(No Model.)

B. J. ROSS.

POWER CONVERTING MECHANISM.

No. 588,481. Patented Aug. 17, 1897.

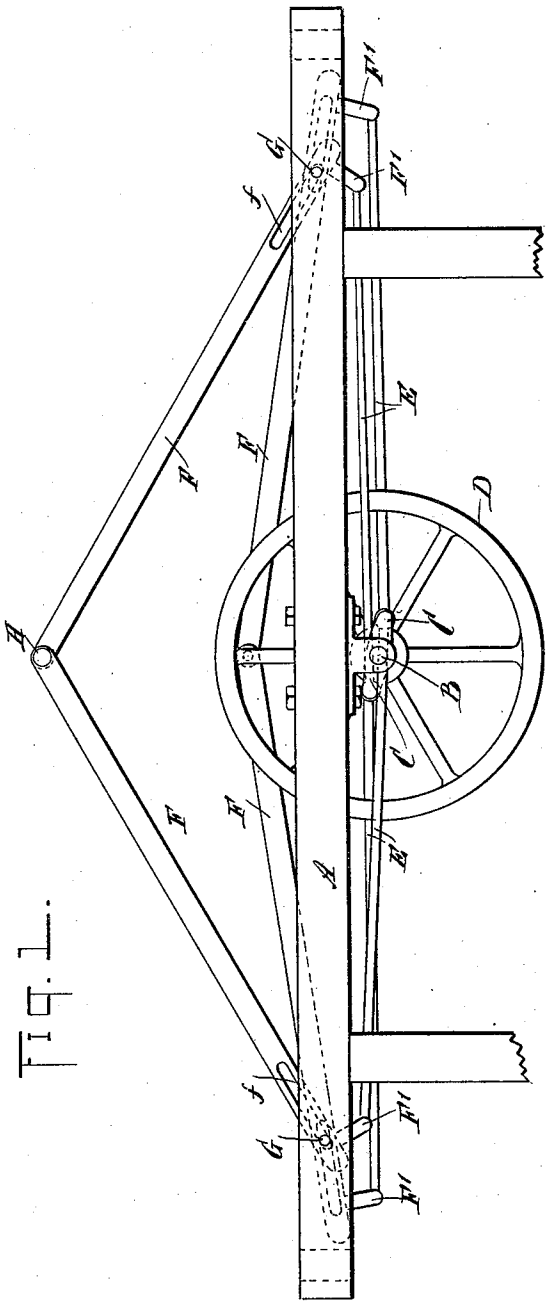


Fig. 1.

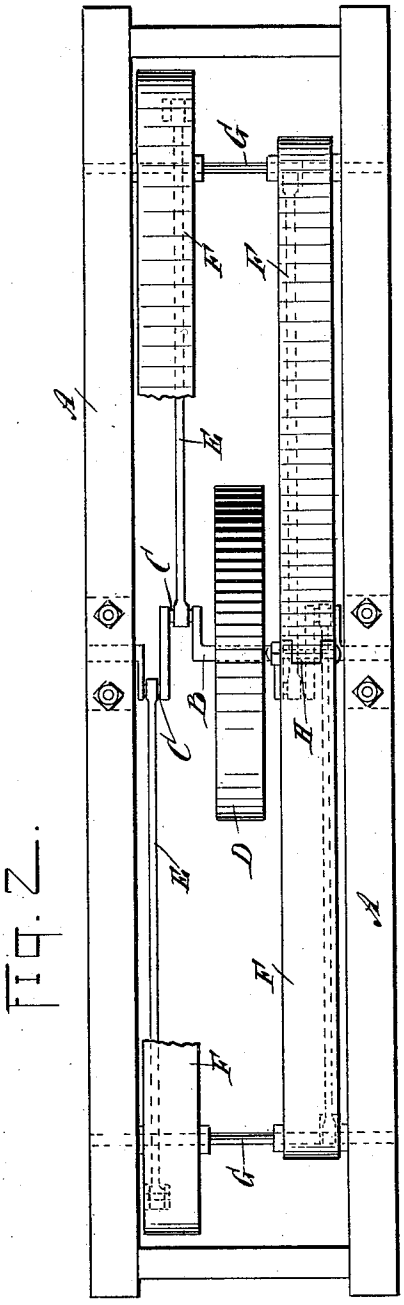


Fig. 2.

WITNESSES:

H. Kellyer.

Henry L. Reynolds.

INVENTOR

B. J. Ross.

BY Munn & Co

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BENEDICT J. ROSS, OF LOUISVILLE, KENTUCKY.

POWER-CONVERTING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 588,481, dated August 17, 1897.

Application filed May 7, 1897. Serial No. 635,465. (No model.)

To all whom it may concern:

Be it known that I, BENEDICT J. ROSS, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and Improved Power-Converting Mechanism, of which the following is a full, clear, and exact description.

My invention relates to an improved mechanism for use in converting reciprocating into rotary motion.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the views.

Figure 1 is a side elevation of my device; and Fig. 2 is a plan view, certain portions being broken away to show other parts.

My device consists, essentially, of bars pivoted together in one or more pairs, similarly to the two bars of a toggle-joint. The outer ends of these bars are restrained within guides, so that they have a reciprocating movement therethrough, and may be also provided with short arms, extending at right angles thereto, at their outer ends. These arms are connected by rods with double cranks placed upon a shaft. The movement of the center pivot of the bars forming the toggle-joint causes a reciprocating movement of the connecting-rod and therefore a rotary movement of the shaft.

In the drawings the frame supporting my device is represented by A. This frame carries a shaft B, mounted thereon and provided, as shown in the drawings, with two sets of double-crank arms C C. It is also provided with a fly-wheel D, which contributes to steadiness of rotation.

At each end of the frame A are bars G, extending across the same and forming guide-pins for the bars F. These bars F are pivoted to each other at their inner ends, as shown at H. Their outer ends are provided with slots *f*, through which the guide pins or bars G pass. From the outer ends of the bars F project arms F′ substantially at right angles thereto, and to the ends of these arms are connected the rods E, which at their other ends are connected to the pins of the cranks C. One set of bars F will be elevated while the other is depressed, the connection of each set being made opposite to that of the other set.

By means of this device a small power applied at H will exert a great rotating effect at the shaft B.

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

1. A power-converting mechanism, comprising two levers pivoted to each other at one end, forming toggle-levers, a frame having guides for the outer ends of said levers, side extending arms attached to said outer ends, a shaft mounted in said frame and having double and opposite cranks, and links or connecting-rods connecting said cranks with the outer ends of the side extending arms, substantially as described.

2. A power mechanism, comprising a shaft having two pairs of double cranks all arranged in the same plane, two sets of bars pivoted to each other to form toggle-levers, guides for the outer ends of the said bars, arms extending at right angles to said bars at their outer ends, and away from the apex formed by said bars, and connecting-rods connecting the outer ends of the said arms with the cranks, substantially as described.

BENEDICT J. ROSS.

Witnesses:
A. M. SHAW,
R. E. FLEMING.