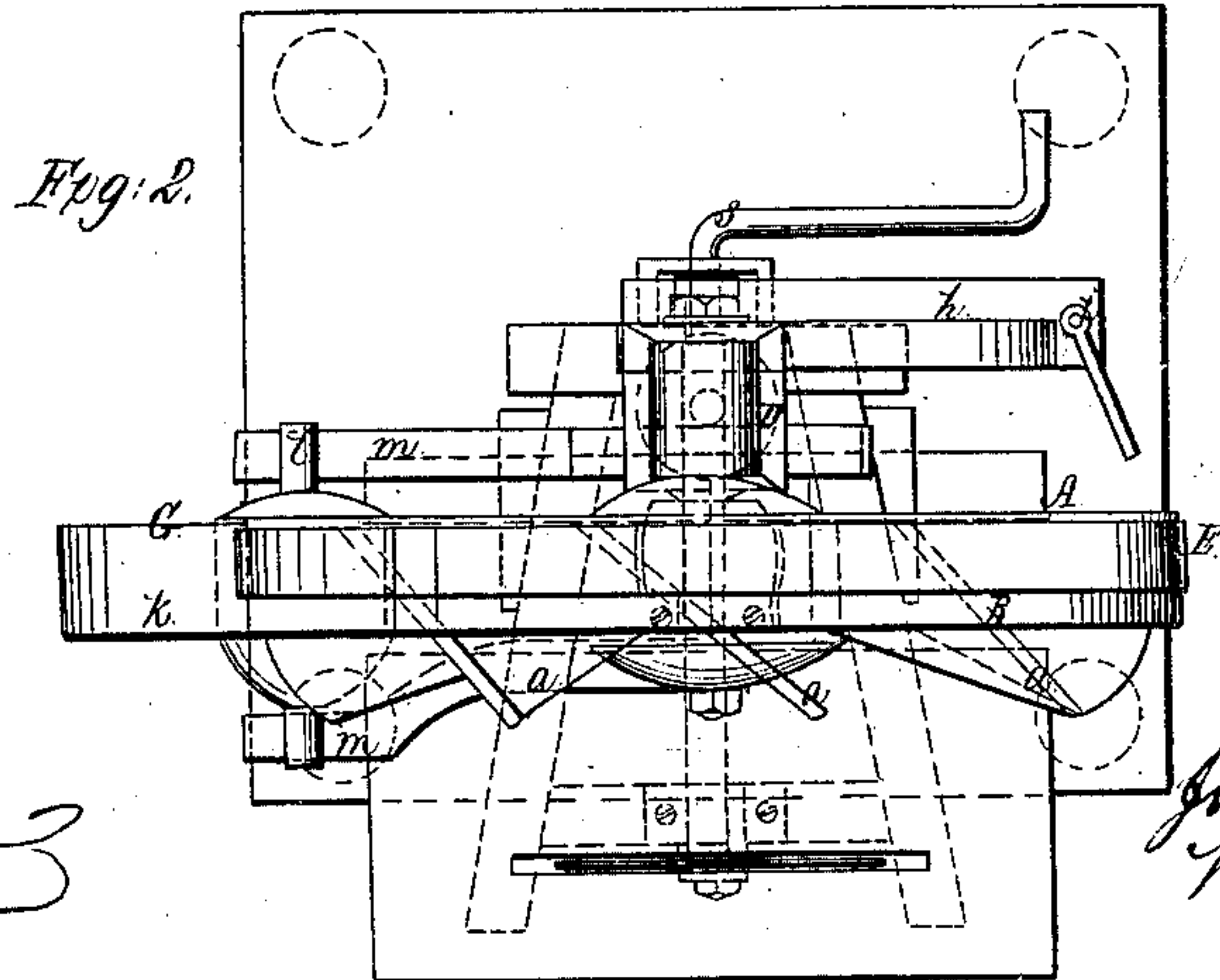
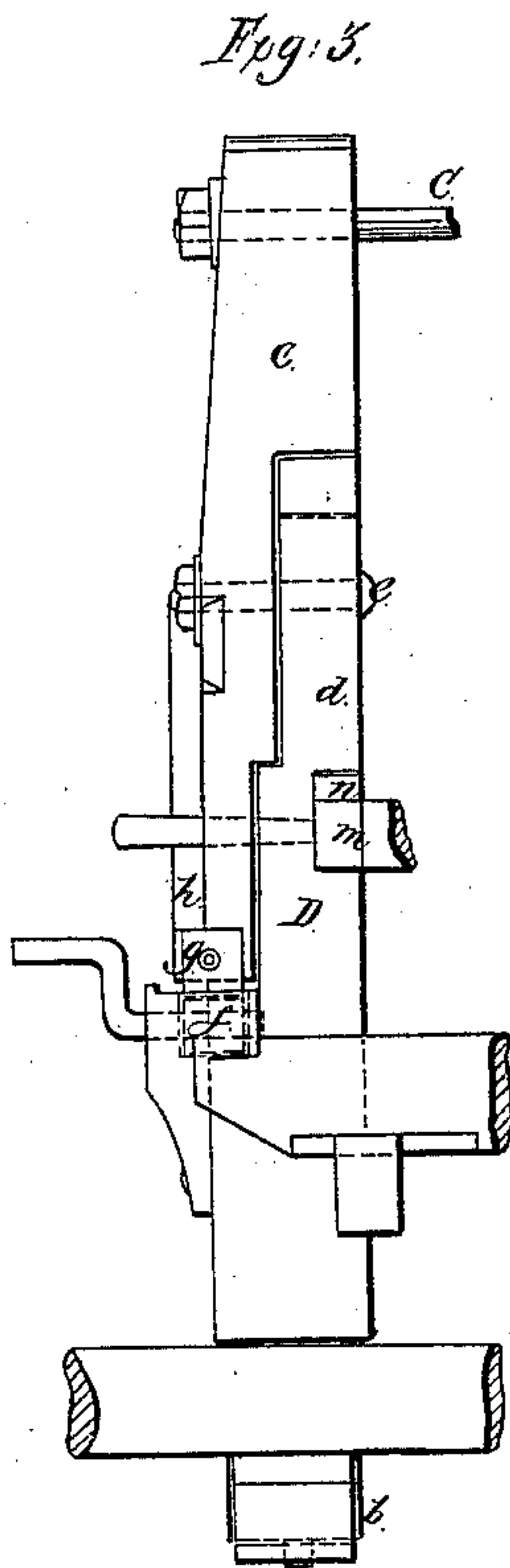
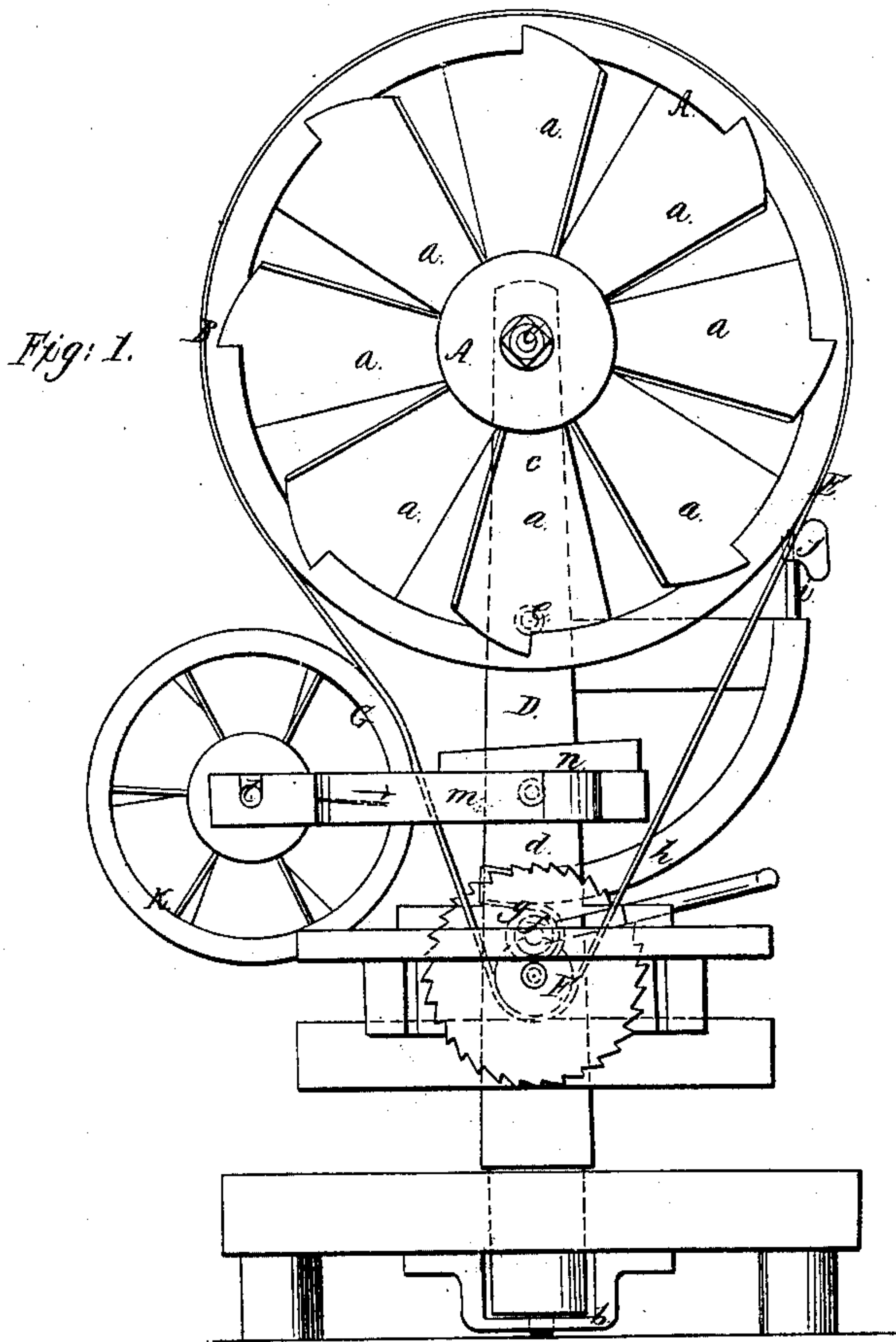


*J. Myers,*

*Wind Wheel,*

*N<sup>o</sup> 35,774.*

*Patented July 1, 1862.*



*Witnesses:*

*G. W. Reed  
Edw. H. Hodgson*

*Inventor:*

*John Myers  
per Munroe & Co  
Attorneys.*



# UNITED STATES PATENT OFFICE.

JOHN MYERS, OF DALLASTOWN, PENNSYLVANIA.

## IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. 35,774, dated July 1, 1862.

*To all whom it may concern:*

Be it known that I, JOHN MYERS, of Dalls-town, in the county of York and State of Pennsylvania, have invented a new and Improved Windmill; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a front elevation of my invention. Fig. 2 is a plan or top view of the same. Fig. 3 is a partial side elevation of the same.

Similar letters of reference in the three views indicate corresponding parts.

The object of this invention is to produce a simple, cheap, and effective device for the purpose of making the power of the wind available for cutting fire-wood or for driving small machines—such as churns, washing machines, &c.—that are generally used in farm-houses and by others.

This invention consists in the arrangement of a wind-wheel provided with an annular rim that is secured to the outer ends of the wings, and forms a belt-wheel from which motion is imparted to the saw-spindle or other device, in combination with a hinged rotary post, which is raised or lowered by a windlass or other suitable device in such a manner that by raising and turning said post to the wind the wind-wheel is brought in working position and at the same time the belt is stretched, and when the wind-wheel is not to be used it can be conveniently turned down, so as to release the belt and stop the motion of the whole device.

It consists, further, in the arrangement of a secondary flanged wind-wheel attached to a transversely-sliding adjustable arm, in combination with the belt running from the main wheel to the saw-spindle or other device in such a manner that an additional power is obtained, and at the same time the tension of the driving-belt can be regulated at pleasure.

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

The main wheel A is provided with an annular rim, B, which is secured to the outer edge of the wings *a*, and it rotates on a sta-

tionary axle, C, which projects from and is firmly inserted into the upper end of the post D. This post is stepped into a suitable socket, *b*, for that purpose made and provided, so that the same can freely turn and that the wheel A can be set to or from the wind, as may be desired. Said post is made of two parts, *c d*, the upper part, *c*, being connected with the lower part, *d*, by a pivot, *e*, so that the same, together with the wheel, can be turned up or down in a plane at right angles with the axle C. Its position is regulated by a windlass, *f*, that is attached to the lower part, *d*, of the post D, and which connects by a belt or chain, *g*, with the end of the hinged part *c* of the post D. When the main wheel is lowered down, the belt *g* winds on a quadrant, *h*, that extends from the end of the hinged section of the post up to a level with the pivot *e*, and by these means the belt is prevented from getting entangled or twisted. From the upper extreme edge of the quadrant *h* a pin, *i*, rises, which carries a small vane, *j*, for the purpose of determining the correct position of the main wheel in relation to the wind.

From the rim B of the main wheel A a belt, E, extends to a pulley, F, on the saw-spindle, or to the driving-pulley of any other machine or implement to be operated by the force of the wind. This belt may be sufficiently stretched when the main wheel A is turned up to its working position; but in order to be able to regulate the tension of said belt at pleasure, and at the same time to increase the power of the device, a secondary wheel, G, is added, which is constructed similar to the main wheel with a rim, *k*, which is secured to the outer edges of its wings. The axle *l* of this wheel has its bearings in a forked arm, *m*, which is secured in a mortise in the edge of the lower portion of the post D by means of a wedge, *n*, being so arranged that said arm can be drawn in or out and fastened in any desired position. When the belt E is in its place and the main wheel A is raised and the forked arm with the secondary wheel G is inserted, the surface of this secondary wheel will bear against the belt, as clearly shown in Fig. 1, and by moving the arm *m* in the direction of the arrow marked upon it in Fig. 1 the tension of the belt can be increased at pleasure. At the same time the action of the wind on the wings of the sec-

ondary wheel increases the power of the whole device.

This wind-wheel may be used to drive a circular saw, and in this case the belt E runs directly to the saw-spindle, and a small table supported by arms which extend from the lower part of the post D forms the support for the wood to be cut. A large quantity of kindling-wood can thus be cut in a comparatively short time and with little labor. It is obvious, however, that my windmill can be used with equal advantage for operating churns or washing-machines or other similar devices or implements.

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

1. The arrangement of hinged rotary post D and windlass *f*, in combination with belt E, running over the annular rim B of the wind-wheel A, constructed and operating substantially in the manner and for the purpose shown and described.

2. The arrangement of the secondary wind-wheel G and transversely-sliding adjustable arm *m*, in combination with the belt E and wind-wheel A, constructed and operating substantially in the manner and for the purpose specified.

JOHN MYERS.

Witnesses:

JOHN R. GREEN,

JONATHAN F. KELLER.