

# J. H. Aldrich. Flyer.

N<sup>o</sup> 83,436.

Patented Oct. 27, 1868.

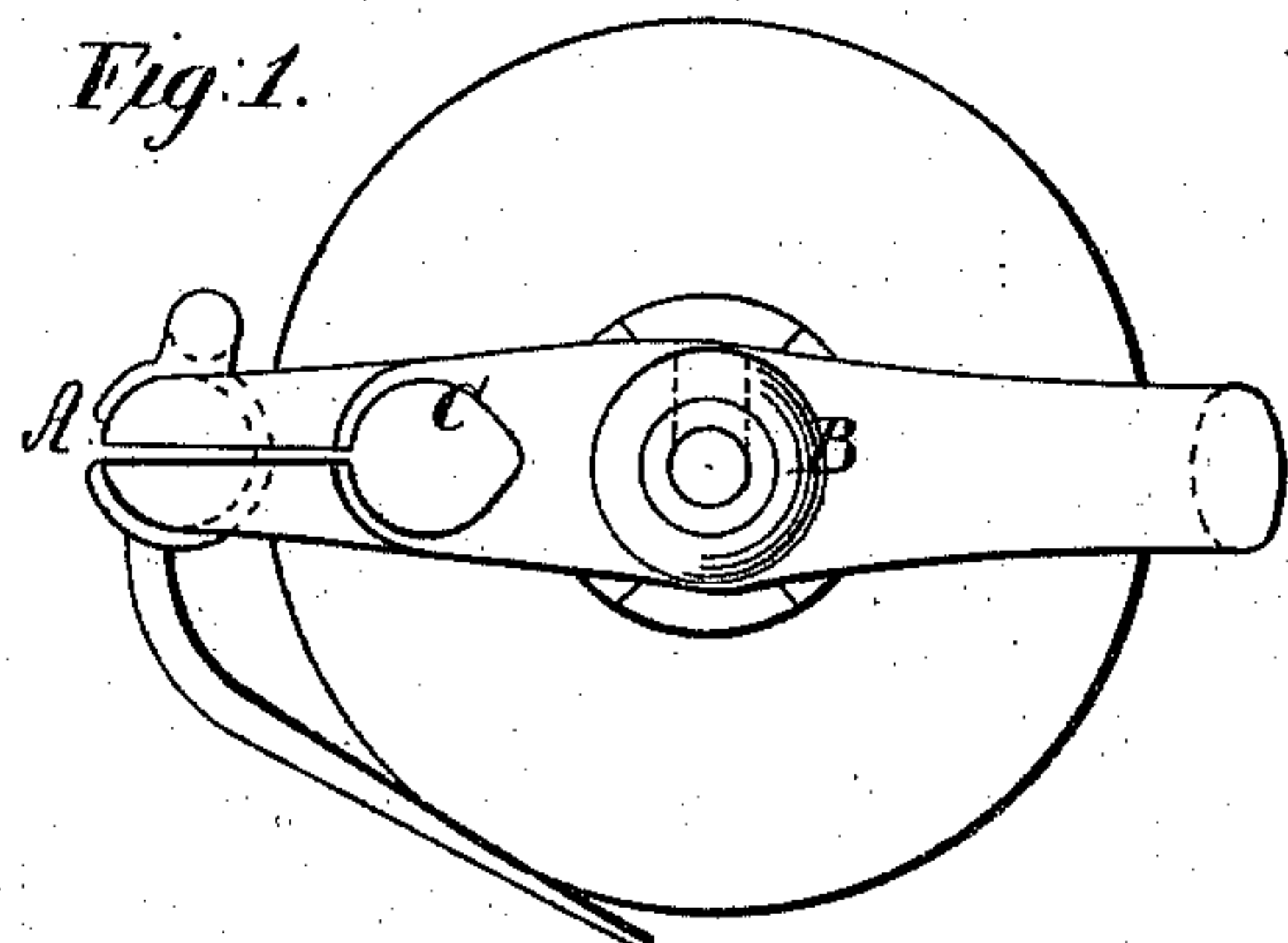


Fig. 5

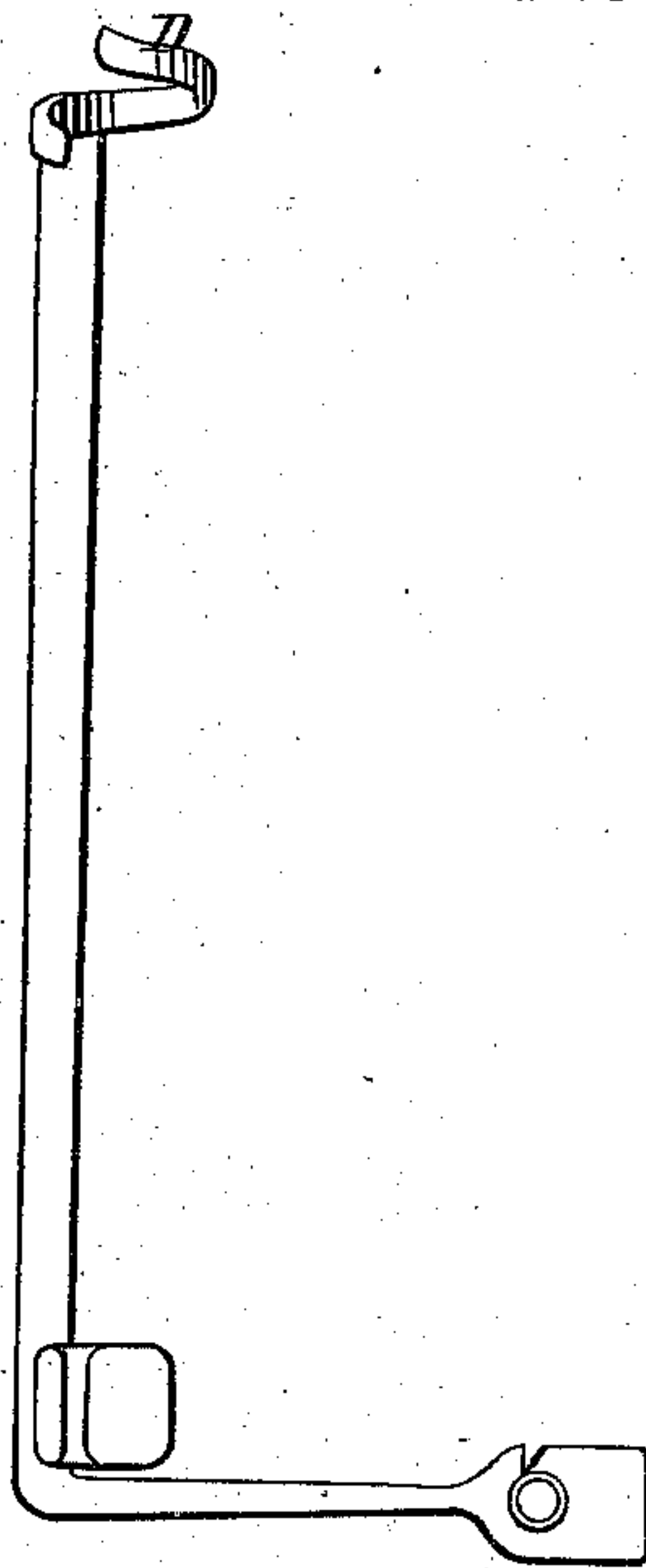


Fig. 2.

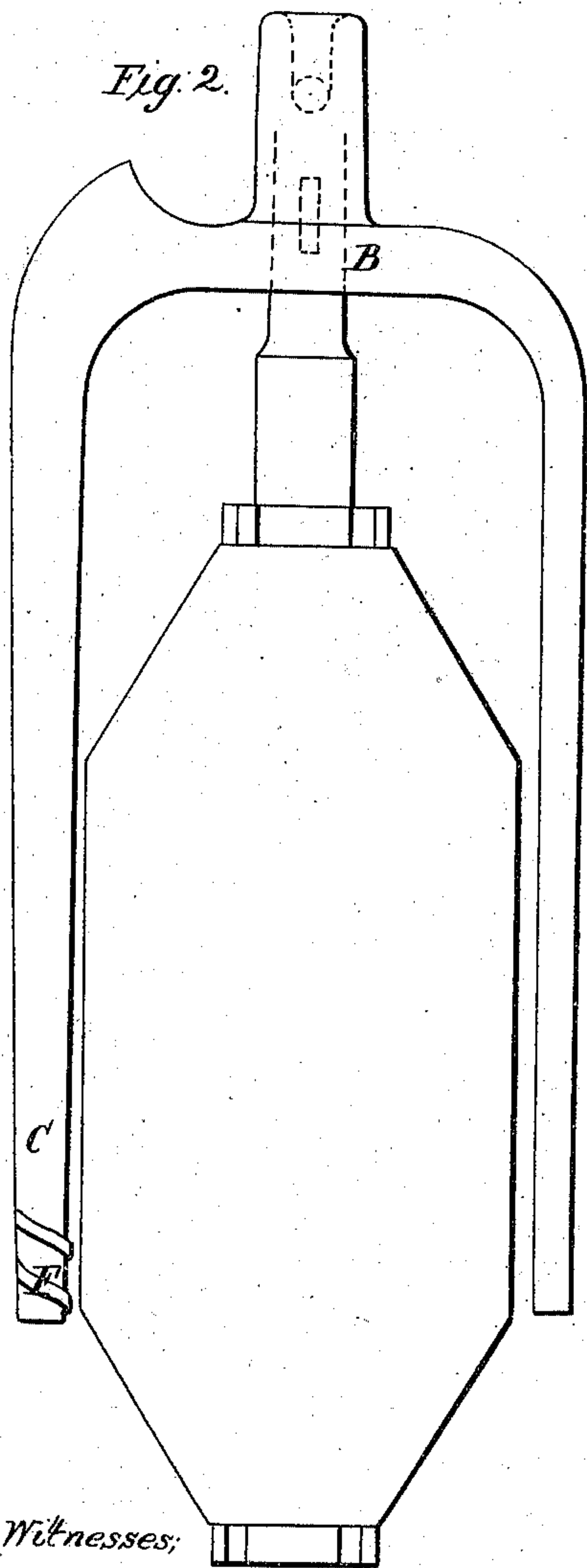


Fig. 3.

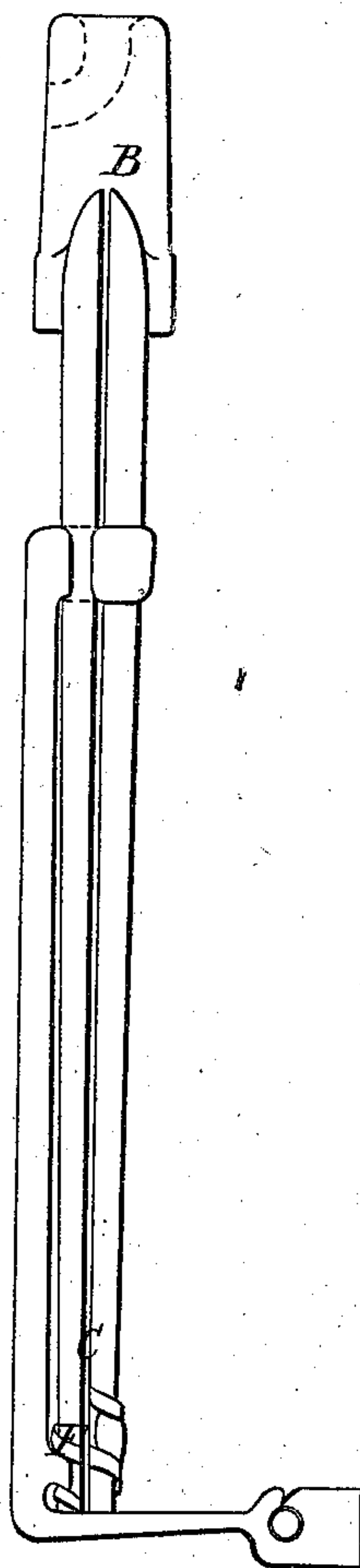
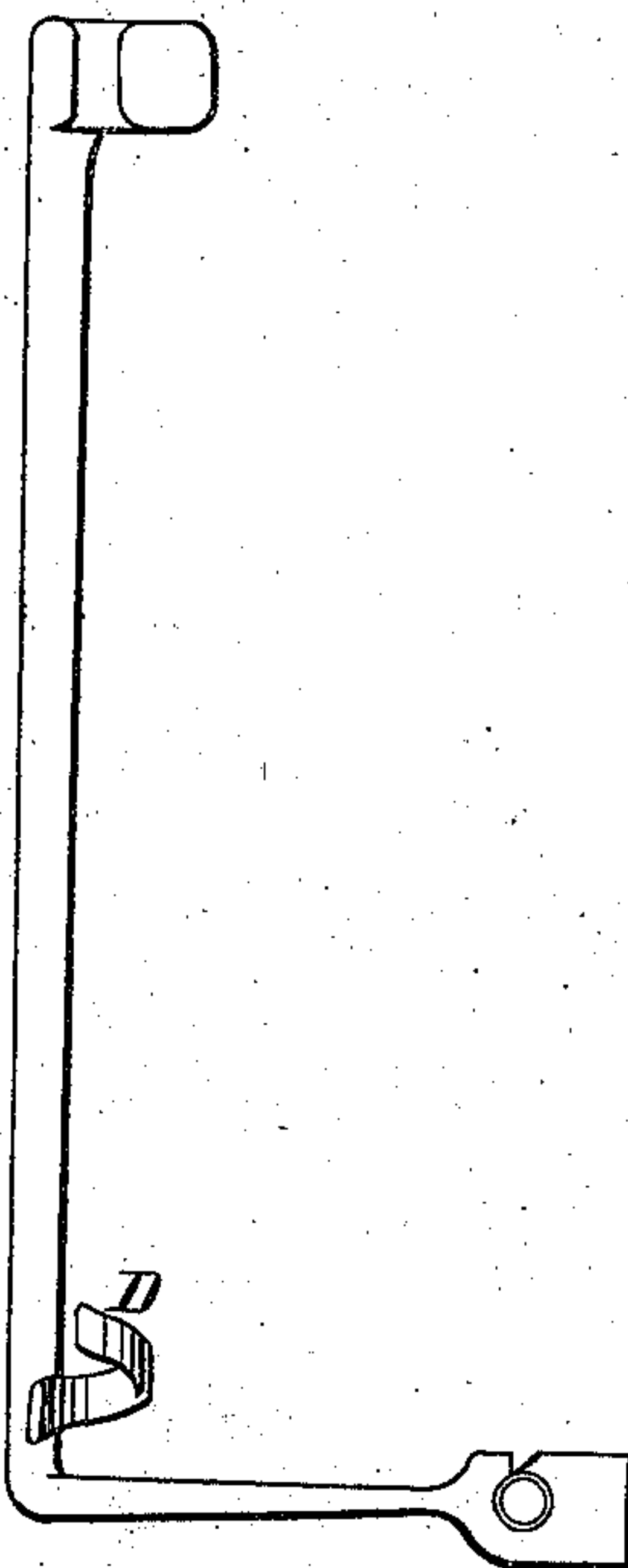


Fig. 4.



Witnesses:

H. B. O'pood  
J. W. Dudley

Inventor;

J. H. Aldrich

# United States Patent Office.

JOHN H. ALDRICH, OF NORTHBRIDGE, MASSACHUSETTS, ASSIGNOR  
TO HIMSELF AND JOHN C. WHITIN, OF SAME PLACE.

*Letters Patent No. 83,436, dated October 27, 1868.*

## IMPROVEMENT IN FLIERS FOR SPEEDERS.

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 H. ALDRICH, of Northbridge, in the county of Worcester, and State of Massachusetts, have invented a new and improved Flier for Speeders and like machines; and I do hereby declare that the following is a correct description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon.

Figure 1 is a plan of a flier and presser, showing also a full bobbin.

Figure 2 is a side elevation of the same, with the presser detached.

Figure 3 is an elevation of the side of the flier and presser, the bobbin not shown.

Figure 4 is a view of the presser detached from the flier.

Figure 5 is a modification of the same.

The fliers for speeders and fly-frames are either made so that the pressers are forced against the bobbin when winding on the roving, by springs, or by the centrifugal force produced by speed of the fliers. In the former case they are objectionable, because the operator, in piecing, uses one of his hands in holding back the presser, when it is desirable to have both hands in the operation of piecing. In the latter case, at least with all the centrifugal fliers with which I am acquainted, the presser is permanently secured to the flier, so that it cannot be removed with facility, for cleaning up, or for repairs.

To remedy these defects, and to make a flier which is more comely in form, economical in construction, effectual in operation, and convenient for repairs, is the object of my invention.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

B is a flier, made as they often are, except that on the arm C is formed a spiral groove, in which the worm D, on the presser, is made to slide, so that when the

presser-arm brings up against the bottom of the flier, it stops, and when turned the other way, detaches itself from the flier. These fliers are made so that any presser will fit any flier of the size to which it is adapted; and when a presser is broken, as they sometimes are by the flier getting loose, or out of its place on the spindle, when the frame is running, or worn out, any operative can renew it, without calling upon a machinist. The spiral, F, can be brazed upon the arm, or, if malleable, cast on; but as I propose to construct them, that part of the arm upon which the spiral is formed will be forged thicker, and after the thin, flat iron of the arm C is bent up into the rounded form, a revolving cutter will cut the spiral groove. The worm may be at the upper end, as shown in fig. 5, but it makes a lighter and neater flier to place it at the bottom.

I do not claim that this flier will do more or better work than some others; but it is the only one with which I am acquainted in which the flier and presser can be disconnected without the use of tools.

A very great advantage of this flier is, that uniformity is attainable, so that any presser will fit any flier of corresponding size, and can be immediately connected with each other.

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

The flier, substantially as described, having the arm of the flier and the detachable presser connected by a spiral guide and worm, so that when turning one way, the presser detaches from the flier when there is no bobbin or spindle for it to press against, and turning the other way, it stops by the presser-arm itself coming in contact with the end of the flier-arm, thus forming a more direct passage for the roving to the presser-arm, substantially as described.

J. H. ALDRICH.

Witnesses:

H. B. OSGOOD,  
P. W. DUDLEY.