

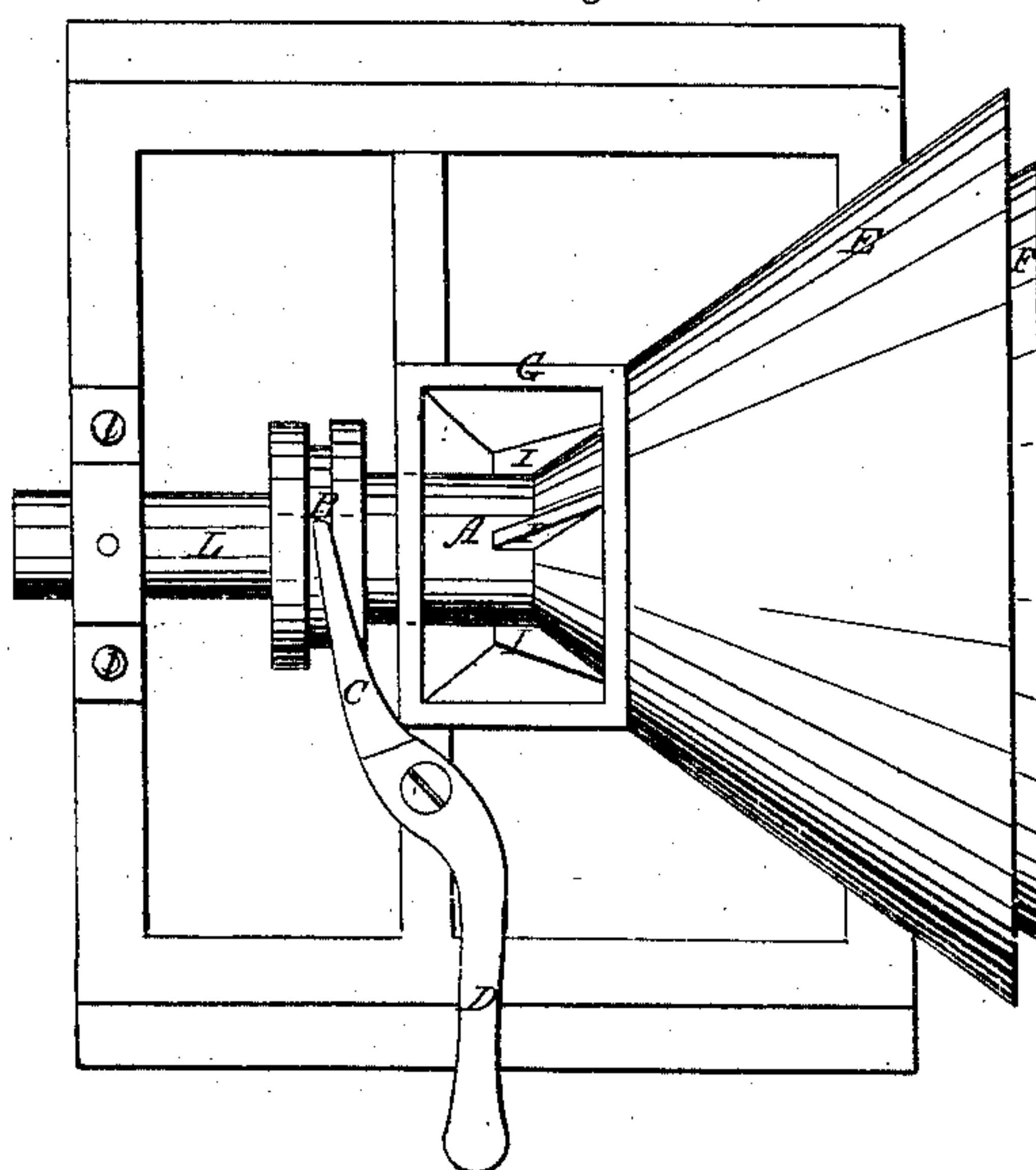
*J. Ross.*

*Feed Regulator.*

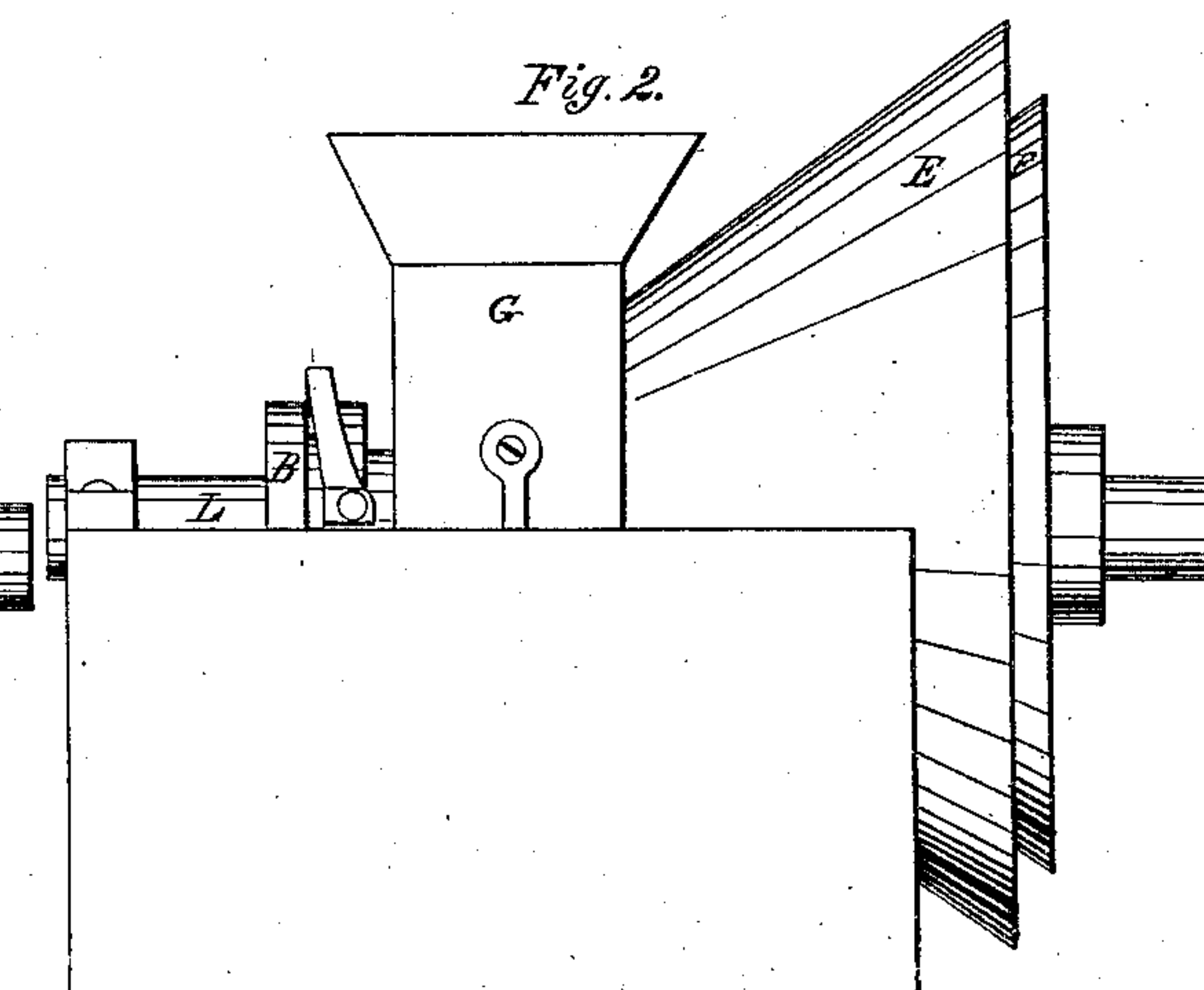
*N<sup>o</sup> 78,541.*

*Patented Jun. 2, 1868.*

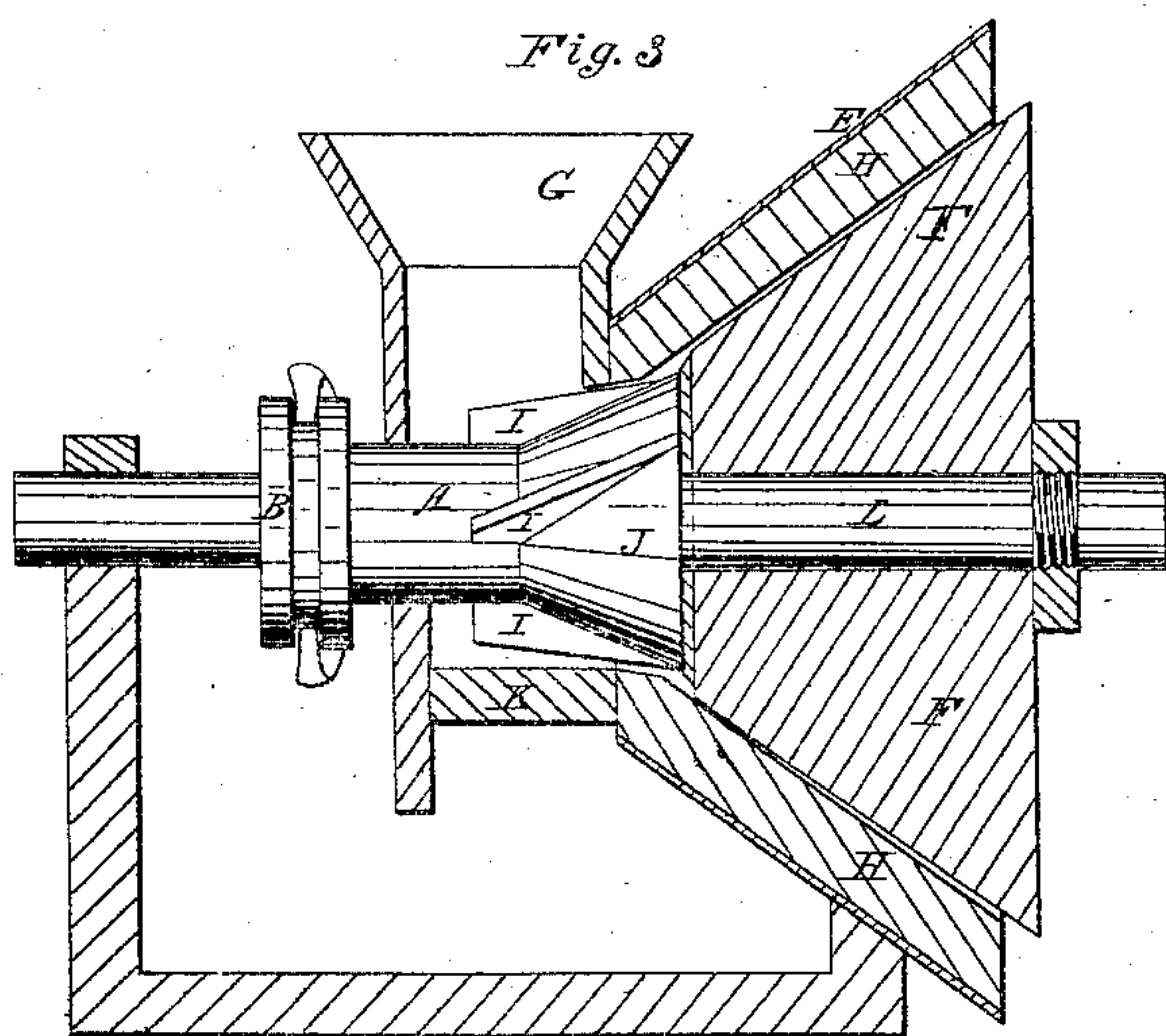
*Fig. 1.*



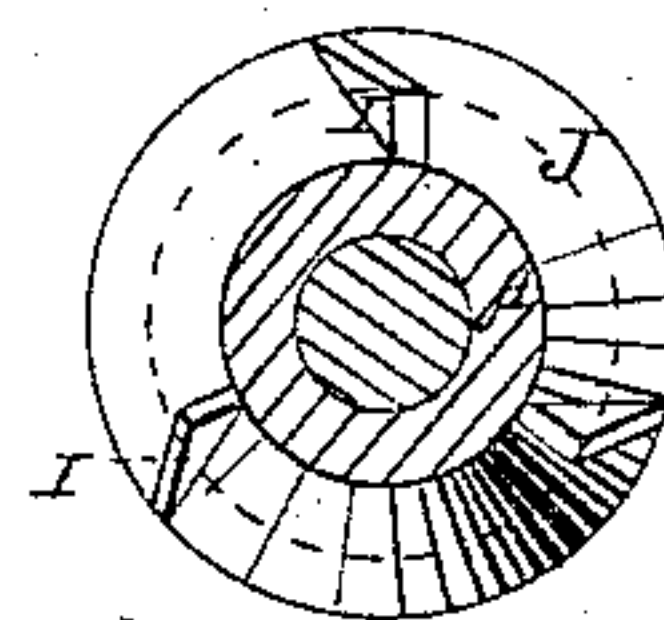
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Witnesses,*

*Allen G. Warren  
Jas. Shurtland*

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*John Ross*

# United States Patent Office.

JOHN ROSS, OF BROOKLYN, NEW YORK.

*Letters Patent No. 78,541, dated June 2, 1868; antedated May 25, 1868.*

## IMPROVED FEED-REGULATOR FOR MILLS.

*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, JOHN ROSS, of Brooklyn, E. D., county of Kings, and State of New York, have invented a new and useful Improvement in the Feed-Regulator for Conical Mills; and I hereby declare that the following is a full and exact description thereof.

To enable others to make and use my invention, I proceed to describe its construction and operation, reference being had to the drawings hereunto annexed, and making part of this specification.

Figure 1, bird's-eye view of the regulator applied to a burr-stone mill.

Figure 2, side elevation of the same.

Figure 3, section.

Figure 4, diagram, showing end view of the cone of the regulator.

The same letters refer to like parts in all the drawings.

A, the piece upon the shaft called the regulator.

B, channel in the collar.

C, a yoke-clasp sitting in the channel.

D, the lever of the yoke.

E, the outer casing of a burr-stone conical mill.

F, the cone.

G, the hopper.

H, the burr-stone female cone.

I, wings set spirally on the feed-cone.

J, outer edge of the feed-cone.

K, bottom of the hopper, a half cylinder in form, the feed-cone, with its wings, reaching down near to it.

L, the shaft.

This invention is intended to regulate absolutely the feed in a conical burr-stone mill, to admit little or much, at pleasure, or to close the throat altogether.

Upon the shaft L the regulator A, B, and J is set loose, to turn with the shaft. It is adapted at the end J to close the throat, so as to receive little or no grain into the mill.

The regulator is a collar. At one end is an enlargement, and in it a channel. At the front end the collar is enlarged in the shape of a cone, and has on it spiral wings, I, or wings set at an angle, to urge in the grain.

To move this back and forth at pleasure, a lever, C D, is hinged at one side of the shaft outside the hopper. The yoke-end of it clasps in the channel, and by the movement of the lever D, the regulator is moved forward or back, while the mill is in operation. The lever may be secured in place by any of the known devices.

The wings I act as a screw to urge forward the corn, and by centrifugal force to throw it in between the stones.

The "regulator" is made to revolve with the shaft by means of a feather or pin set into the shaft, with a corresponding slot or groove in the "regulator," which, while being carried round with the shaft, is free to move parallel with the shaft when acted upon by the "lever" D.

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

1. The use of the feed-regulator A, B, and J, to close partially or wholly the throat of a conical mill, in the manner described.

2. The combination of the cone J with its wings I, to direct the grain into the throat of the mill.

JOHN ROSS.

Witnesses:

OWEN G. WARREN,

J. D. STURTEVANT.