

J. TASCHER.

DEVICE FOR CONVERTING MOTION.

No. 193,197.

Patented July 17, 1877.

Fig. I.

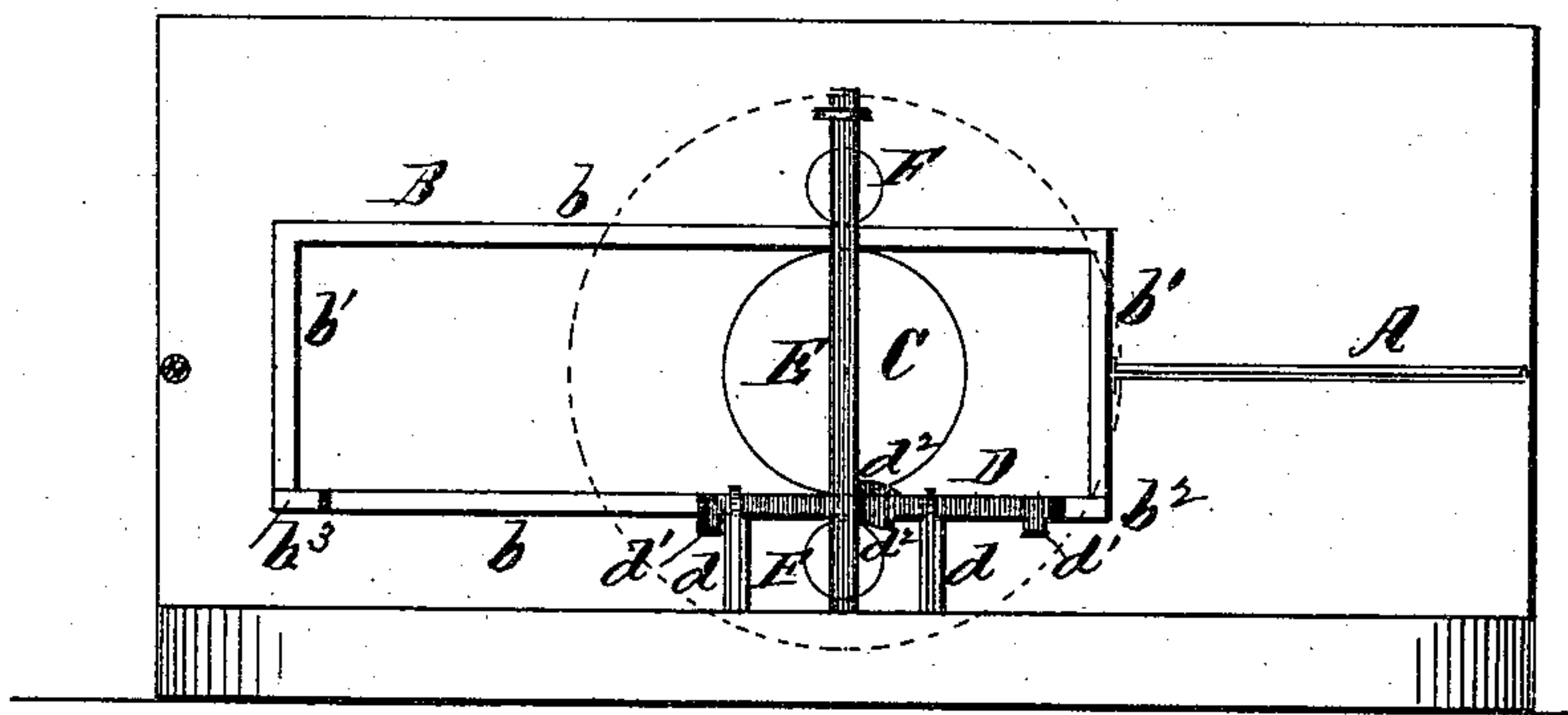


Fig. III.

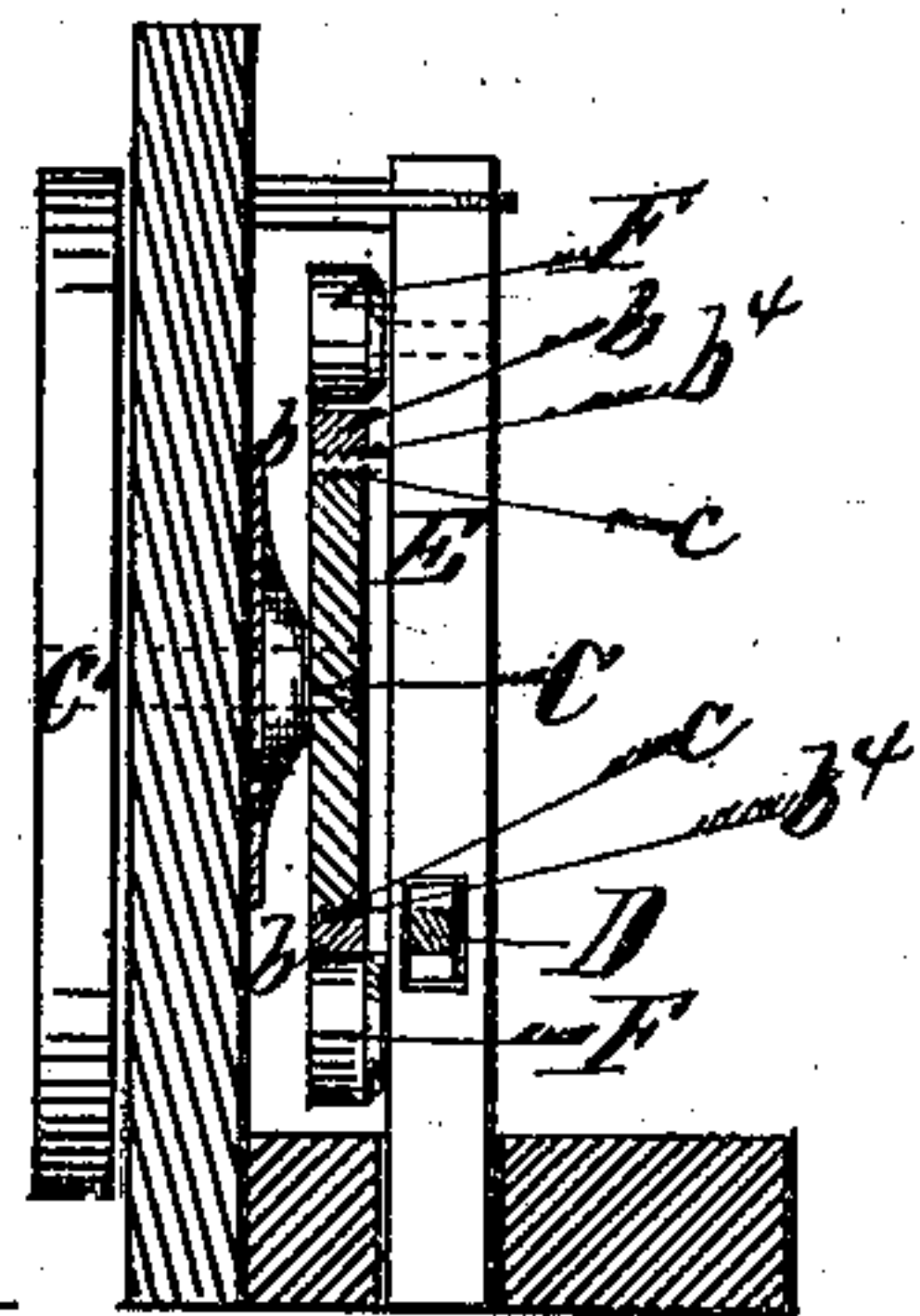
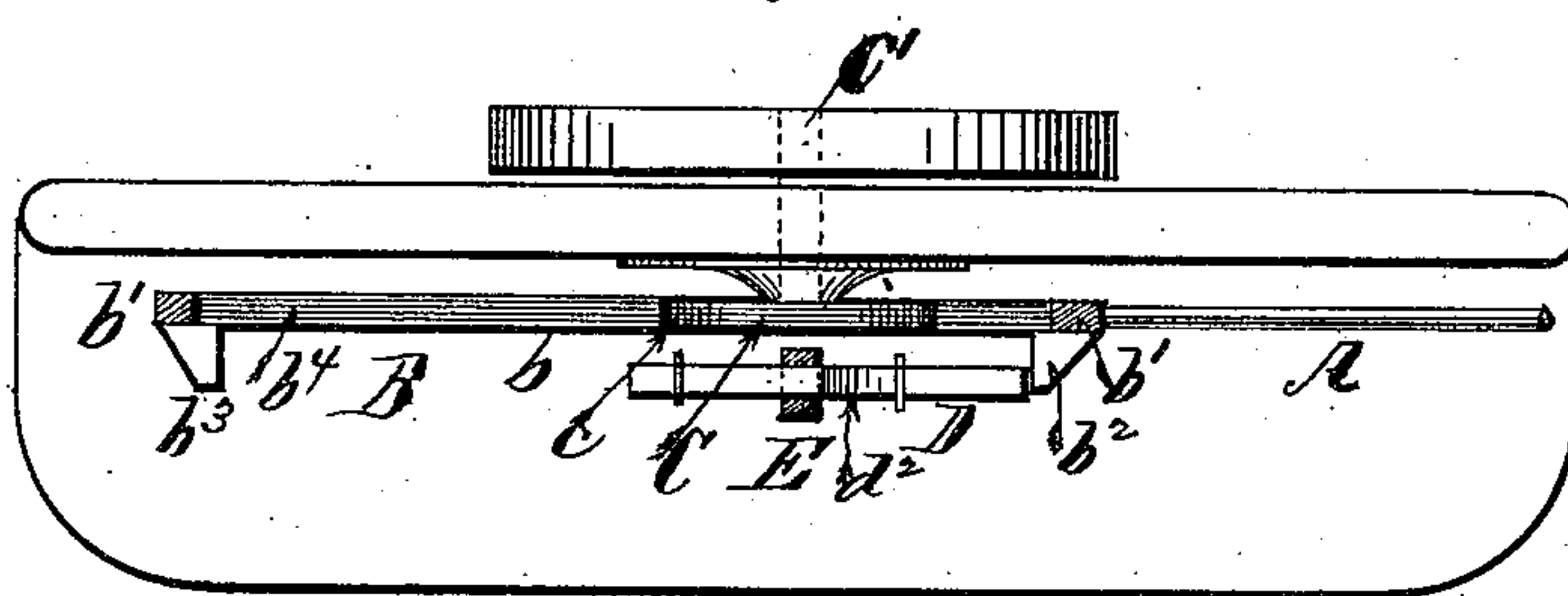


Fig. II.



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UNITED STATES PATENT OFFICE.

JACOB TASCHER, OF CENTRAL CITY, COLORADO.

IMPROVEMENT IN DEVICES FOR CONVERTING MOTION.

Specification forming part of Letters Patent No. **193,197**, dated July 17, 1877; application filed May 16, 1877.

To all whom it may concern:

Be it known that I, JACOB TASCHER, of Central City, Gilpin county, and State of Colorado, have invented a new and useful Improvement in Devices for Converting Reciprocating into Rotary Motion; and I hereby declare the following to be a full and clear description of the same.

The invention consists of a sliding frame, which is pressed alternately against the opposite sides of a friction-wheel by suitable automatic mechanism, the friction of the said frame against the wheel causing it to rotate in a continuous direction.

The friction between the sliding frame and the wheel is augmented by a series of V-shaped grooves, which fit into each other, as will be presently more fully explained.

The invention will be readily understood by reference to the accompanying drawings, of which—

Figure 1 is a side elevation of the improved device. Fig. 2 is a central sectional plan of the same, and Fig. 3 is a central sectional elevation of it.

To the outer end of the piston or other rod A is attached a sliding frame, B. This frame consists of two side rails, *b*, and two cross-bars, *b*¹, which connect the two side rails together at their ends, as shown in Fig. 1.

Between the two side rails is placed a friction-wheel, C, the diameter of which is just a trifle less than the distance between the said rails *b*. The wheel C is mounted on, and imparts motion to, the driving-shaft C'. A sliding bar, D, of about one-third of the length of the rails *b*, (more or less,) is placed by the side of the lower one of the said rails *b*, and is supported in the bearings *d*, so as to be capable of receiving a slight reciprocating motion, which is limited by the lugs *d*¹, so arranged as to strike against the bearings *d* at the proper moment to terminate the movement of the said bar D. Lugs *b*² *b*³, fixed upon the side of the rail *b*, strike the opposite ends of the bar D alternately, and move it just a short distance immediately pre-

ceding the finish of the stroke of the frame B. In the central part of the bar D, and on the top and bottom edges of it, are fixed sloping seats *d*², which move the vertically-sliding bar E up or down at each stroke of the machine.

The bar D may pass through a mortise in the vertical bar E, or lugs on the side of the bar E may furnish the proper bearings for the seats *d*².

The bar E carries two friction-rollers, F, which are placed just sufficiently far apart to allow the frame B to pass between them without touching.

The periphery of the wheel C is serrated with a series of V-shaped grooves, *c*, which fit into corresponding grooves *b*⁴ in the contiguous faces of the rails *b*. As the frame B is moved forward and backward just at the finish of the stroke, the bar D is moved, as has been described, and the bar E is thereby moved up or down, so as to bring one or the other of the wheels F in contact with the side of the frame B, which is thereby pressed against the periphery of the wheel C, so as to move it by friction on the return stroke of the frame B, the grooves *c* and *b*⁴ assisting to increase the friction, so as to insure the rotation of the wheel C. Then, at the other end of the stroke, the bars D and E are moved in the opposite direction, and the other one of the wheels F presses the frame B against the opposite side of the wheel C, with the same result as before, and so a continuous rotation of the wheel is produced by the reciprocating motion of the frame B.

Having described my invention, I claim—

The reciprocating frame B and the wheel C, having V-shaped grooves *b*⁴ and *c*, respectively, formed in their contiguous faces, the sliding bars D and E, the wheels F, and the lugs *b*² and *b*³, constructed and arranged as and for the purpose set forth.

JACOB TASCHER.

Witnesses:

JAMES COLLINS,
JAMES NICHOLSON.