(No Model.)

H. R. STEVENS.

WIND ENGINE.

No. 258,496. Patented May 23, 1882.

Fig. 1.

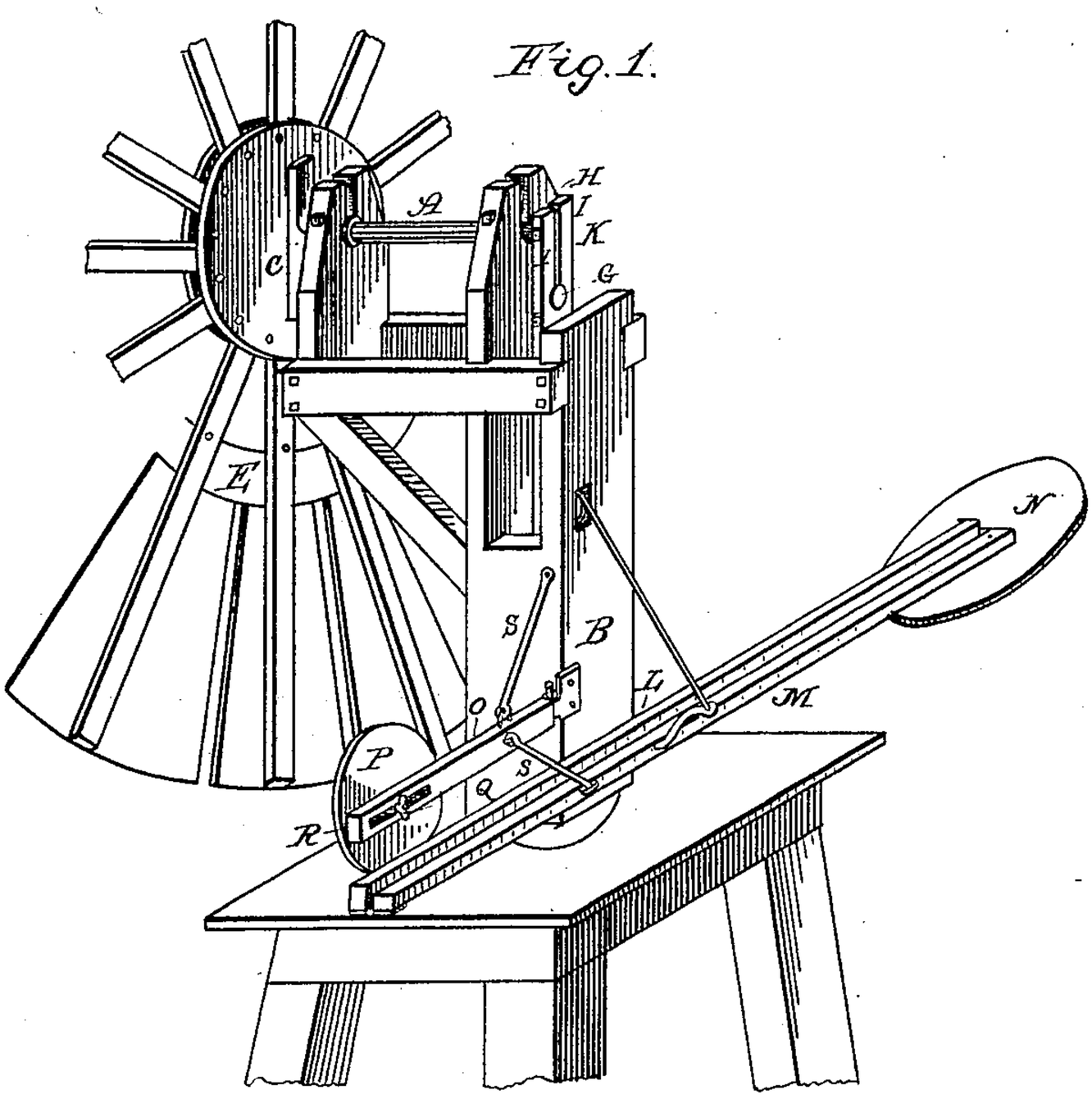


Fig. 2.

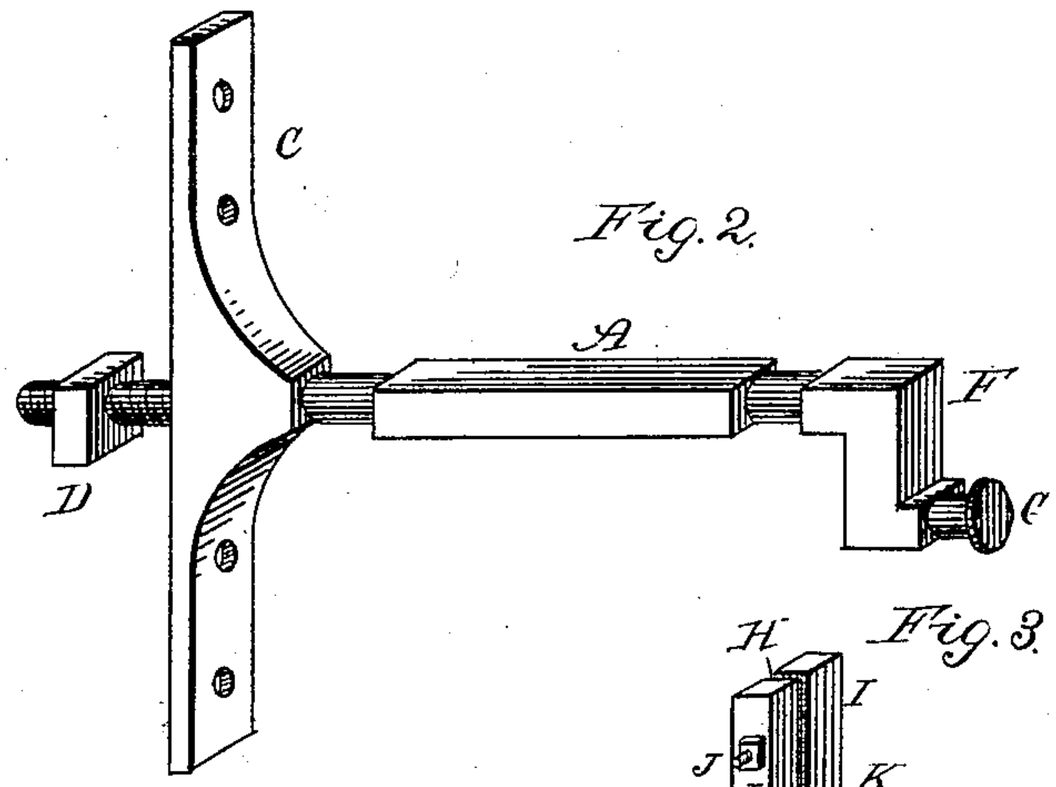
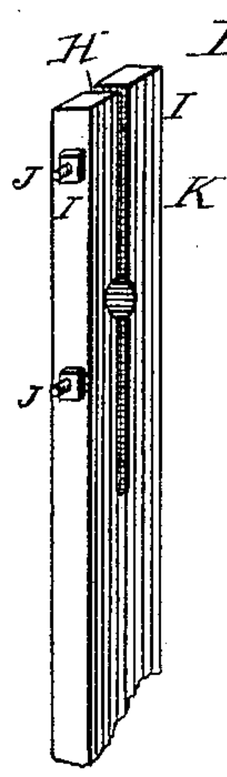


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

HARRY R. STEVENS, OF LOS ANGELES, CALIFORNIA.

WIND-ENGINE.

SPECIFICATION forming part of Letters Patent No. 258,496, dated May 23, 1882.

Application filed January 30, 1882. (No model.)

To all whom it may concern:

Be it known that I, HARRY R. STEVENS, of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Wind-Engines; 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, which form a part of this specification.

Figure 1 is a perspective view. Fig. 2 is a detail view, in perspective, of the crank-shaft detached. Fig. 3 is a detail view, in perspective, of the upper end of the pump-rod.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to wind-engines; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

The crank-shaft A of my improved windmill is mounted in suitable brackets or bearings at the upper end of the upright B. Said crank-shaft is provided near its front end with a cross-piece, C, forming an integral part thereof, and in front of said cross-piece it is threaded for the reception of a nut, D.

The wind-wheel E is adjusted upon the end of shaft A, and bolted or otherwise firmly secured to the cross-piece C, after which the nut D is adjusted and tightened. In this manner the wheel is secured to the crank-shaft very firmly, and without danger of becoming loose.

The crank F at the rear end of shaft A has a flat-headed pin, G, by which it is connected with the pitman or pump-rod K. The upper end of the latter, as shown in Fig. 3, is provided with a vertical slot, H, forming two legs, I I, which are connected, as shown, by bolts J J. In operation the crank-pin is adjusted in the slot H, where it may be secured, at any desired distance from the end of the rod or pitman K, by tightening the bolts J.

Secured to the rear side of the upright B, which must be mounted upon a suitable turntable, so as to be capable of revolving in a horizontal plane, is a horizontal bar or bracket, L, to the lower rear edge of which is hinged a similar bar, M, carrying at its outer end a horizontal vane, N.

O is a bracket, hinged to upright B so as to swing in a horizontal plane, and carrying at its outer end a vane, P, adjustable by a set-screw, Q, working in a slot, R, in said bracket. Bracket O is connected to the hinged bar M and to the upright B by pivoted rods S. When the wind is very strong, or when it blows in gusts, it throws the vane P back, the bracket O of said vane being connected to the hinged bar M. The latter turns upon its hinges until vane N assumes a vertical position. Being thus exposed to the full force of the wind, it causes the upright B to turn until the windwheel is turned entirely or partly from the wind.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a windmill, the combination, with the revolving upright B, having horizontal bracket L, of the bar M, hinged to said bracket, and having horizontal vane N, and mechanism for operating the same, substantially as set forth.

2. The combination of the revolving upright B, having bracket L, the bar M, hinged to the latter, and having horizontal vane N, the bracket O, hinged horizontally to upright B and having adjustable vertical vane P, and the pivoted connecting-rods S, all arranged and operating substantially as set forth.

3. In a wind-engine, the hinged bracket O, having slot R and vane P, adjustable by means of a set-screw, Q, working in said slot, as set forth.

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

HARRY R. STEVENS.

Witnesses:

C. H. DUNSMOOR,

OCTAVIUS MORGAN.