

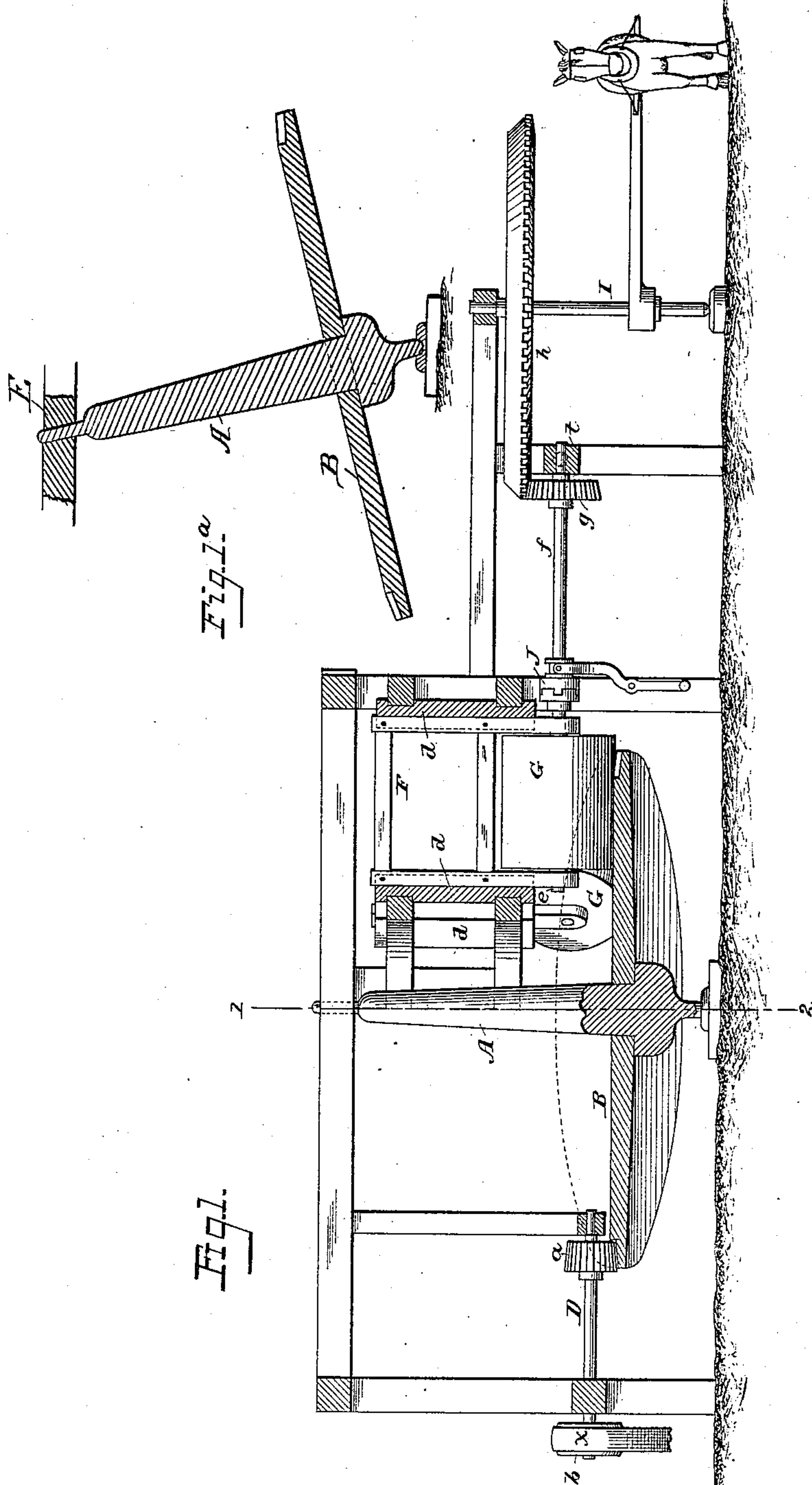
(No Model.)

2 Sheets—Sheet 1.

M. E. COX.
ANIMAL POWER.

No. 309,821.

Patented Dec. 30, 1884.



Attest:
Count. A. Cooper.
Jm. J. Jayers.

Inventor:
Matison E. Cox
By. Foster & Freeman
attys

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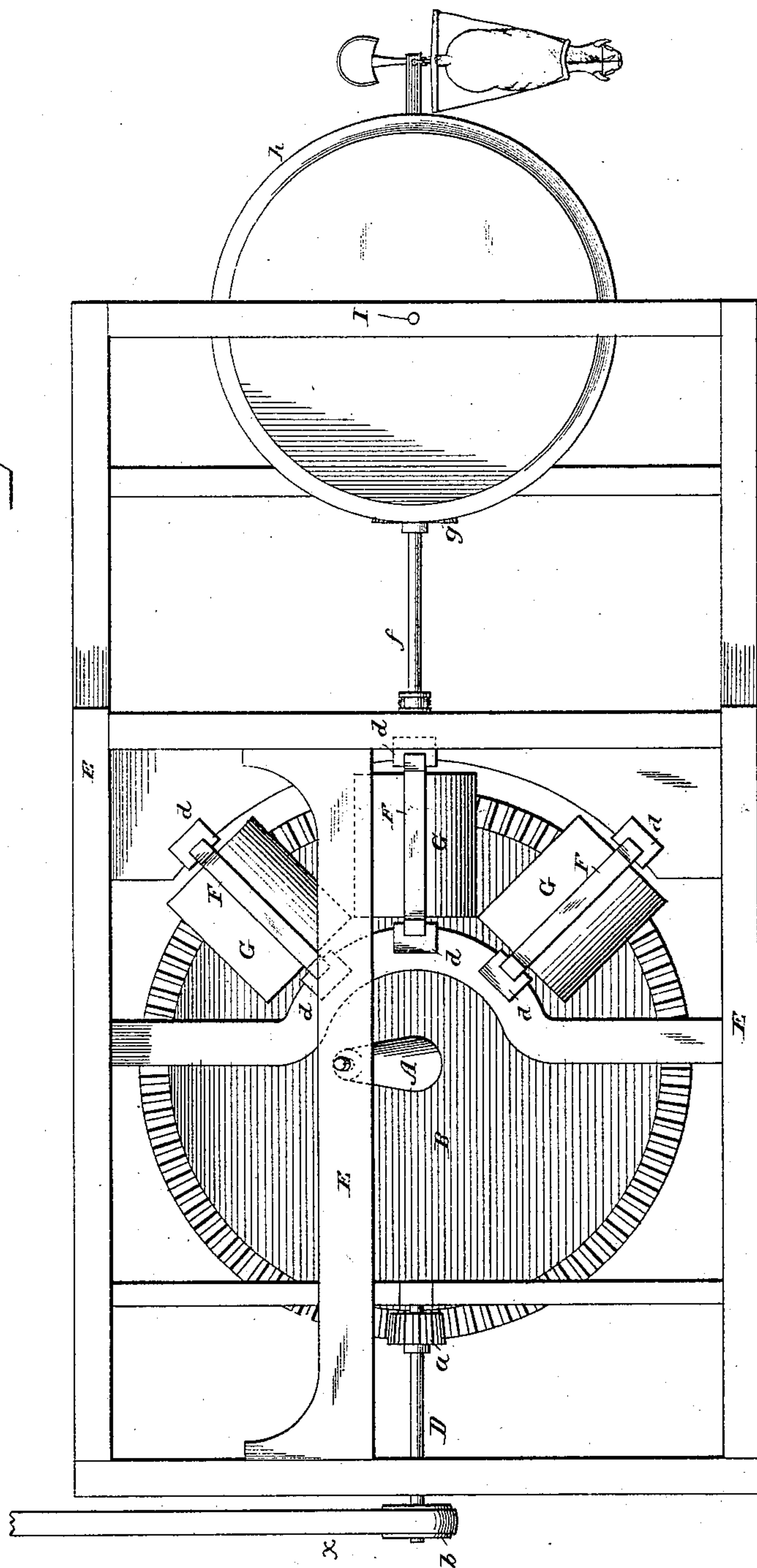
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Fig. 2.



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UNITED STATES PATENT OFFICE.

MATISON E. COX, OF CROWVILLE, LOUISIANA.

ANIMAL-POWER.

SPECIFICATION forming part of Letters Patent No. 309,821, dated December 30, 1884.

Application filed October 9, 1884. (No model.)

To all whom it may concern:

Be it known that I, MATISON E. COX, a citizen of the United States, and a resident of Crowville, in the parish of Franklin and State of Louisiana, have invented certain new and useful Improvements in Animal-Powers, of which the following is a specification.

The object of my invention is to secure a more uniform motion, less liable to shocks and interruptions, than results from connecting horse-powers directly to the machines to be driven, and this object I effect by interposing between the horse-power and the driving-pulley a revolving disk and a cylinder or cylinders, as fully set forth hereinafter, and as illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional elevation of my improved horse-power, and Fig. 1^a is a sectional elevation of the inclined shaft and disk taken on the line 1 and 2 of Fig. 1; Fig. 2, a plan view of Fig. 1.

A is a shaft, which is set in an inclined position and supported to revolve in suitable bearings, and which carries an inclined disk, B, which gears or is in frictional contact with a pinion or roller, *a*, upon a shaft, D, carrying a pulley, *b*.

In guides *d d*, secured to the frame E of the machine, slides vertically a frame, F, in the lower ends of the side strips of which turns the shaft *e* of the heavy cylinder or roller, G, which bears upon the face of the disk B, so as to revolve in frictional contact therewith. A shaft, *f*, supported in suitable bearings of the frame, may be thrown into and out of connection with the shaft *e* by means of a clutch device, J, and a pinion, *g*, upon the shaft *f* gears with a toothed wheel, *h*, upon a vertical shaft, I, of a suitable horse-power. Upon motion being imparted from the horse-power to the shaft *f*, and upon the latter being thrown into connection with the shaft *e* rotation will be imparted to the cylinder G, and the disk B will be caused to revolve and impart a rapid rotary motion to the driving-pulley *b*, from which a belt, *x*, extends to the mill or other apparatus to be driven.

The disk B and roller G, interposed between the horse-power and the pulley *b*, serve instead of an ordinary balance-wheel to secure a uniformity of motion, and to prevent those sudden vibrations which are apt to ensue from changes in the resistance at the machine to which power is imparted. This results from the weight and momentum of the cylinder G, which, after it has once acquired its normal velocity, will tend to maintain a uniform motion, and also from the frictional contact of the cylinder and disk, which permits a slight movement of the disk independently of the cylinder, so that should the belt break, or the machine driven be suddenly stopped, the shock would not be transferred to the horse. Where greater momentum is required, one, two, or more cylinders, G, may be employed.

In order that the cylinders may maintain their frictional contact with the disk B the frames F have a free play, and the bearing *t* of the shaft *f* is pivoted so that said shaft may follow the movement of the frame of the driving-cylinder.

I claim—

1. The combination, in a horse-power, of a pulley, *b*, an interposed inclined shaft, A, disk B, carried by the shaft, and one or more frames F, sliding in bearings upon the frame of the machine, and carrying cylinders G, arranged to bear upon the disk B, one of said cylinders being connected to the driving-shaft of the horse-power, substantially as set forth.

2. The combination, in a horse-power, of a pulley, *b*, inclined disk carried by an inclined revolving shaft, and one or more cylinders bearing upon the disk carried by frames sliding in guides upon the frame of the machine, and connected to be driven by the horse-power, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MATISON E. COX.

Witnesses:

W. N. ROSSENDALE,
J. W. WOMBLE.