

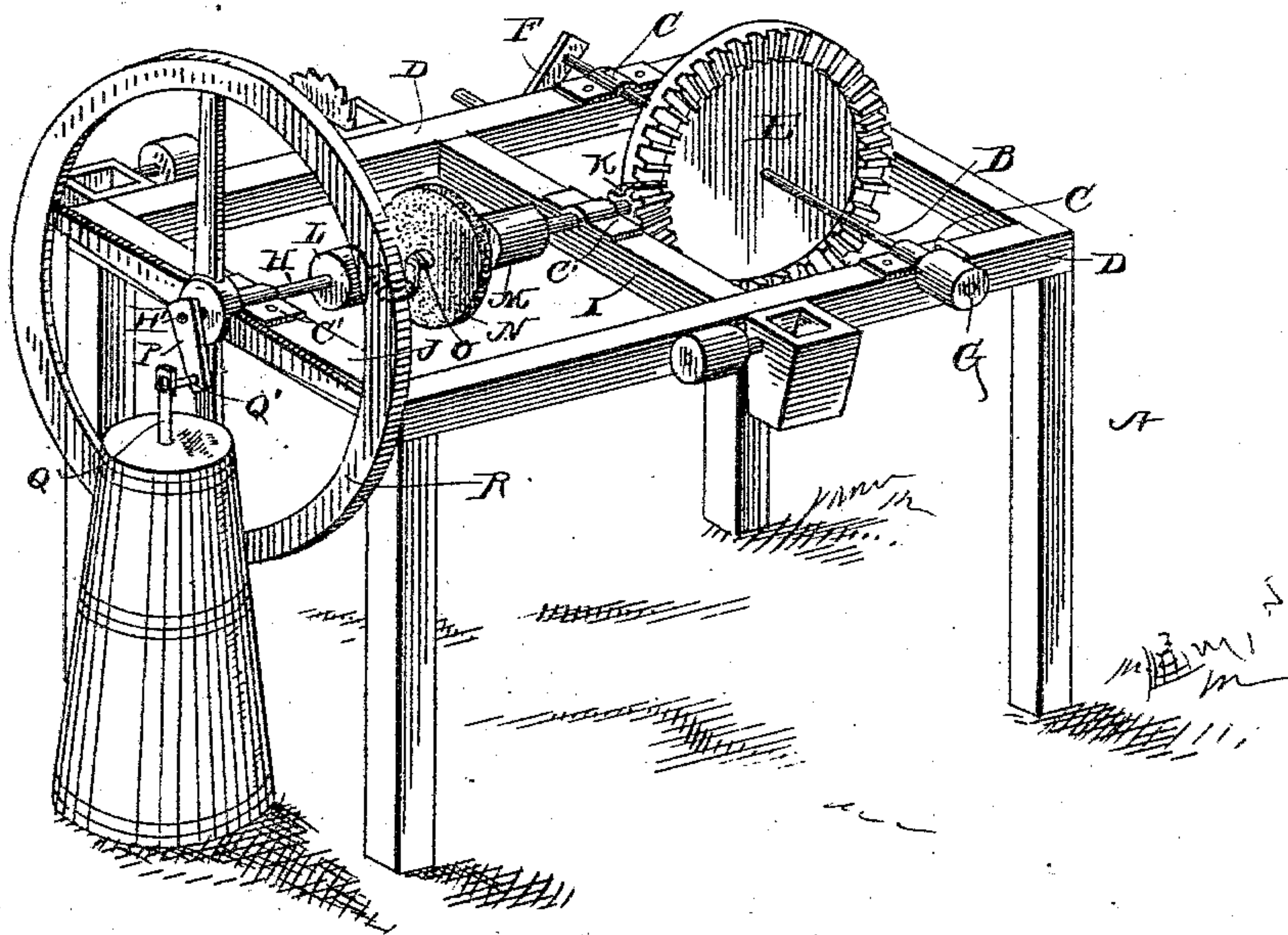
(No Model.)

W. CHILTON.  
MOTOR.

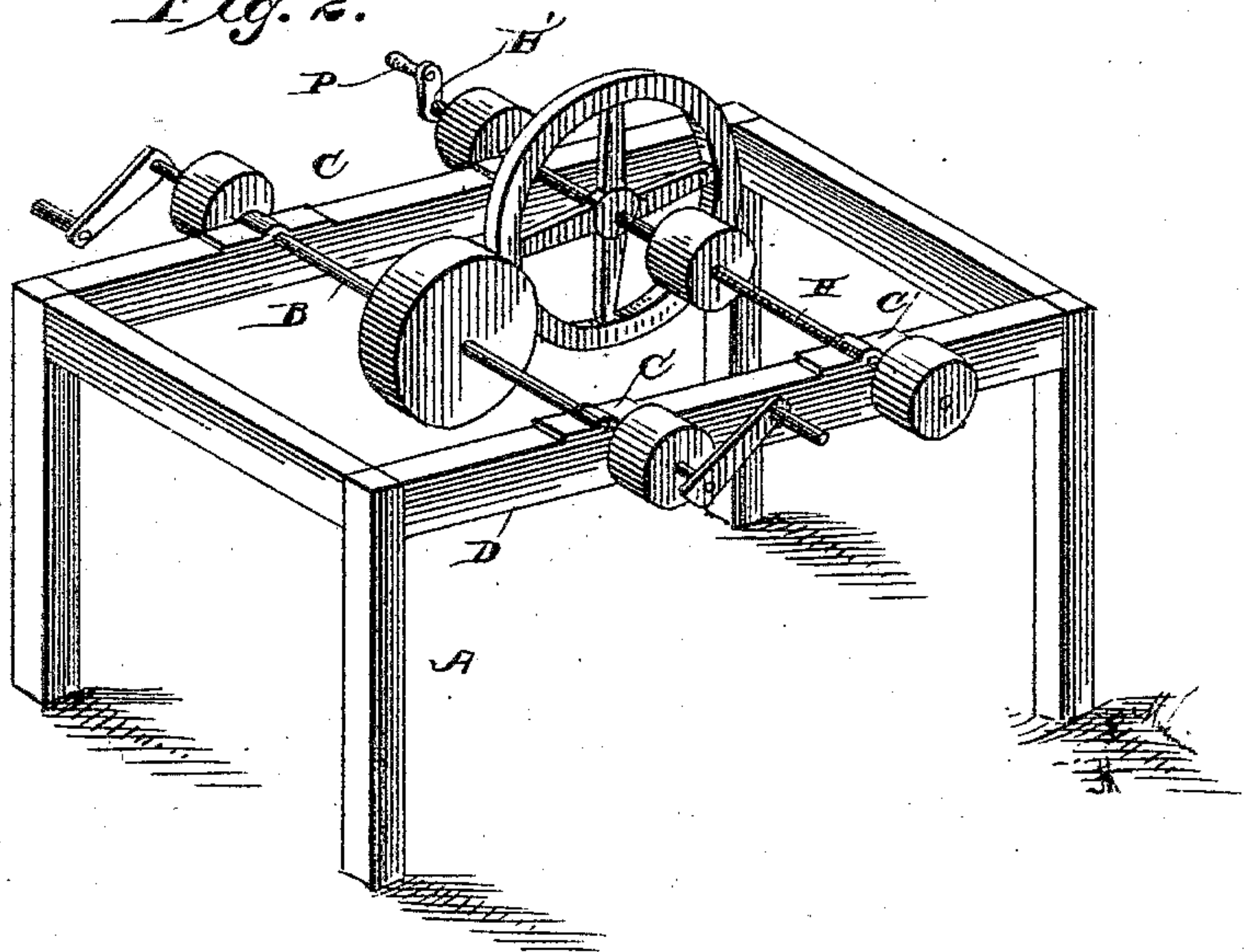
No. 305,792.

Patented Sept. 30, 1884.

*Fig. 1.*



*Fig. 2.*



WITNESSES  
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# UNITED STATES PATENT OFFICE.

WILLIAM CHILTON, OF HEMPSTEAD, TEXAS.

## MOTOR.

SPECIFICATION forming part of Letters Patent No. 305,792, dated September 30, 1884.

Application filed July 23, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WM. CHILTON, a citizen of the United States, residing at Hempstead, in the county of Waller and State of Texas, have invented a new and useful Improvement in Motors, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to motors designed to be driven by hand-power, horse-power, steam or other power, for use in the kitchen, dairy, farm-workshop, or other place, to operate churns, washing-machines, sewing-machines, circular and scroll saws, corn-shellers and mills, grindstones and emery-wheels, coffee and spice mills—in fact, any and all machines where light power is required; and it has for its object to provide a motor of the class referred to that shall possess superior advantages in point of simplicity, cheapness, durability, and general efficiency; and to these ends my invention consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a view in perspective of my improved motor applied to a churn, a circular saw, and a coffee-mill; and Fig. 2 is a view in perspective of a modification of the motor, wherein band-wheels are used in lieu of cog-gears shown in Fig. 1.

Referring by letter to the accompanying drawings, A designates the frame of the machine, which may be made of either wood or iron. This frame A is rectangular in form, and is suitably braced to give it the necessary strength, and it may be of any desired dimensions, said dimensions being regulated by the uses to which the motor is to be put, and in accordance with the power required. The driving-shaft B is journaled in boxes C C on the side rails, D D, of the frame A. The driving-wheel E is secured to the middle of the driving-shaft B, and a crank, F, is provided at one end of said shaft B, and a band-wheel, G, at the other end thereof, its ends projecting through the boxes C C and beyond the side rails, D D, of the frame. A crank-shaft, H, is journaled in boxes C' C' on a cross-rail, I, and one of the end rails, J, of the frame at right angles to the driving-shaft B, and this crank-shaft H is pro-

vided at its inner end with a miter-pinion, K, the teeth of which mesh with the miter-teeth on the driving-wheel E.

In Fig. 1 I have shown the crank-shaft H provided with two band-wheels, L and M, an emery-wheel, N, a double crank, O, between the emery-wheel and band-wheel L, and a crank-arm, P, at its outer end. The crank-arm P is connected to a pitman-rod, Q, by a wrist-pin, Q', and the pitman-rod is connected to the dasher-rod of a churn. It is evident that the pitman-rod may be connected to a scroll-saw or other device requiring a reciprocating motion to operate it. I have shown also in said Fig. 1 a circular saw secured in a frame attached to one of the side rails D, and operated by a band from the pulley M. A band also runs from the pulley L to a pulley on the shaft of a coffee-mill on the opposite side rail D. The double crank may be connected by a pitman-rod to any machine requiring a reciprocating motion to operate it. The crank-shaft H is provided with a fly-wheel, R, which is secured thereto outside of the frame A, in order to enable me to make the frame small and the fly-wheel sufficiently large to cause the mechanism to run evenly and with uniformity.

In the modification shown in Fig. 2 the driving-shaft and crank-shaft are journaled parallel to each other, and instead of cog-gearing, as in Fig. 1, band-wheels and belting are used. The uses to which this motor may be put are practically illimitable in a figurative sense, and only a few of them have been enumerated above.

For light work and short operations the crank on the driving-shaft may be used, and the motor be driven by hand-power. In heavier work and longer operations the band-wheel on said driving-shaft may be and is employed and is driven by horse-power, dog-power, or steam or water power, as may be most convenient.

The corn-sheller, &c., are separate from the motor; but those I have shown connected to the frame may be conveniently used in such connection, and in some instances two or more of them may be operated at the same time, if desirable.

The crank-shaft H has a bit-socket, H', in



the end, to which the crank-arm P is detachably connected, and the crank-arm may be removed and a bit placed in said socket H', so that boring and drilling may be performed by the machine.

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

1. The combination, with the frame of the motor, of the crank-shaft provided with the double crank, bands L and M, fly-wheel, crank-arm, and pitman-rod, and the driving-shaft and mechanism, substantially as described, for driving said crank-shaft, as set forth.

2. The combination, with the frame of the motor, of the driving-shaft provided with the crank at one end and band-wheel at the other end, and the toothed driving-wheel at its middle, and the crank-shaft journaled in the frame at right angles to the driving-shaft, and pro-

vided with the pinion on its inner end, engaging the toothed driving-wheel, the band-wheels L and M, the double crank, the fly-wheel, the crank-arm, and the pitman-rod, substantially as specified.

3. The combination, with the frame of the motor, of the crank-shaft provided with a band-wheel and a crank at each end, a band-wheel at its middle, a shaft provided with a band wheel or pulley at each end and arranged parallel with the driving or crank shaft, a driving-wheel at the center, and a band-wheel on one side of the driving-wheel, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM CHILTON.

Witnesses:

JAMES ARMSTRONG,  
J. R. S. DAVIS.