(No Model.)

A. STUART.

HORSE POWER.

No. 277,375. Patented May 8, 1883.

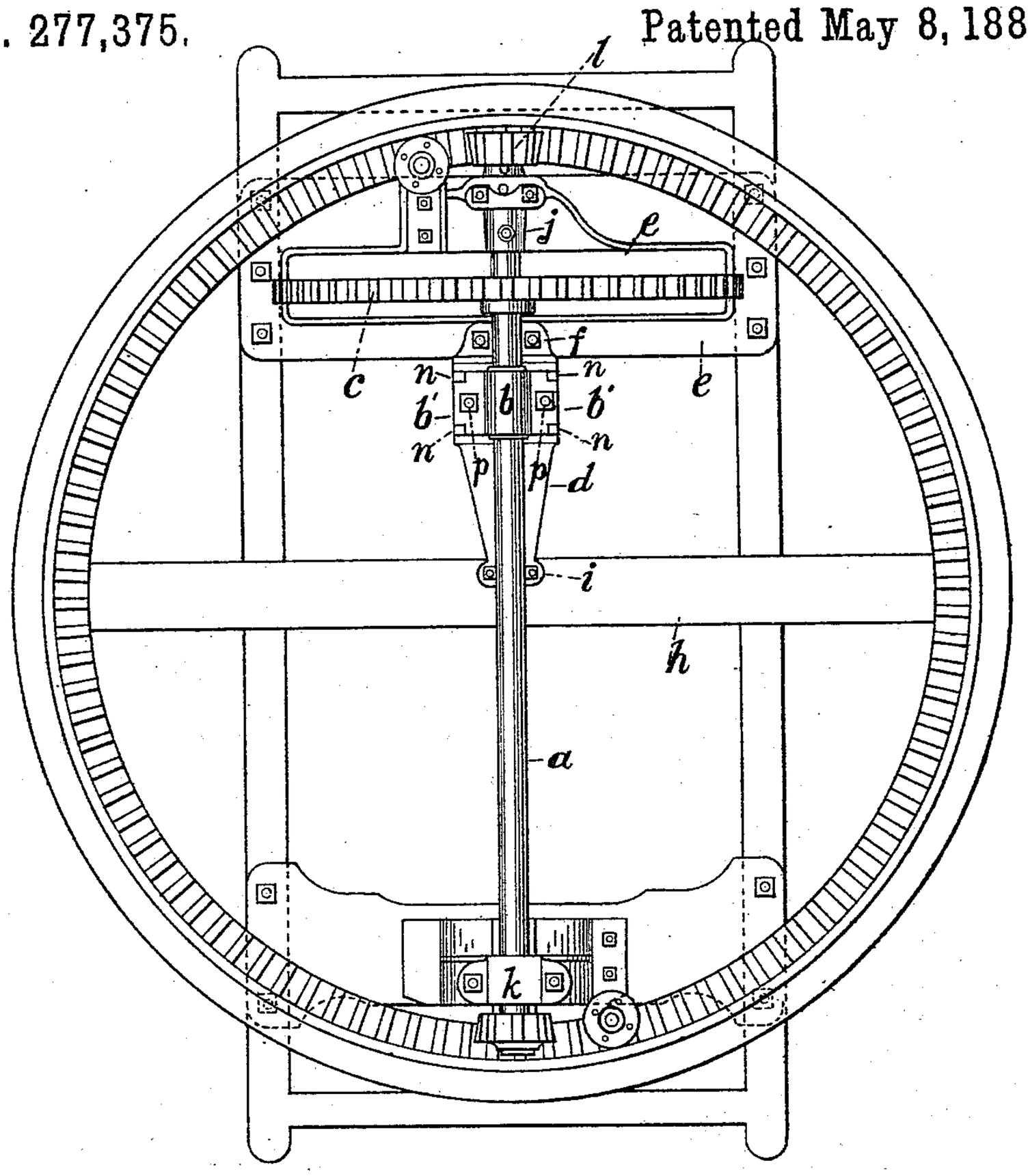
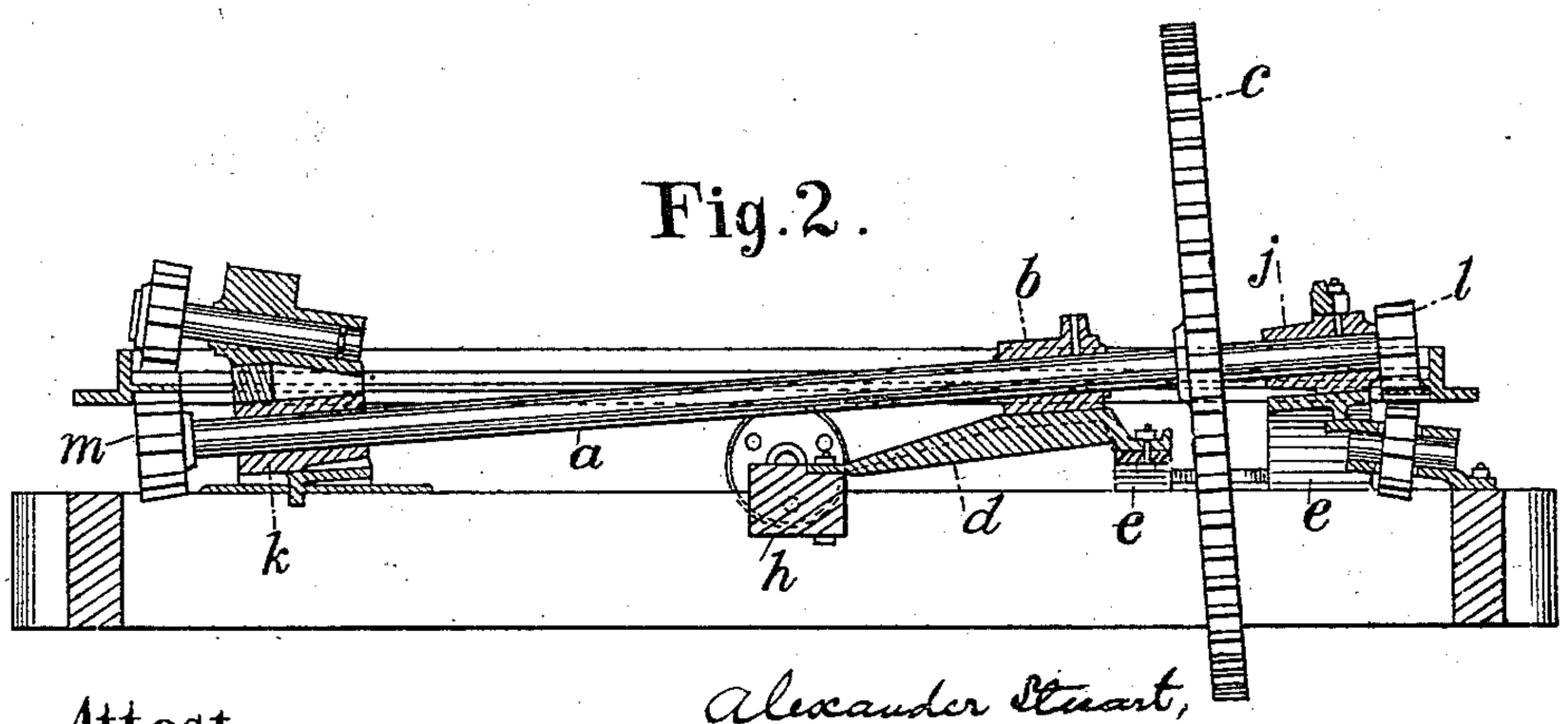


Fig. 1.

Fig. 2.



Attest:
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Inventor.
by Henry Millward
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UNITED STATES PATENT OFFICE.

ALEXANDER STUART, OF SPRINGFIELD, OHIO, ASSIGNOR TO THE SPRINGFIELD ENGINE AND THRESHER COMPANY, OF SAME PLACE.

HORSE-POWER.

SPECIFICATION forming part of Letters Patent No. 277,375, dated May 8, 1883.

Application filed March 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER STUART, of Springfield, county of Clarke, State of Ohio, have invented a new and useful Improvement in Horse-Powers, of which the following is a specification.

This invention is designed as an improvement on that type of horse-powers known as the "Woodbury Power;" and it consists in the construction and arrangement of parts as hereinafter fully specified.

In the accompanying drawings, Figure 1 is a plan view of a horse-power embodying my improvements, and Fig. 2 is a sectional elevation of the same. In these drawings I have omitted such parts of the machine as are not necessary to a perfect understanding of my improvements, and letters of like character indicate corresponding parts in each of the figures.

With machines of this character as formerly constructed the gear-shaft *a* was very liable to spring out of alignment, thereby partially destroying the usefulness of the machine. To obviate this difficulty I employ a bearing, *b*, that is located close to the transmitting gear-wheel *c*. This bearing is mounted on an arch, *d*, that is secured to the metallic frame *e* at *f*, and to the cross-tie *h* at *i*, by which construction and arrangement I have three bearings, *j k b*, for the support of shaft *a*. Two of these bearings are close to and on each side of the wheel *c*, which enables me to hold the pinions *l m* and wheel *c* to their work and in proper alignment. The bearing *b* is not cast in a piece with the arch *d*, but is secured to it by means of slides *b' b'*, that fit into ways *n n'*, formed on the arch *d*, and screw-bolts *p*, that pass through the aforesaid bearing and arch. It is obvious that with this construction the bearing *b* may be renewed at any time without disturbing the arch *d*, which forms a rigid support for said bearing. The arch *d* is secured to the metallic frame *e* at one end and to the cross-tie *h* at the other by screw-bolts. It will be easily understood that with such a construction and arrangement of parts the shaft *a* may be of less diameter than it could be if the bearing *b* were not employed, and at the same time it would, when so reduced and supported, be less liable to spring and throw the gearing out of mesh.

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

1. In a horse-power mechanism having the frame *e* and cross-tie *h*, the combination of the shaft *a*, supported by end bearings, *j k*, and carrying the pinions *l m* and gear-wheel *c*, with the arch *d*, in line with the said shaft, and having one end secured to the frame *e* and the other end to the cross-tie *h*, and the bearing *b*, attached to the arch, substantially as and for the purpose specified.

2. In a horse-power mechanism, the combination of the frame *e* and cross-tie *h* with the shaft *a*, supported in end bearings, the arch *d* in line with the said shaft, and having one end secured to the frame *e* and the other end to the cross-tie *h*, and the bearing *b*, detachably secured to the arch by slides *b'* and screws *p'*, substantially as described.

In testimony whereof I have hereunto set my hand this 23d day of March, 1883.

ALEXANDER STUART.

Witnesses:

HENRY MILLWARD,

L. H. PURSELL.