal plates, lined with brick or other suitable stone, the inner surface of which comes close up to the outer circumference of the circular shelves, as clearly shown in the drawings.

The dust and impurities escape through a wire screen, G, which is inserted in the side of the case F, and connected to it by hinges, so that it can be easily thrown open, in order to get access to the interior of the case. When this screen is closed, it comes close up to the circumference of the shelves E, and it is provided with a series of semicircular conduits *d*, which are so situated that the first or uppermost conduit is divided by the first shelf, and the second conduit by the second shelf, and so on. Through these conduits the grain passes from one shelf to the other until it reaches the last shelf, which is provided with a discharge-opening, *e*, leading to the spout *f*.

The wheat or other grain to be peeled, hulled, or cleaned is admitted through a hopper, H, inserted in the top of the case F, and from this hopper it discharges on a disk, I, secured to the shaft B, as clearly shown in Fig. 1 of the drawings. By the action of this disk the grain is spread and divided equally on the upper shelf, and wings *g*, extending close over this shelf in a radial direction, stir up the grain and throw it against the inner surface of the case F. From this shelf the grain passes down to the second shelf, thence to the third, and so on until it reaches the discharge-spout, as above described. During its passage over the several shelves the grain is brought in contact with the inner rough surface of the case F, and by the action of this surface and the rough surfaces of the shelves the grain is hulled or peeled and cleaned in the easiest and most perfect manner.

I claim as new and desire to secure by Letters-Patent—

The revolving perforated cylinder A, with circular shelves E, in combination with the semicircular conduits *d* and case F, constructed and operating substantially as and for the purposes set forth.

JOHN M. MAYER.

Witnesses:

M. M. LIVINGSTON,  
C. L. TOPLIFF.