

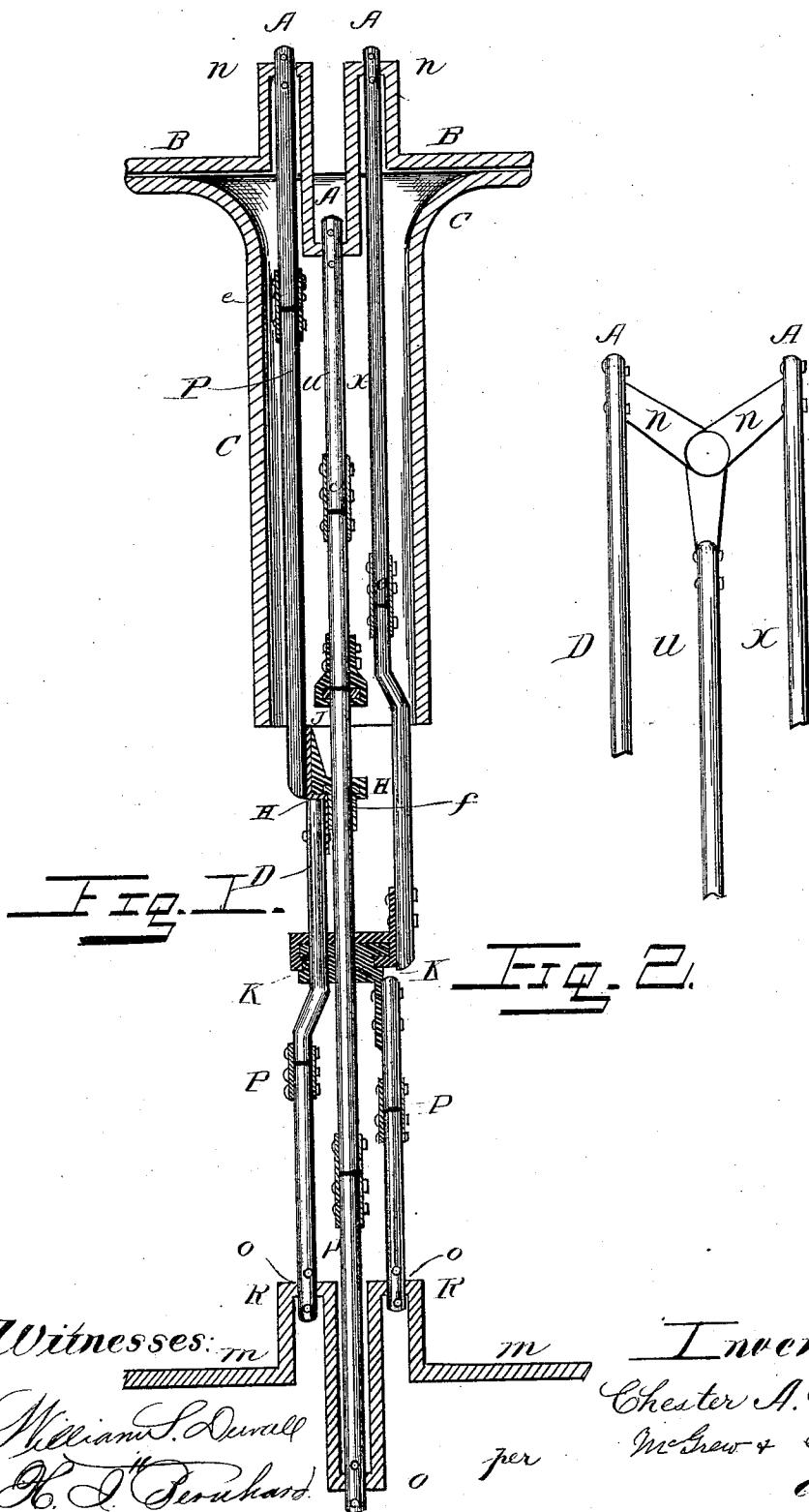
(No Model.)

C. A. HODGE.

DEVICE FOR CONVERTING MOTION.

No. 282,727.

Patented Aug. 7, 1883.



# UNITED STATES PATENT OFFICE.

CHESTER A. HODGE, OF BELOIT, WISCONSIN.

## DEVICE FOR CONVERTING MOTION.

SPECIFICATION forming part of Letters Patent No. 282,727, dated August 7, 1883.

Application filed November 23, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, CHESTER A. HODGE, a citizen of the United States, residing at Beloit, in the county of Rock, State of Wisconsin, have invented new and useful Improvements in Rotary Movements or Powers, of which the following is a specification.

My invention relates to contrivances for converting motion, particularly rotary, into reciprocating, especially adapted for wind engines or mills.

The objects of my invention are to transmit a steady, uniform, and even motion for grinding to wind engines or mills, or pumping, or to other machinery for other purposes; to simplify or render less complicated such appliances, and consequently to cheapen the same and to put such within the reach of all having need of them; to adapt the contrivance to any kind of wind engines or mill, including those wind-engines requiring a special form of motor; to provide for the adjustment of the appliance without employing skilled hands, it being as easily and readily adjusted as a wind-engine, and to provide for its application to windmills using wooden parallel rods, which do not expand and contract by heat and cold, and are always self-adjusting. I accomplish these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of my invention, and Fig. 2 is a detailed broken-away view thereof.

The same letters refer to the same parts in the different views.

In the drawings, D U X are three connecting rods or pitmen, each being formed in a number of sections jointed together at e P, and connected to cranks n R at A. O, no one of which cranks (which may be eccentrics) of the upper and lower series is arranged in the same plane. The rod D has two of its sections

swiveled together and to the rod U, as at H, while rod U has two of its sections swiveled together at J, and rod X has two of its sections swiveled together and to the rods D and U, as at K, whereby it will be seen that with the shifting of the wind (to permit the wheel to conform to the direction of the wind) the pedestal or support C for the upper crank-bearings, B, will be enabled to have like movement, and thus prevent interference with the working movement or operation of the rods or pitmen of the mill, it thereby being enabled to continue its work regardless of the shifting of the mill from one quarter to the other.

The pitmen-joints e and P at top and bottom of rotary parallel rods D U X are to relieve the parallel rods of any and all binding or friction. The bottom crank-rods are designed to be adapted for attachment to the pump or machinery of any kind desired.

In high, sudden, or changeable winds the pedestal, with sections of the pitmen and wheel, will turn without irregularity and will not be liable to be crippled in its operation or injured.

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

1. The combination of the two series of crank-shafts and the pitmen or connecting-rods composed of swiveled-together sections, substantially as and for the purpose set forth.
2. The combination of the crank-shafts, the rotatable pedestal, and the pitmen, composed of sections swiveled together, said pitmen being also swiveled together, substantially as and for the purpose set forth.

CHESTER A. HODGE.

In presence of—

D. W. DAKE,

B. DANA TREADWAY.