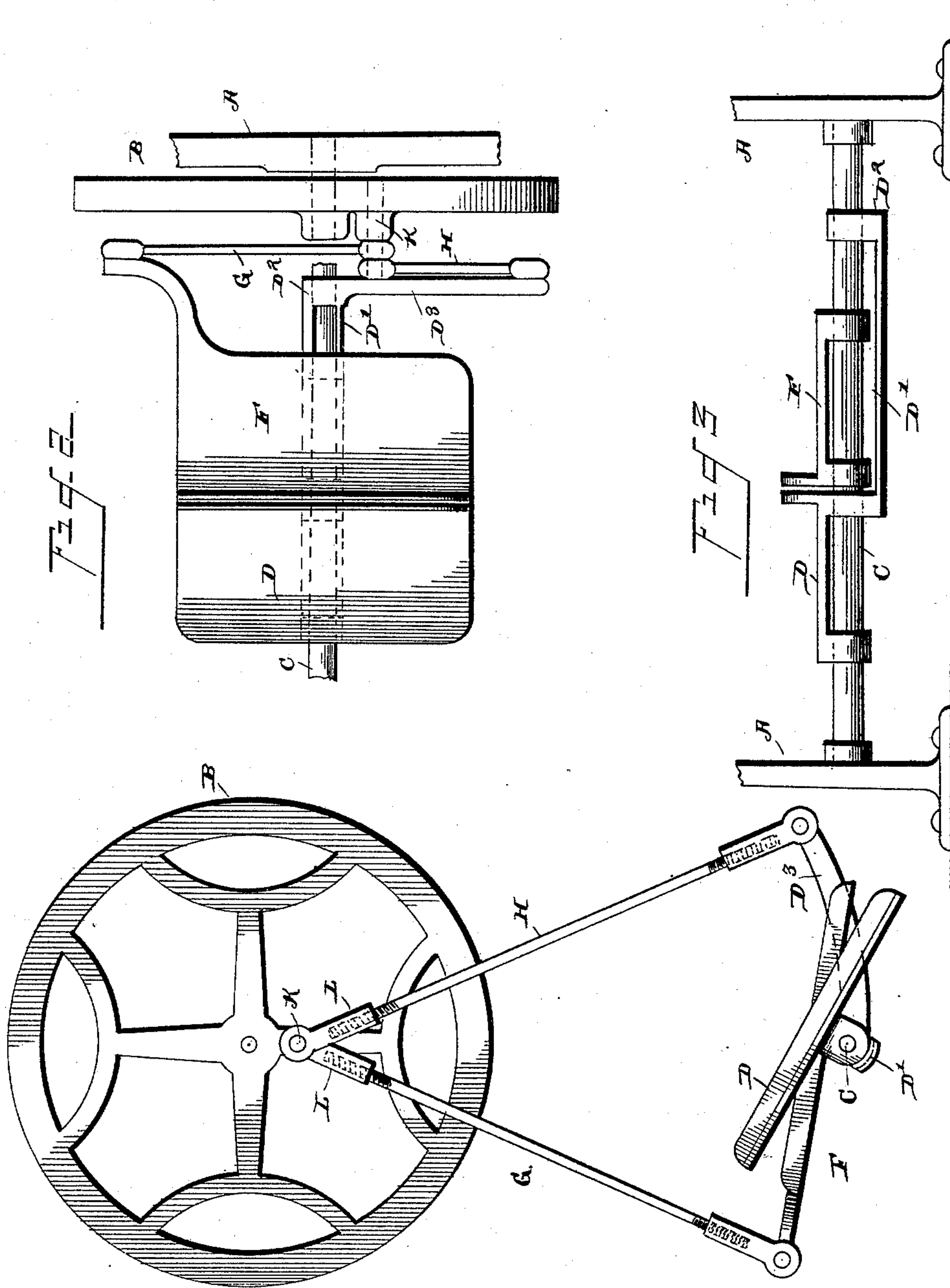


(No Model.)

J. H. FREY.  
MECHANICAL POWER.

No. 441,868.

Patented Dec. 2, 1890.



Witnesses  
*Geo. Frey.*

*N. L. Gollamer.*

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*James H. Frey.*

By *his* Attorneys

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# UNITED STATES PATENT OFFICE.

JAMES H. FREY, OF CINCINNATI, OHIO.

## MECHANICAL POWER.

SPECIFICATION forming part of Letters Patent No. 441,868, dated December 2, 1890.

Application filed April 7, 1890. Serial No. 346,907. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. FREY, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Mechanical Power, of which the following is a specification.

This invention relates to mechanical powers, and is more particularly a treadle adapted to be applied to the tables of sewing-machines, lathes, and similar machines now in use; and the object of the invention is to improve the construction of similar double-acting treadles now upon the market and in use. This object I accomplish by dividing the treadles into two halves, one of which is connected directly with the crank-wrist and the other of which carries an arm passing under the first and having a bearing upon the supporting-shaft at its outer end and a second pitman connected to the outer end of a rod rigidly connected with this arm, and I effect the ready application of this treadle to machines now in use by providing oppositely-threaded sockets at the opposite ends of the two pitmen, all as will be hereinafter more fully described, and as is illustrated in the drawings, in which—

Figure 1 is an end view of this improved treadle. Fig. 2 a plan view thereof, and Fig. 3 an enlarged front elevation of the treadle proper.

Referring to the said drawings, the letter A designates the frame-work of the machine, and B the fly-wheel, having a crank-wrist K.

C is the supporting-shaft between the sides of the frames A at their lower ends, and D F are the half-treadles journaled upon said shaft, as will be understood.

G is a pitman connecting the crank-wrist K with the toe end of the treadle F, and H is another pitman connecting said wrist with the outer end of a rod D<sup>3</sup>, which is connected with the heel end of the other treadle D, all as is now old in the art.

Coming now to the present invention, the letter D' indicates an arm rigidly connected with the treadle D and passing beneath the treadle F, and D<sup>2</sup> is a bearing formed in the outer end of this arm upon the shaft C. The rod D<sup>3</sup> is rigidly connected with the arm D'

at its bearing, and projects therefrom, and to the free end of this rod the pitman H is connected, whereas the left treadle D has heretofore been connected directly with the shaft C, and that in turn with the rod D<sup>3</sup>; hence the said shaft had to be mounted in bearings at its ends. By employing the construction above described I am enabled to apply this treadle to machine-frames now in use without altering their structure, as by providing bearings for the ends of the supporting-shaft.

The letter L designates internally-screw-threaded sockets receiving the oppositely-threaded ends of the pitmen G and H, and these sockets are pivoted at their closed ends to the members K F and D<sup>3</sup>, as shown.

By giving the arm D' an additional bearing D<sup>2</sup> on the shaft C it is greatly strengthened, and the necessity for having the shaft oscillate is avoided, and by using the oppositely-threaded sockets L and pitmen G and H the device can be fitted to machines having the fly-wheel located at different heights above the shaft C, all as will be clearly understood by a person skilled in this art.

I claim as the salient points of this invention—

1. The two treadles D and F, a pitman pivoted to the toe of the latter, an arm rigidly connected to the other treadle D and adapted to pass beneath the treadle F, a bearing at its outer end turning on the fixed supporting-shaft C, a rod D<sup>3</sup> projecting from said bearing, and a pitman pivoted to the free end of said rod, the whole constructed as and for the purpose set forth.

2. The two treadles D and F, an arm rigidly connected to the treadle D and adapted to pass beneath the treadle F, a bearing at its outer end turning on the fixed supporting-shaft C, a rod D<sup>3</sup> projecting from said bearing, internally-threaded sockets L, pivoted to the toe of the treadle F and to the free end of the rod D<sup>3</sup>, pitmen G H, having oppositely-threaded ends, the lower ones of which are seated in said sockets, and other internally-threaded sockets screwed onto the upper ends of said pitmen and adapted to be pivoted on the wrist-pin K, the whole constructed as and for the purpose set forth.

3. The two treadles D F, a pitman G, piv-  
oted to the treadle F, and an arm D, rigidly  
connected to the treadle D and passing be-  
neath the treadle F, a rod D<sup>s</sup>, attached to said  
5 arm D', and the pitman H, connected to said  
rod, as set forth.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in  
presence of two witnesses.

JAS. H. FREY.

Witnesses:

FRANK A. FREY,

W. B. DAVIS.