

(No Model.)

T. M. FORD.  
MECHANICAL MOVEMENT.

No. 310,040.

Patented Dec. 30, 1884.

Fig. 1.

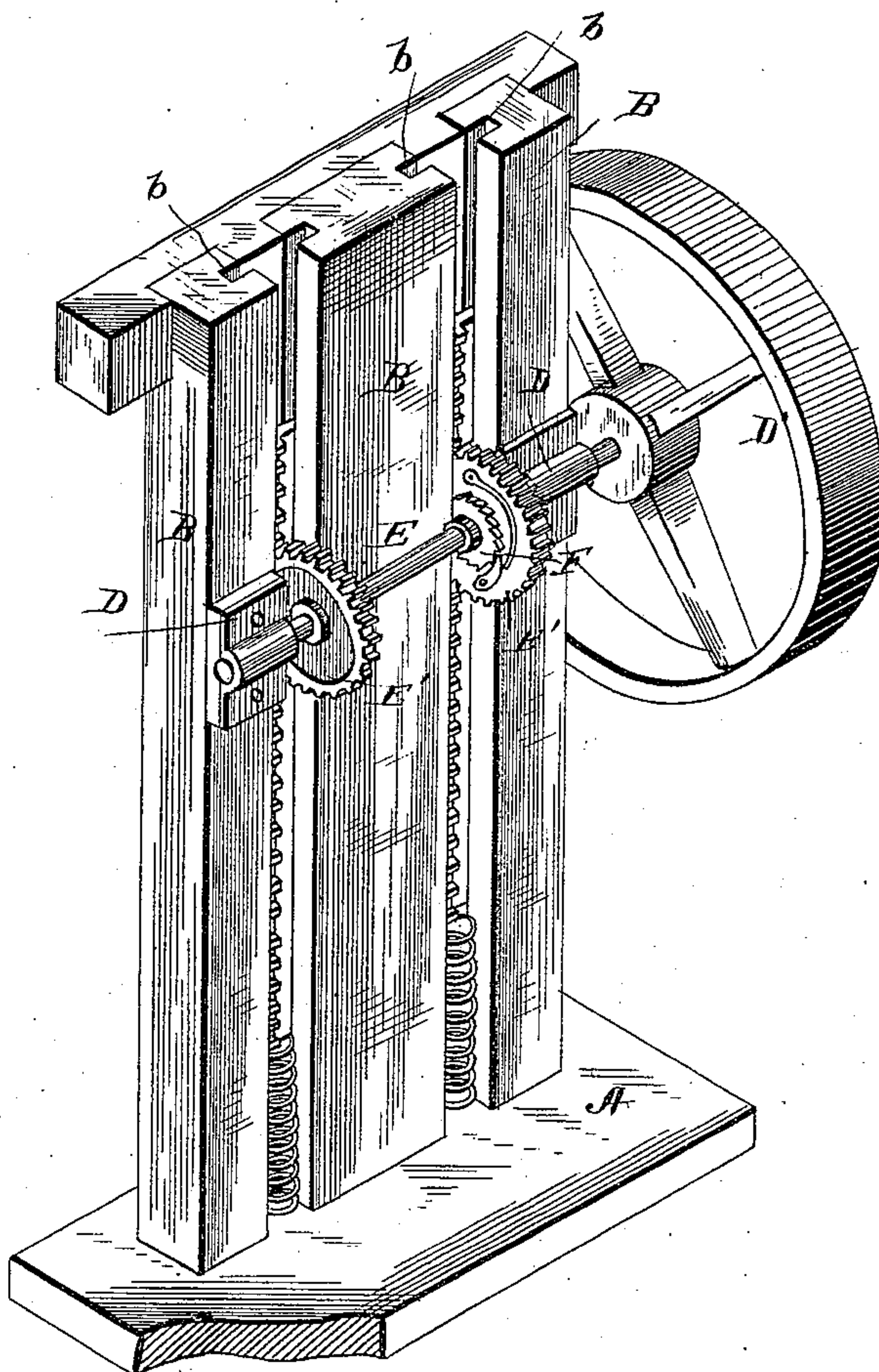
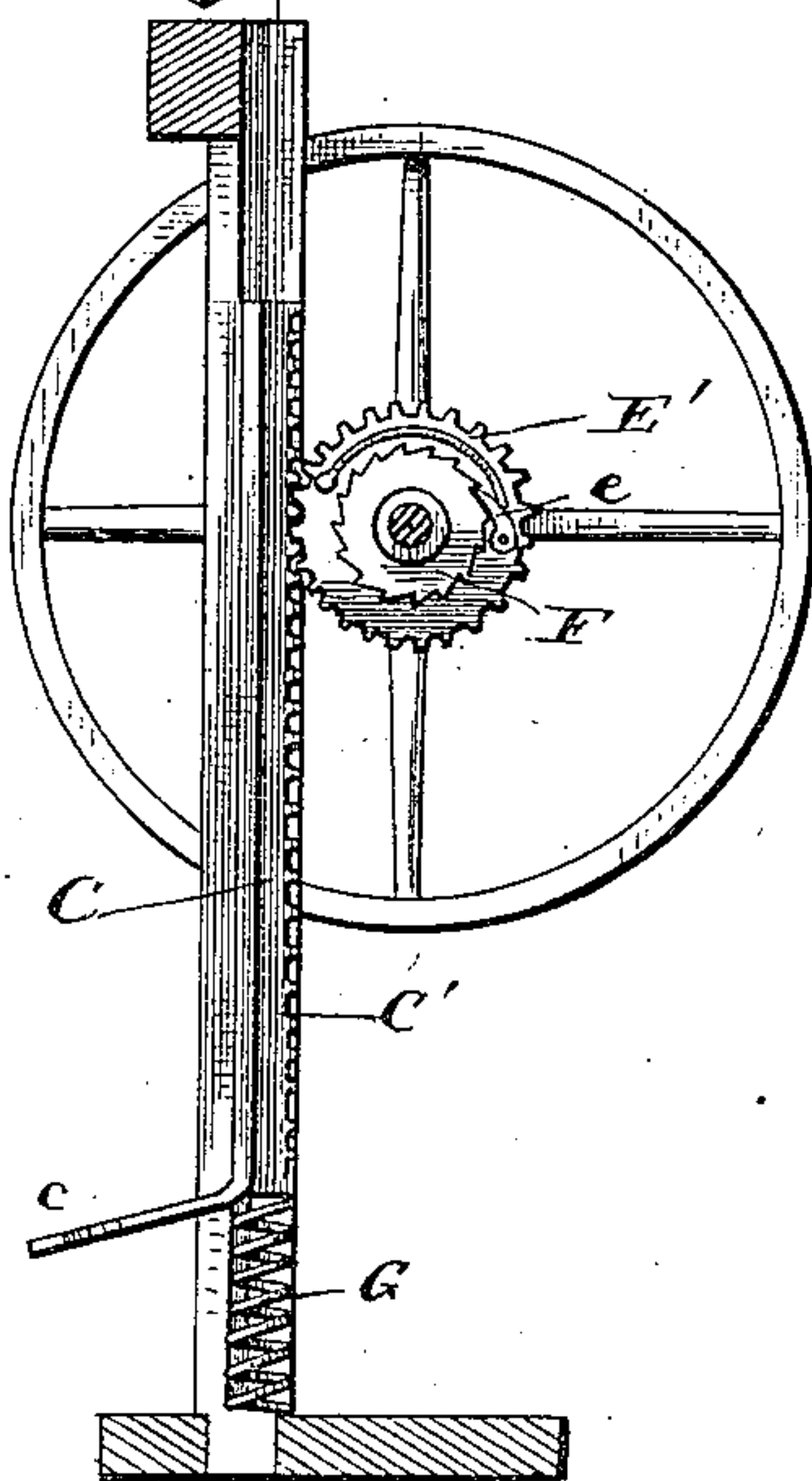


Fig. 2.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 310,040, dated December 30, 1884.

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

*To all whom it may concern:*

Be it known that I, THEODORE M. FORD, a citizen of the United States, residing at Sharpsville, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Mechanical Motions; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains, to make and use the same.

My invention relates to certain new and useful improvements in machines for converting motion; and it consists in the construction and combination of the parts whereby a vertical intermitting reciprocating motion is converted into a continuous rotary movement, as will be hereinafter more fully set forth and pointed out in the claim, my invention being designed primarily to be operated by foot-power.

In the accompanying drawings, Figure 1 is a perspective view. Fig. 2 is a sectional view.

A represents the base, which is provided with vertical standards B B, which have their edges provided with grooves *b b*, for the reception of sliding plates C, which play vertically within said groove, the lower portion of these plates being bent at right angles, as shown at *c*, so as to form a foot-rest.

To the front edge of the sliding plate C is rigidly attached a rack-bar, C', which projects therefrom, as shown.

To the front portion of the uprights B are secured bearing-blocks D, which support a horizontal shaft, E, which carries at its outer end a driving-wheel, D'. This shaft has mounted thereon loosely, immediately in front of the rack-bars so as to engage therewith, gear-wheels E', which are free to rotate upon the shaft, and adjacent to these gear-wheels ratchet-wheels F are rigidly attached to the

shaft E. The gear-wheels E' are each provided with spring-pawls *e*.

The lower portion of the standards immediately under the rack-bar C' is recessed or grooved for the reception of spiral springs G, which have a tendency to raise said rack-bar, so that it will be normally above the gear-wheel.

The operation of my invention is as follows: The operator places his feet upon the foot-rests *c* and alternately depresses the same, which action causes the rack-bar to engage with the gear-wheels, the downward movement of said rack-bar causing the rotation of said shaft. The rack-bars are raised after each depression by the spiral springs G.

It will be seen that by alternately depressing the rack-bars, the driving-wheel D' is caused to rotate continuously.

Having thus described my invention, I do not wish to limit myself to the exact construction herein shown and described, as the same may be varied without departing from the spirit thereof.

I claim—

In a device for converting motion, substantially as described, the grooved uprights B, reciprocating slides C, having foot-rests *c* and rack-bars C', shaft E, supported in journals attached to the uprights, said shaft having mounted loosely thereon, opposite the rack-bars, gear-wheels provided with spring-pawls, and adjacent to said gear-wheels rigidly attached ratchet-wheels, and springs G, secured under the rack-bars, the parts being combined and organized substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

THEODORE M. FORD.

Witnesses:

W. W. KITCH,  
W. D. HOFIUS.