

(No Model.)

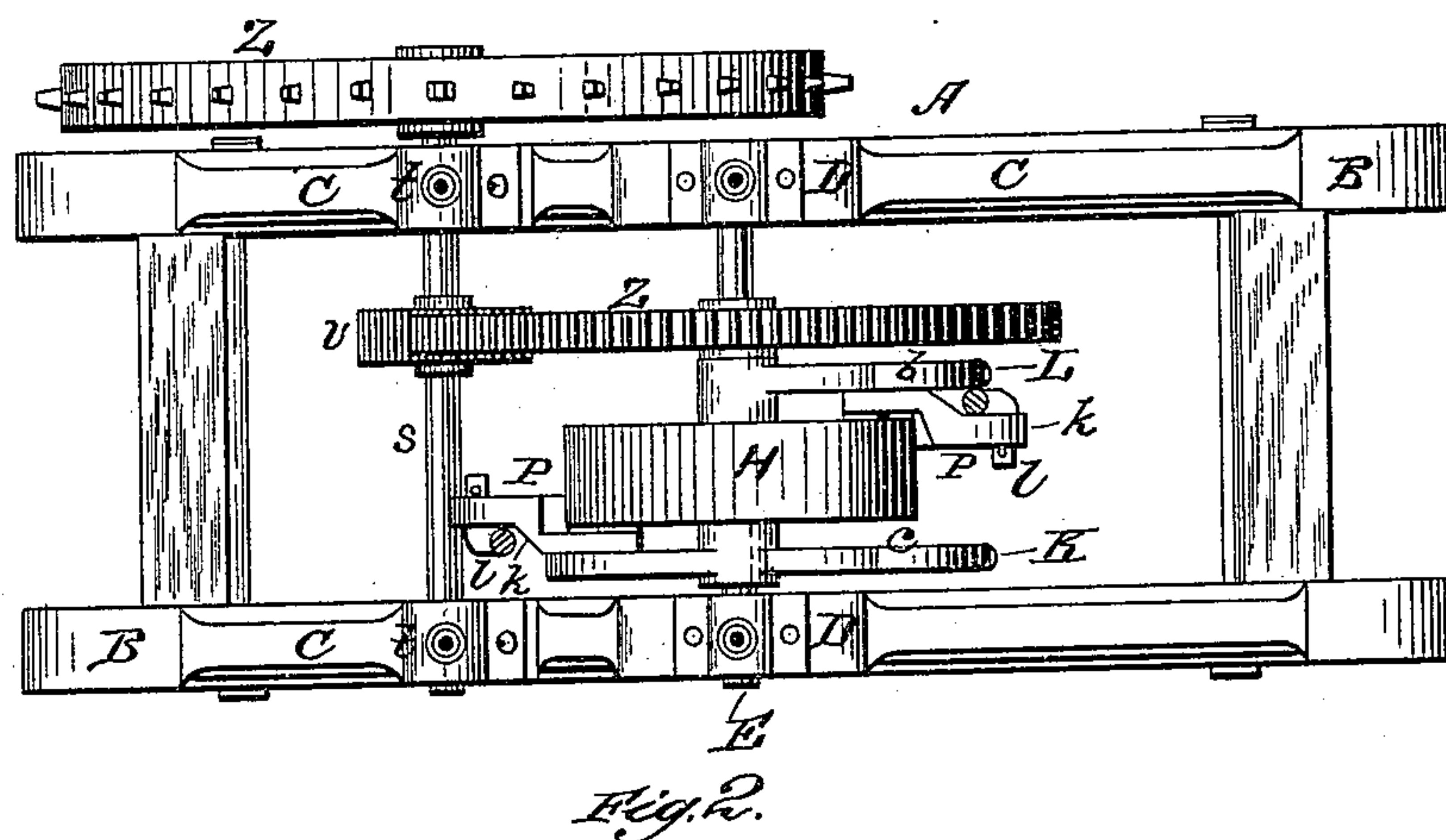
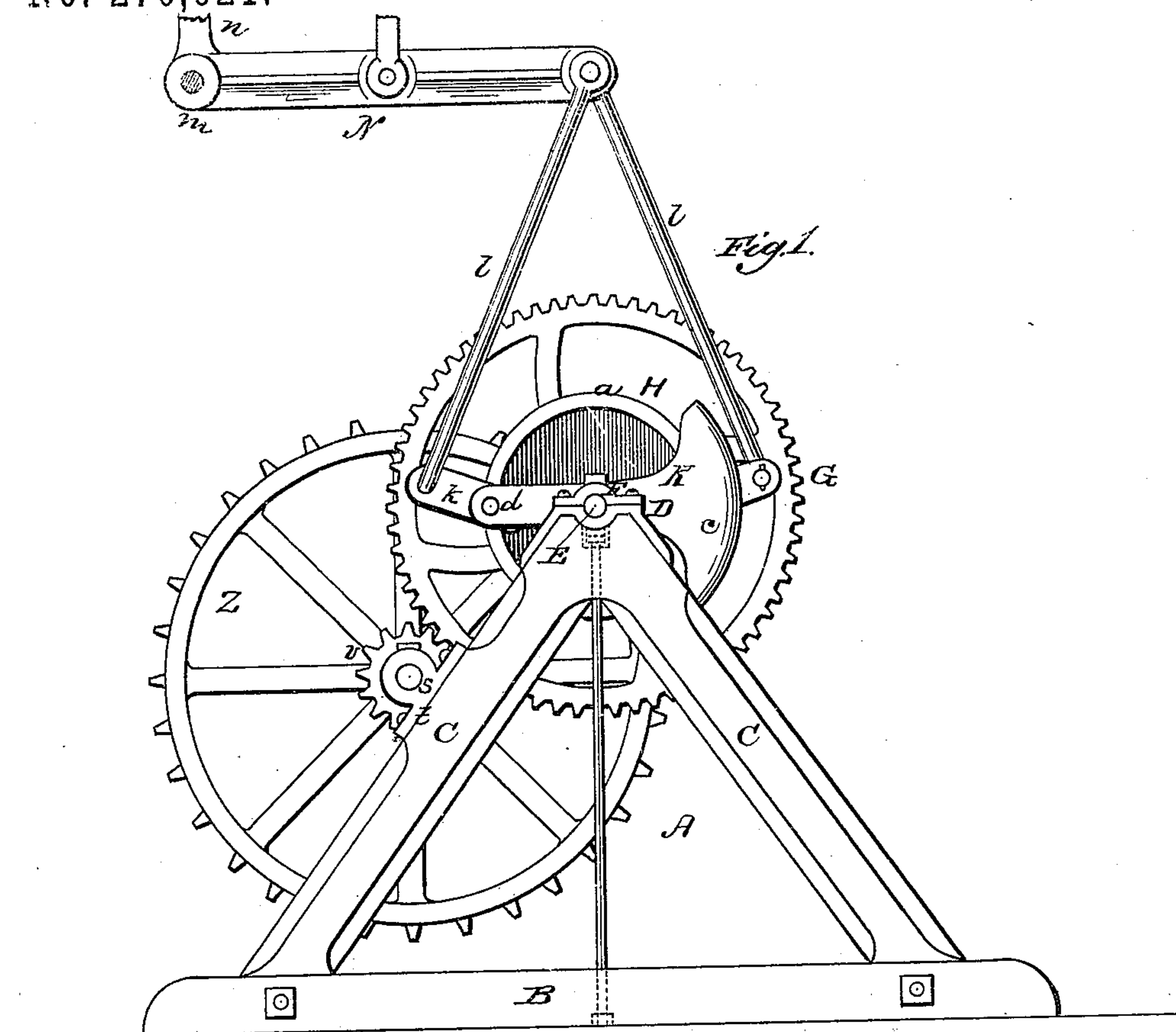
2 Sheets—Sheet 1.

J. F. WINCHELL.

POWER CONVERTER.

No. 270,621.

Patented Jan. 16, 1883.



WITNESSES

Emory F. Bates.  
Philip A. Mason.

INVENTOR  
James F. Winchell,  
by Auden & Smith  
his ATTORNEYS

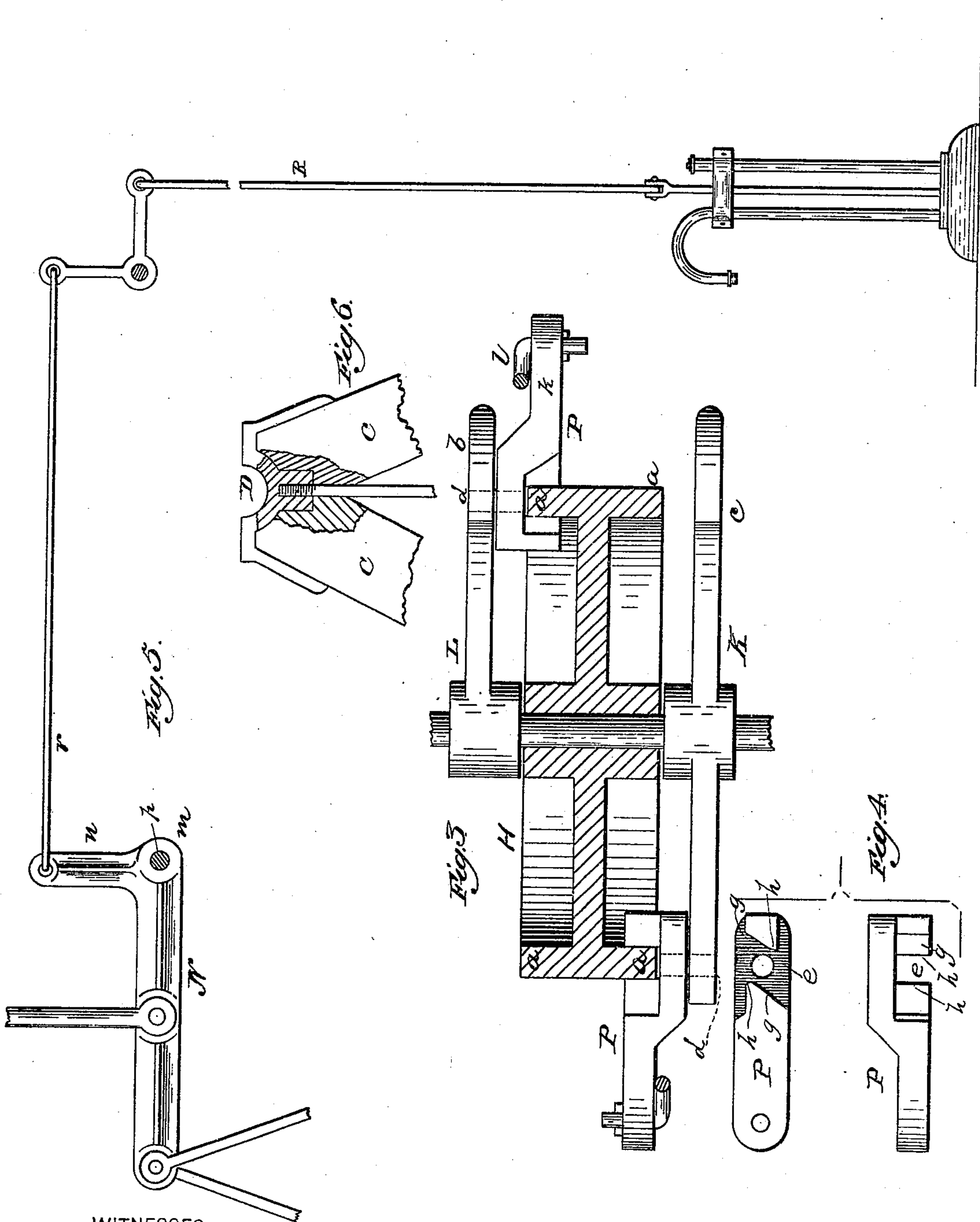
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# UNITED STATES PATENT OFFICE.

JAMES F. WINCHELL, OF SPRINGFIELD, OHIO.

## POWER-CONVERTER.

SPECIFICATION forming part of Letters Patent No. 270,621, dated January 16, 1883.

Application filed June 12, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES F. WINCHELL, a citizen of the United States, and a resident of Springfield, in the county of Clarke and State of Ohio, have invented a new and valuable Improvement in Power-Converters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side elevation, and Fig. 2 is a plan view. Figs. 3, 4, 5, and 6 are detail views.

This invention has relation to devices for converting reciprocating into rotary motion, and especially to converting-motors designed to be employed in connection with windmills.

The invention consists in the construction and novel arrangement, in connection with the laterally-flanged clutch-wheel, of the clutch-pawls pivoted to gravitating arms and provided with connecting-rods extending to the windmill rod or lever connected thereto; in the construction and novel arrangement of the biting-shoulders of the laterally-notched pawl and the pivot-bearing between said shoulders; and in the combination, with the weighted arms, pivoted clutch-pawls, and flanged clutch-wheel, of the angle-lever pivoted by one end to a stationary bearing, and having connections extending to the reciprocating rod of a windmill, to the clutch-pawls, and to the mechanism operating a pump, all as hereinafter set forth.

In the accompanying drawings, the letter A designates a strong frame-work, consisting of the sills B and supports C, which are usually arranged in inclined position, and provided with cap-plates D, which form the journal-seats for the shaft E. The journal caps and oil-boxes are indicated at F.

On the shaft E are keyed or otherwise rigidly secured the cog-wheel G and the clutch-wheel H, which is formed with the circular lateral flanges a.

Pivoted on the shaft E, at each side of the clutch-wheel H, are the gravitating arms K and L, each of which is weighted, as indicat-

ed at b and c, the weight, however, in the case of the arm K being on the opposite side of the shaft, while that of the arm L is on the same side with the arm. Each arm is provided with a clutch-pawl, P, which is pivoted thereto at d. The clutch-pawl is formed with a lateral notch or clutch-bearing, e, having the oblique walls g and angular biting-edges h, said walls and biting-edges being on opposite sides of the pivot d. Each pawl is also provided with an outwardly-turned arm, k, to which is pivoted a connecting-rod, l, the upper end of which is pivoted to the reciprocating rod of a windmill or to a lever, N, which is pivoted to a stationary bearing at m and connected to such reciprocating rod. The latter arrangement is preferred, because it enables the movement of the windmill to be further utilized. For this purpose the lever N is formed with an arm, n, extending upward or downward from its pivotal portion p, and connected by means of a rod, r, to the pump-lever R. By means of the angle-lever the reciprocating motion of the windmill-rod is not only utilized to run the converting-motor, but also to operate the pump.

A second shaft, s, is arranged in bearings t of the frame of the converting-motor, and carries a pinion, v, which engages the cog-wheel G. To the end of this shaft a band-wheel, chain-wheel, or sprocket-wheel may be secured, as indicated at Z.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In a machine for converting reciprocating into rotary motion, the combination, with the laterally-flanged clutch-wheel and the shaft E, to which it is secured, of the gravitating arms K and L, pivoted on said shaft, the clutch-pawls P, pivoted to said arms, and the rods l, pivoted to arms k of said clutch-pawls, substantially as specified.

2. In a machine for converting reciprocating into rotary motion, the clutch-pawl P, having the lateral notch e between inclined clutch-shoulders g, the pivot d between said shoulders, and the outwardly-extended arm k, substantially as specified.

3. The combination, with the shaft E, the

5 weighted arms LK, pivoted thereon, the flange-wheel H, secured thereto, and the clutch-pawls P, having the outwardly-extended arms k, pivoted to said weighted arms, of the angle-lever N, pivoted by one end to a stationary bearing, and having connections extending to the reciprocating rod of a windmill, to the clutch-pawls, and to the pumping-lever, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES F. WINCHELL.

Witnesses:

THEO. MUGEN,  
PHILIP C. MASI.