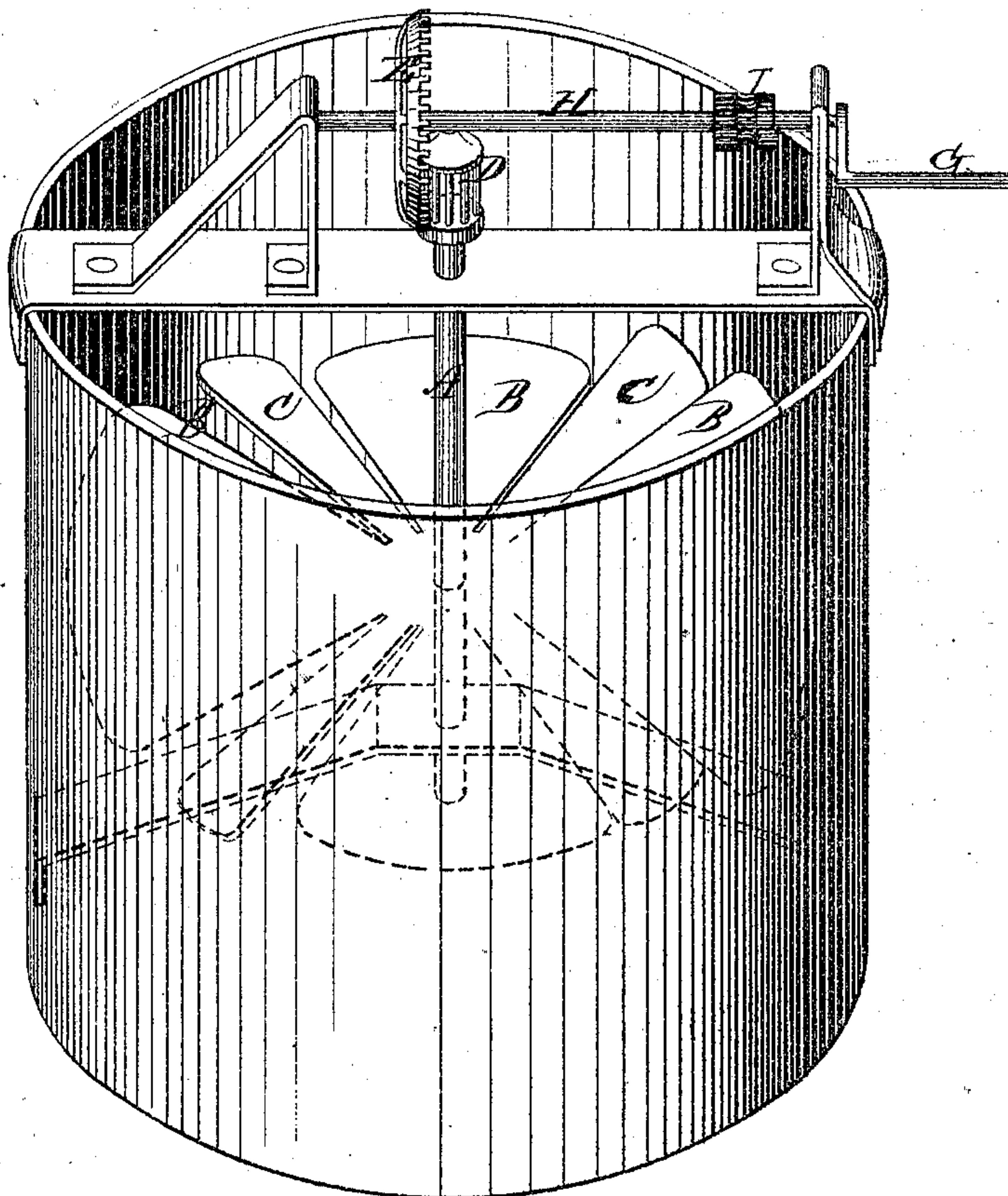


WILLIAM H. BAILEY.

Improvement in Blowers.

No. 120,929.

Patented Nov. 14, 1871.



Witnesses
Jno. A. Ellis.
G. V. White

Inventor
Wm. H. Bailey.
Per.
J. R. Alexander
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM H. BAILEY, OF MAHANOEY CITY, PENNSYLVANIA.

IMPROVEMENT IN BLOWERS.

Specification forming part of Letters Patent No. 120,929, dated November 14, 1871.

To all whom it may concern:

Be it known that I, WILLIAM H. BAILEY, of Mahanoe City, in the county of Schuylkill and State of Pennsylvania, have invented certain new and useful Improvements in the Construction of Fans for Forcing Air in Mines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a fan for blowing air down into the mines, and, by reversing the fan, to draw foul air out of the mines.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

A represents an upright shaft, upon which is placed a wheel composed of a series of large fans or wings, B B, and a series of smaller fans or wings, C C, arranged alternating. All of these fans or wings are inclined as shown—that is, one

edge is raised while the other is depressed. On the upper end of the shaft A is a pinion, D, which gears with a cog-wheel, E, placed upon a horizontal shaft, H. This shaft is provided both with a crank, G, and a pulley, I, so that either steam or other power may be employed, or it may be turned by hand.

By revolving the wheel B C in one direction good air is forced down, while if the wheel is reversed the foul air is drawn up.

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

A fan composed of a series of large wings, B B, and a series of smaller ones, C C, constructed as described, and arranged alternately to operate substantially as and for the purposes herein set forth.

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

WM. H. BAILEY.

Witnesses:

F. J. KETNER,
JOHN FARRELL.

(12)