

(No Model.)

W. H. HOOKER.
Horse-Power Machines.

No. 227,900.

Patented May 25, 1880.

Fig 1.

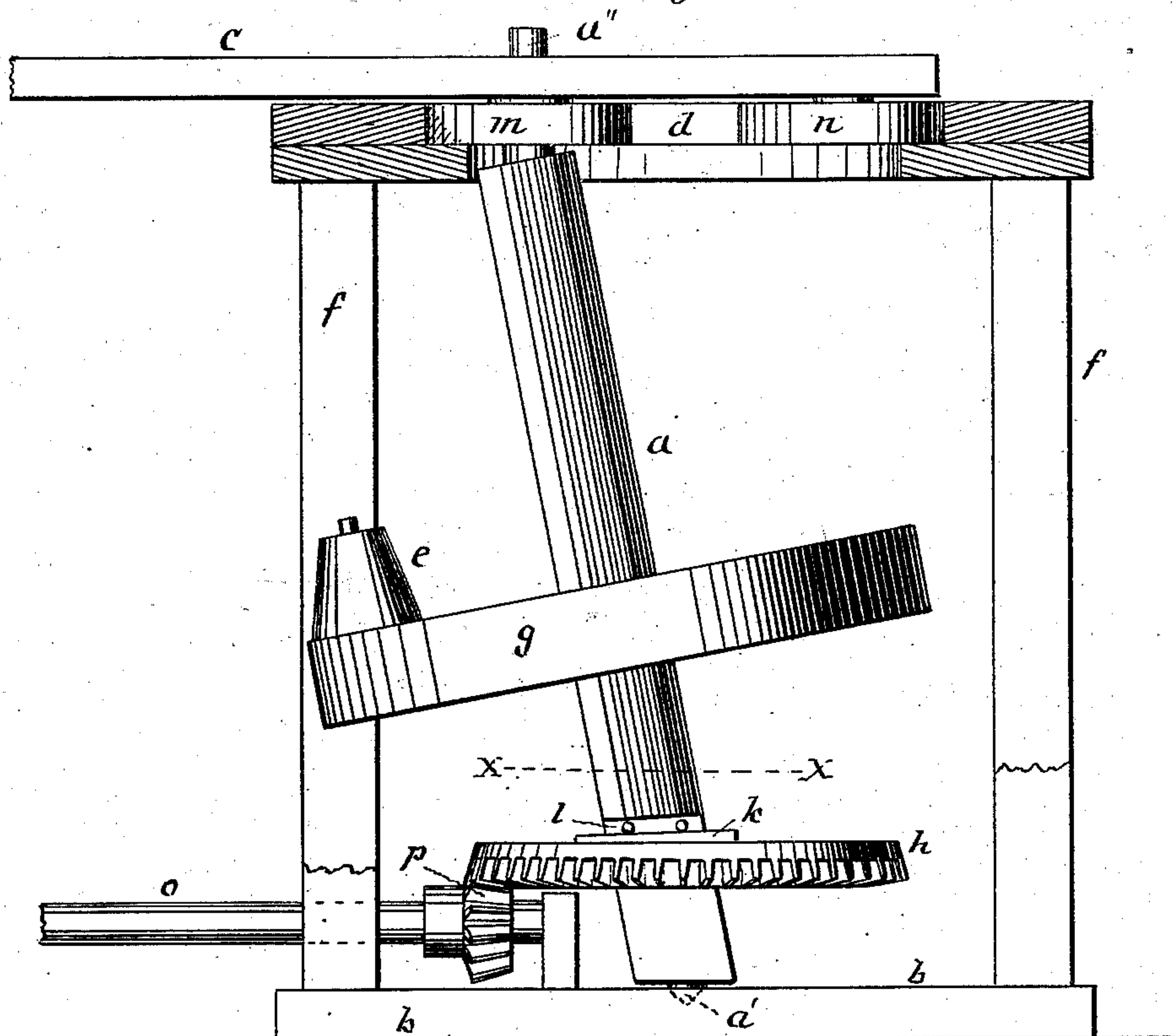
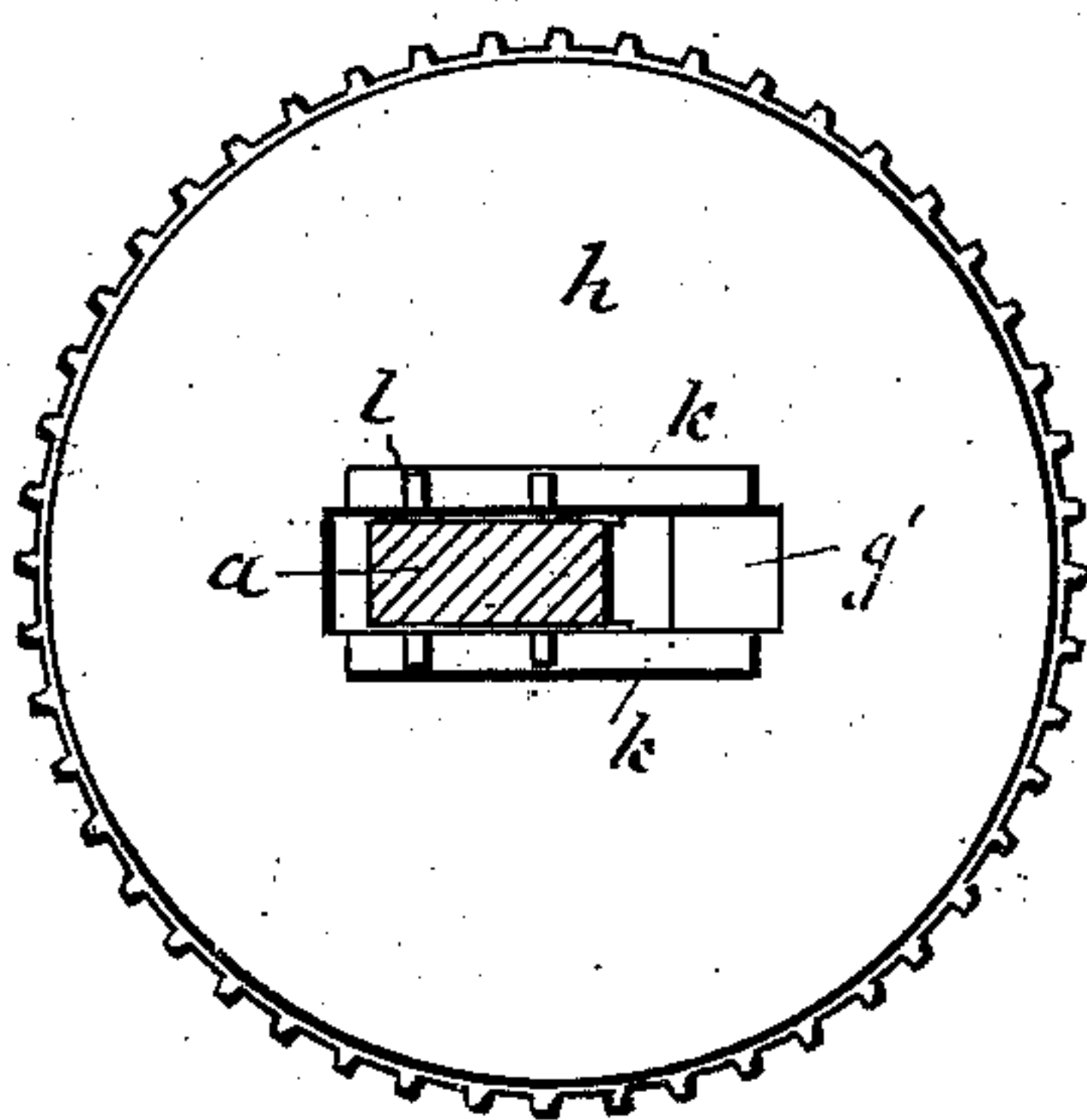


Fig 2.



Witnesses:

J. M. Collins.

Frank Moore.

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UNITED STATES PATENT OFFICE.

WILLIAM H. HOOKER, OF LONE OAK, TEXAS.

HORSE-POWER MACHINE.

SPECIFICATION forming part of Letters Patent No. 227,900, dated May 25, 1880.

Application filed April 5, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HOOKER, of Lone Oak, in the county of Hunt and State of Texas, have invented certain new and useful Improvements in Horse-Power Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a simple and effective machine suitable for driving flouring-mills, and agricultural and other machines; and it consists of an inclined shaft carrying a heavy weight fixed eccentrically as to its axis, and a cog-wheel the plane of which is horizontal, and consequently forms an acute angle with the inclined shaft. This cog-wheel is also eccentric, and meshes into a pinion on the driving-shaft.

The shaft is driven by horse-power applied to a lever, and the upper end of the shaft travels in a circular track, thus causing the shaft to describe the surface of a cone. As the inclined shaft travels in its conical path the heavy eccentric weight tends to remain in its lowest position, and in doing so causes the inclined shaft to rotate once on its own axis in traveling once around its conical path.

The cog-wheel on the inclined shaft transmits the power through the pinion to the driving-shaft.

Figure 1 is a side elevation of my machine, part of the frame being in cross-section; and Fig. 2 is a view of the eccentric cog-wheel, taken on the line xx of Fig. 1.

a is the inclined shaft, the lower end of which has a conical pivot, a' , resting in a proper socket on the platform b , and the upper end of the shaft has a pin, a'' , which passes through the lever c at a point a short distance from one end of the lever.

There is a small roller, m , on the pin a'' and a similar roller, n , on a pin at the end of the lever, and these two rollers travel in the circular track d . This circular track or groove

is horizontal, and is properly supported by the frame f , and it is placed so that the center will be vertically over the pivot-point a' of the shaft.

The horse is attached to the long arm of the lever c .

At any convenient point of the shaft there is located a heavy weight, e , placed eccentric to the shaft, and as far from the shaft as is practical. In the present case the shaft has a wheel, g , which carries the heavy weight E , fastened to it at a point near its periphery; but the same thing may be accomplished in a number of different ways.

The cog-wheel h is placed near the bottom of the shaft and at an angle with and eccentric to the shaft. The cog-wheel h is adjusted so that it will be horizontal, and the axis of the cone described by the inclined shaft will pass through its center. To provide for this adjustment the cog-wheel has the slot g' , through which the shaft passes, and the shaft has horizontal grooves on either side, in which the sides of the slot g' can slide.

The beveled cog-wheel is clamped to the shaft by means of the wedges k , which are driven in between the wheel and pins l , which pass through the shaft or shoulders on either side of the shaft. In this way the cog-wheel can be properly adjusted and then clamped.

The shaft o , which drives the machinery or transmits the power to any desired point, is supported in proper bearings, and has the beveled pinion p , which meshes into the large beveled cog-wheel h .

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

1. The combination of the inclined shaft a , having the heavy weight e and cog-wheel h , with mechanism for rotating the inclined shaft, driving-shaft o , and pinion p , substantially as and for the purpose set forth.

2. The inclined shaft a , having the heavy eccentric weight e , in combination with the lever-arm c and circular track d , substantially as and for the purpose set forth.

3. The combination of the inclined shaft a , weight e , and lever c with rollers m and n , circu-

lar track *d*, cog-wheels *h* and *p*, and shaft *o*, all substantially as and for the purpose set forth.

- 5 4. The inclined shaft *a*, having the eccentric cog-wheel *h*, placed at an angle with the shaft, in combination with the pinion *p* and shaft *o*, all substantially as described, and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of 10 March, A. D. 1880.

W. H. HOOKER.

Witnesses:

J. E. COATS,
L. P. HARAIN.