H. SHEAR.

Combined Crank and Treadle Power for Driving Saws and other light Machinery.

No. 195,541. **Patented Sept. 25, 1877.**

Fig. 1.

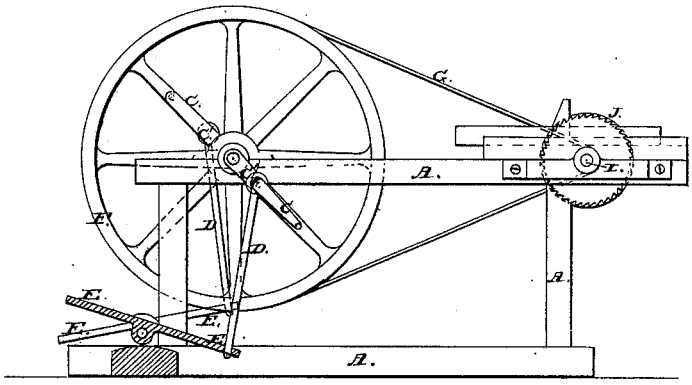
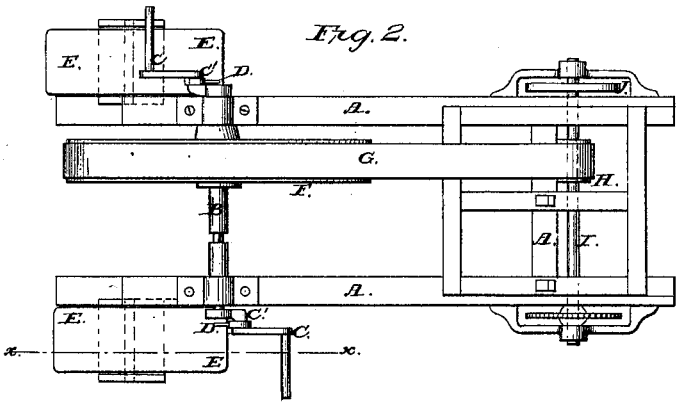


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY SHEAR, OF ARCOLA, ILLINOIS, ASSIGNOR TO HIMSELF AND EDWARD CORNTHWAIT, OF SAME PLACE.

IMPROVEMENT IN COMBINED CRANK AND TREADLE POWERS FOR DRIVING SAWS AND OTHER LIGHT MACHINERY.

Specification forming part of Letters Patent No. **195,541**, dated September 25, 1877; application filed August 11, 1877.

To all whom it may concern:

Be it known that I, HENRY SHEAR, of Arcola, in the county of Douglas and State of Illinois, have invented a new and useful Improvement in Combined Crank and Treadle Power, of which the following is a specification:

Figure 1 is a side view of my improved power, partly in section, through the line *x x*, Fig. 2, to show the construction. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved power for driving saws and other light machinery, and which shall be simple in construction, easily moved from place to place, inexpensive in manufacture, and effective in use.

The invention consists in the combination of the shaft, the double cranks, the connecting-rods, the treadles, the pulley, and the band with each other, the frame, and the working-shaft of the machinery to be driven, as hereinafter fully described.

A represents the frame-work of the machine, which may be of any desired or convenient size and form.

B is a shaft, which revolves in bearings attached to the upper rear part of the frame A. The ends of the shaft B project at the sides of the frame A, and to them are attached the cranks C, which are made with an offset, *c'*, forming a second crank, and thus making them double cranks.

To the inner and shorter cranks *c'* are pivoted the ends of the connecting-rods D, the lower ends of which are pivoted to the ends of the treadles E. The treadles E are pivoted at their centers to pins attached to the lower part of the frame A.

To the driving-shaft B is attached a pulley, F, which is made large and heavy to adapt it to serve also as a fly-wheel, and around which is passed a band, G. The band G also passes around a pulley, H, attached to the shaft I, which revolves in bearings attached to the upper part of the frame A, and which may be a saw-mandrel, or the working-shaft of any other machinery.

To the shaft I is also attached a fly-wheel, J, to give it steadiness of motion.

In using the machine a man stands upon each treadle E, with a foot near each end, and grasps the crank C with his hands. Then, by the natural motion of turning the crank C, his weight will be thrown alternately upon the opposite ends of the treadle E.

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

The combination of the shaft B, the double cranks C *c'*, the connecting-rods D, the treadles E, the pulley F, and the band G with each other, the frame A, and the working-shaft I of the machinery to be driven, substantially as herein shown and described.

HENRY SHEAR.

Witnesses:
GEO. L. WICKS,
CHAS. N. DOLSON.