(No Model.)

E. M. HULSE.

SHODDY PURIFIER.

No. 334,777. Patented Jan. 26, 1886.

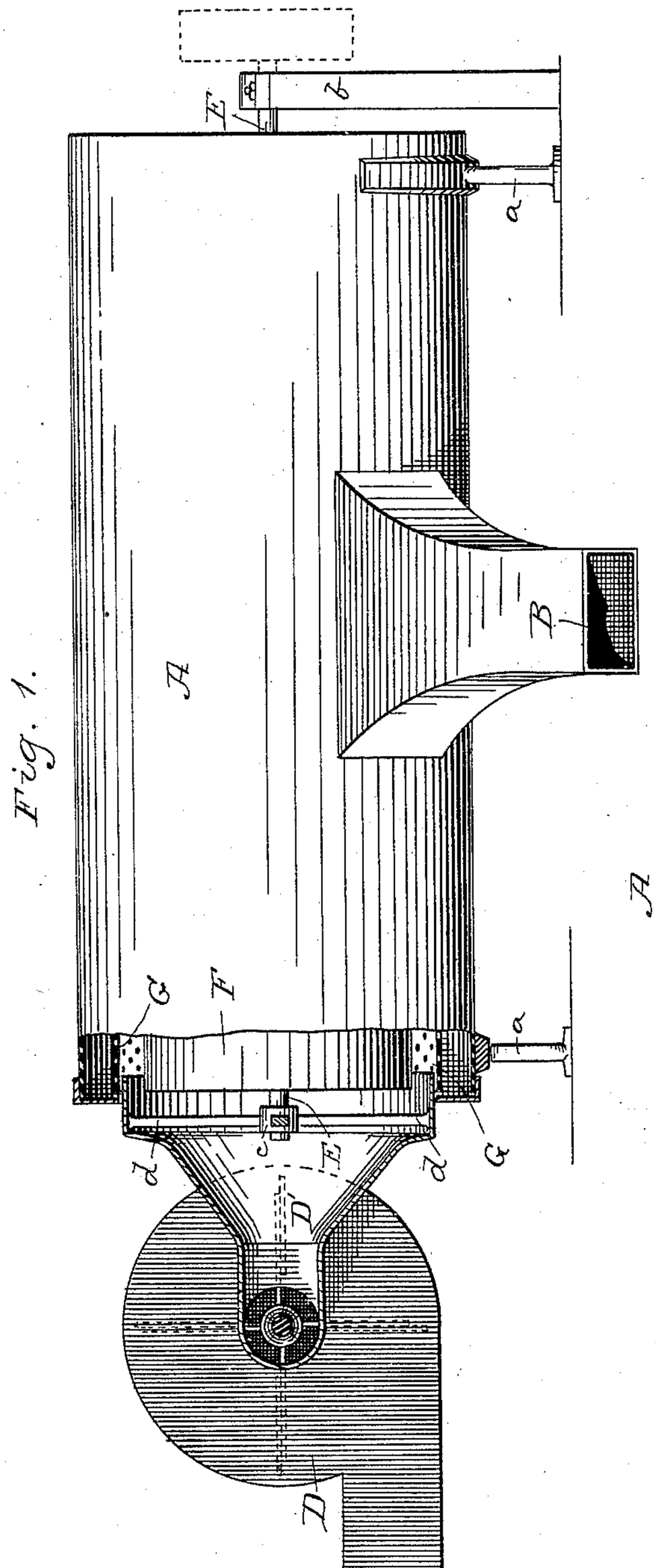

Fig. 1.

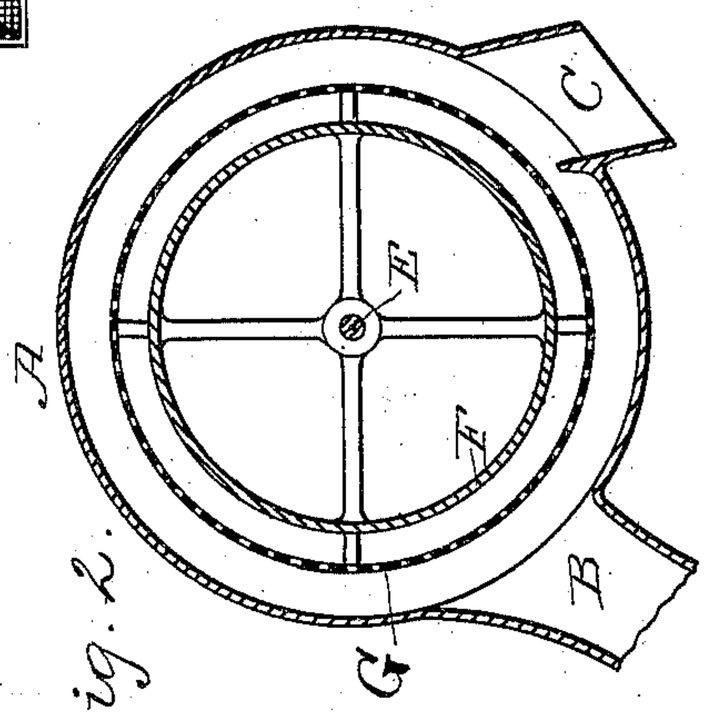

Fig. 2.

WITNESSES:

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EDWIN M. HULSE, OF CHICAGO, ILLINOIS.

SHODDY-PURIFIER.

SPECIFICATION forming part of Letters Patent No. 334,777, dated January 26, 1886.

Application filed December 1, 1883. Renewed July 3, 1885. Serial No. 170,643. (No model.)

To all whom it may concern:

Be it known that I, EDWIN M. HULSE, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shoddy-Purifying Machinery; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 my invention is to furnish a machine for removing the dust from shoddy and otherwise cleansing the same. This I accomplish by a cylinder, around and supported by which is a perforated shell, removed a suitable distance therefrom, the whole of which is placed within a suitable cylindrical casing having an inlet-opening on one side and a discharge-opening on the other. When in operation, the shoddy is forced by a blast around the perforated shell and between it and the casing, and at the same time the air is exhausted from between the perforated shell and inner cylinder, thus sucking the dust from the shoddy through the perforations of the perforated shell.

In the drawings, Figure 1 is a side elevation of my machine, showing that end nearest the exhaust-fan in section. Fig. 2 is a transverse vertical section of the same on line *x x* in Fig. 1.

In the drawings, A represents a cylindrical casing having an inlet-opening, B, on one side thereof, through which the shoddy is supplied by a blast, and a discharge-chute, C, on the other side, which is removed about two-thirds the circumference in the direction of the blast from said opening B. This cylindrical casing A is supported by suitable legs, *a*, or in any suitable manner, and is closed (with the exception of a central aperture) at that end farthest from the exhaust-fan. It is open at the other end sufficient to permit the introduction of the mouth of the bell-shaped pipe D within the inner circumference of the perforated shell.

Journaled in suitable bearing, *b*, just beyond the closed end of the casing A, and in a suitable boss, *c*, held in position by the arms *d* within the mouth of the bell-shaped pipe D, is a shaft, E, running longitudinally and centrally through the casing A. Fast on this shaft, within said casing, is a drum or cylinder, F, and surrounding said cylinder a suitable distance therefrom, and supported by studs *e*, radiating from said cylinder, is a perforated shell, G. This perforated shell is removed about an equal distance from the cylinder F and casing A. The bell-shaped pipe D decreases in diameter and leads to an exhaust-fan, D′.

The operation of my machine is as follows: The shoddy, which is just from the pickers, is conveyed by a blast through the opening B into the casing A, where, partly by the blast and partly by the revolving perforated shell G, it is carried about two-thirds the circumference of the same, from whence it is discharged through the chute C. At the same time the shoddy is being carried around and over the perforated shell the exhaust-fan is in motion exhausting the air from between the cylinder F and the perforated shell, thus drawing or sucking the dirt and dust from the shoddy outside of said perforated shell through the perforations thereof out through the bell-shaped pipe to the exhaust-fan.

If desired, the exterior surface of the perforated shell may be roughened or corrugated both transversely and longitudinally, so as to more thoroughly agitate the shoddy. Moreover, the inner cylinder F may be dispensed with without departing from the principle of my invention, which is in substance the removal of the dirt and dust from shoddy traveling around and outside the periphery of the perforated shell by exhausting the air inside the same.

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

1. The combination, with the cylindrical casing, having a suitable inlet and outlet, of a hollow perforated shell, from the inside of which the air is exhausted.

2. The combination, with a cylindrical shell having a suitable inlet and outlet, of a revolving cylinder, F, perforated shell G, and

exhaust-fan D, arranged substantially as set forth.

3. The combination of the case A, shaft E, cylinder F, and perforated shell G with an exhaust-fan, D′, said casing A having an opening, B, and an outlet, C, substantially as specified.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

EDWIN M. HULSE.

Witnesses:
JAMES H. COYNE,
FRANK D. THOMASON.