E. W. PHELPS.

Improvement in the mode of Balancing Pulleys.

No. 121,411. Patented Nov. 28, 1871.

Fig. 1.

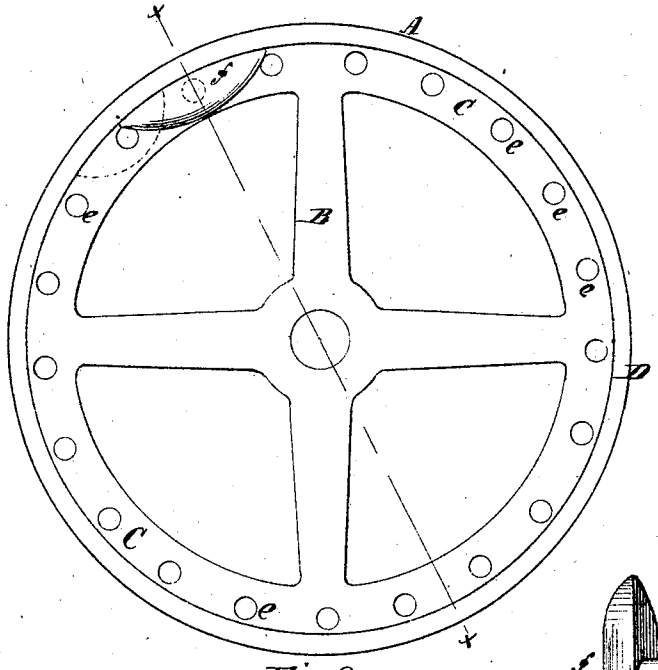


Fig. 3.

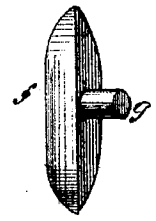
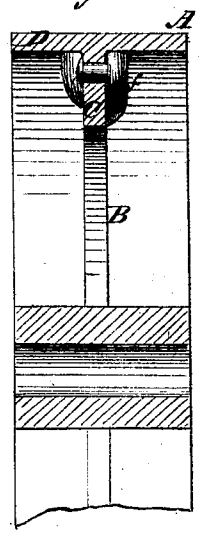


Fig. 2



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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

EBENEZER W. PHELPS, OF ELIZABETH, NEW JERSEY.

IMPROVEMENT IN THE MODE OF BALANCING PULLEYS.

Specification forming part of Letters Patent No. 121,411, dated November 28, 1871.

To all whom it may concern:

Be it known that I, EBENEZER W. PHELPS, of Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Balancing Pulleys, &c.; and I do hereby declare that the following is a clear, full, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and useful mode of balancing pulleys, fly-wheels, &c.; and consists in an interior flange containing holes or apertures for attaching weights for balancing the pulleys or other body, as will be hereinafter described.

In the accompanying drawing, Figure 1 is a side view of a pulley constructed according to my invention. Fig. 2 is a cross-section of Fig. 1 taken on the line *x x*. Fig. 3 is a view of the weight used detached.

Similar letters of reference indicate corresponding parts.

A is the pulley. B represents the arms or spider. C is a flange which projects from the inner side of the rim D of the pulley. This flange may project from the rim one inch, more or less, according to the size of the pulley. *e* represents holes through the flange, arranged substantially as seen in the drawing, so that one or more of the weights *f* may be applied to any part of the pulley or wheel, as may be required to make the same balance. This flange C corresponds with the arms, as seen in the drawing, and serves to strengthen the rim, and also serves to shorten and, consequently, strengthen the arms. The weights *f* may be made of lead, each with a stem, *g*, so that it can be readily riveted to the flange.

I do not confine myself to any particular form of weight or manner of attaching it. The weight may be made with holes, so that two may be placed opposite each other on the flange and both be fastened thereto by a single rivet. Instead of being continuous, the flange may be sectional; but I prefer a continuous flange as being better adapted to accurate balancing.

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

The flange C provided with holes or apertures *e*, more or less in number, in combination with a pulley or other revolving body, when used substantially as and for the purposes herein shown and described.

EBENEZER W. PHELPS.

Witnesses:

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(87)