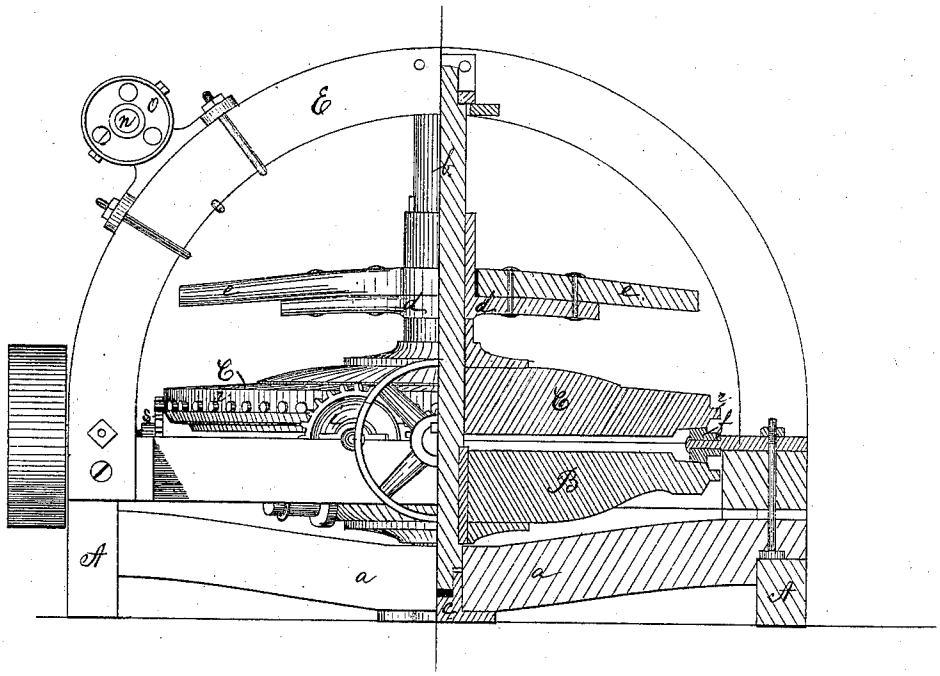
2 Sheets--Sheet 1.

J. MÜLLER.

Horse-Powers.

No. 135,439. Patented Feb. 4, 1873.



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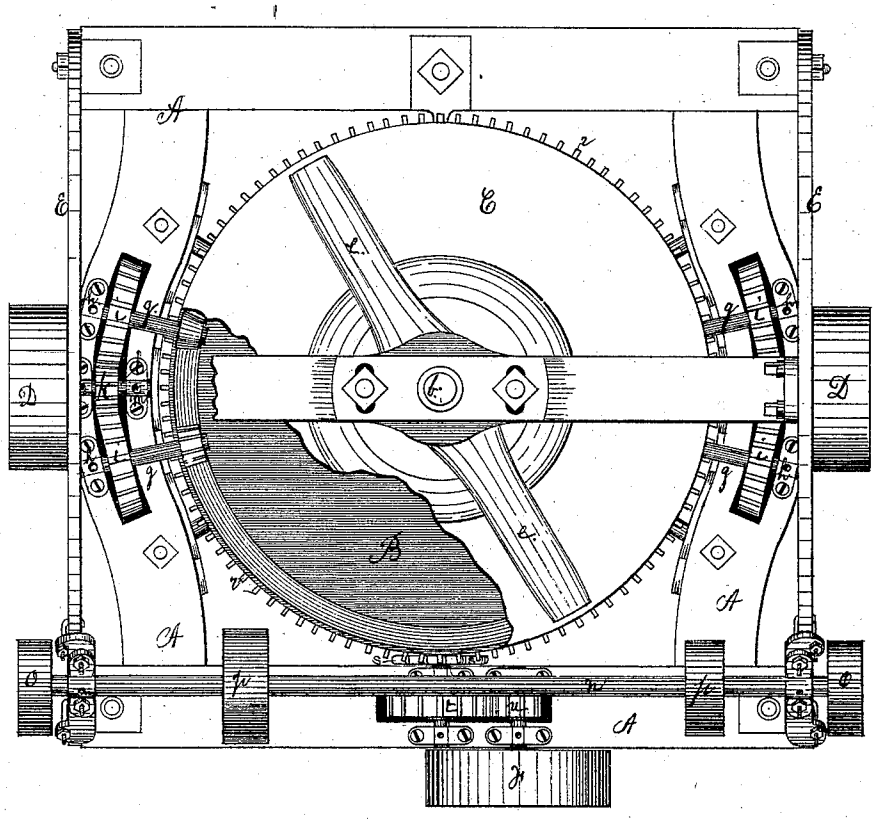

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UNITED STATES PATENT OFFICE.

JOSEPH MÜLLER, OF NACOGDOCHES COUNTY, TEXAS.

IMPROVEMENT IN HORSE-POWERS.

Specification forming part of Letters Patent No. **135,439**, dated February 4, 1873.

To all whom it may concern:

Be it known that I, JOSEPH MÜLLER, of the county of Nacogdoches and State of Texas, have invented a new, useful, and Improved Horse-Power; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification.

My improvement relates to a class of motors technically known as "horse-powers," and is designed to be especially applicable for driving all kinds of machinery for which a horse-power may be made available, and to occupy the same place in any position whatever where otherwise a steam-engine or water-engine would be necessary. Motion being produced by the agency of animal power, the modes and manner of its application may be as numerous and varied as those engines above mentioned.

With the object of rendering my improvement economical, useful, and efficient to the farmer, planter, or manufacturer who may have occasion for its employment, I have had in view particular adaptations and arrangements of its mechanism, as will be hereinafter more fully explained.

One of the many essential features of my device consists in a peculiar mechanical arrangement of its several parts by which I am enabled to transmit power from several driving-pulleys in several directions horizontally, and from as many points vertically at one and the same time. These results are accomplished with a machine, which for the economy of space which it occupies, the simplicity of its construction, its portability, and its peculiar adaptation to many machines simultaneously is not more expensive than many machines at present employed, from which power can only be taken in one direction and to one machine; but

My improvement will be better understood by reference to the drawing annexed, whereon the similar letters of reference indicate corresponding parts.

On Plate 1 it is represented in part by a side view and partly by a vertical section. On Plate 2 it is represented by a plan or top view.

A is a substantial bed-frame having a cross-timber, *a*, which supports the central vertical main shaft *b*, which rests upon the metal shoulder-step *c*. This step is firmly secured to the under side of the said cross-frame *a*. To the main shaft *b* is rigidly keyed the large friction drum or wheel B, as likewise the metal "shoe" *d*, which supports the draft-shafts *e*. Upon the said shaft *b* is placed loosely the large friction-drum C, upon the outer top side of which the draft animals are required to travel. The said friction drum or wheel C rests upon the friction-rollers *f*, the axles *g* of which are prolonged to and rest upon the journals *h*. The said axles *g* are provided with the cog-wheels *i*, which gear into the pinions *k*, whose axles *l* rest upon the journals *m*. Upon the outer ends of the said axles *l* are the pulleys D, from which, by means of a belt, motion may be imparted to any machine, whether placed on a line horizontally with the said pulley or whether placed above them, as may be desired. E is a frame, upon which may be placed one or more shafts, such as *n*, provided with the pulleys *o*, which may be connected by belts with the aforesaid pulleys D, whereby motion may be imparted to the pulleys *p*, from which likewise, by means of belts, motion may be transmitted to any machine requiring motive power. Upon the outer peripheries of the friction-drums B and C project cogs *r*, which gear into the pinion *s*, the axle of which is also provided with the cog-wheel *t*, which gears into the pinion *u*, and upon the axle of which is the pulley F, from which, by means of a belt, motion may be imparted to a machine, whether placed horizontally with or above said pulley F.

The operation of my improvement is simple. The draft animals travel, as before stated, upon the loose friction-drum C, which, as the said animals proceed forward, will thereby be made to move in an opposite direction upon the said friction-rollers *f*, while

the friction-drum B, being keyed to the shaft *b*, will move with the animals in the same direction, and thus motion will be transmitted to the friction-rollers *f*, and finally, as before stated, to the pulleys D. Upon the upper end of the main shaft *b* may also be placed a pulley or cog-wheel, for the purposes of transmitting motion therefrom, as will be readily understood by an examination of the drawing illustrating my device.

Having described my invention, what I desire to secure by Letters Patent is the following:

Claim.

The improved horse-power herein described, when constructed, arranged, and operated as described, for the purposes specified.

J. MÜLLER.

Witnesses:

L. J. OLMSTEAD,

H. N. JENKINS.