(No Model.)

A. DITSON.

MECHANISM FOR CONVERTING MOTION.

No. 266,784. Patented Oct. 31, 1882.

Fig. 1

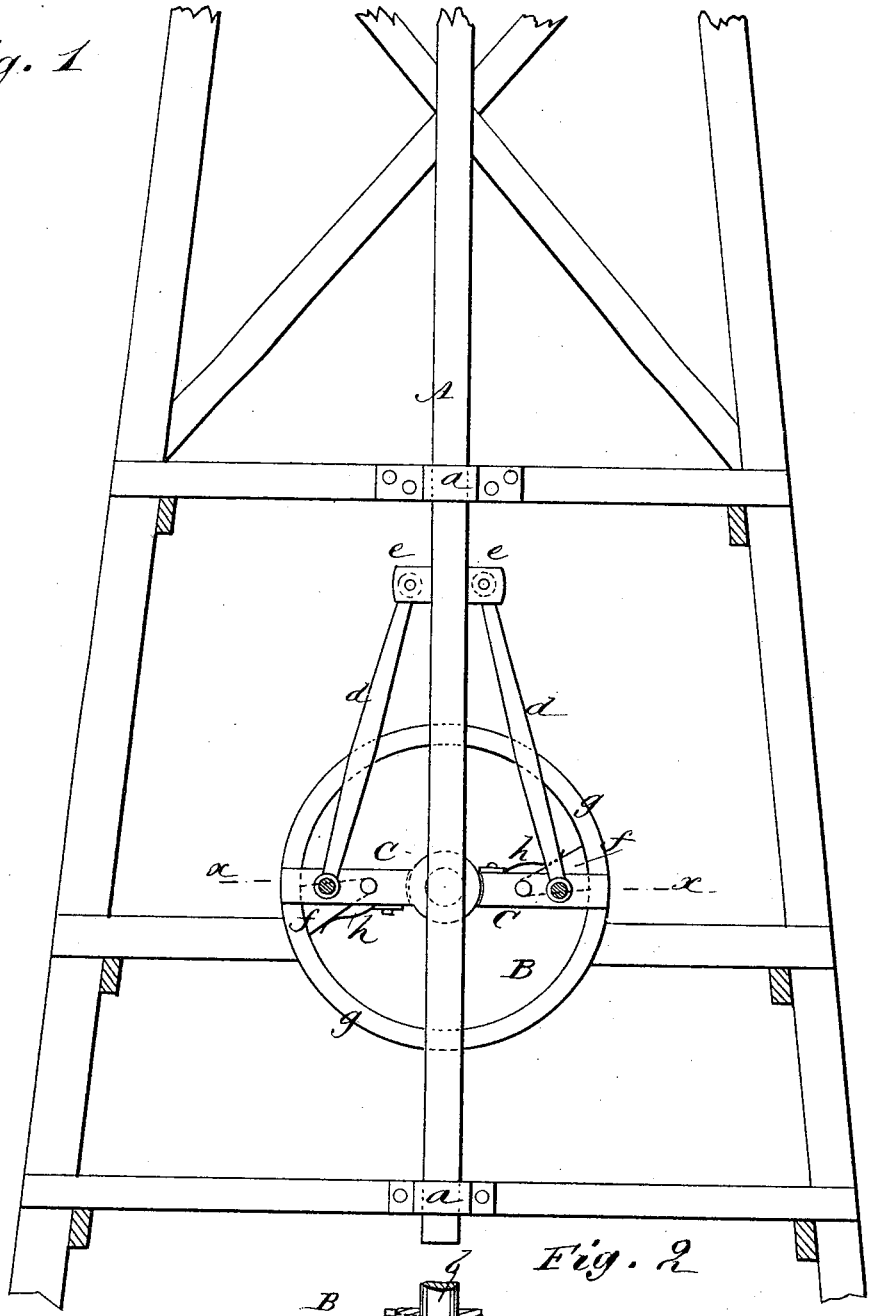
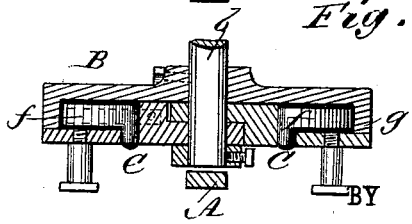


Fig. 2



WITNESSES:

C. Neveux

C. Sedgwick

INVENTOR:

A. Ditson

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALLEN DITSON, OF LARNED, KANSAS, ASSIGNOR TO HIMSELF AND JOHN LUND, OF SAME PLACE.

MECHANISM FOR CONVERTING MOTION.

SPECIFICATION forming part of Letters Patent No. 266,784, dated October 31, 1882.

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

To all whom it may concern:

Be it known that I, ALLEN DITSON, of Larned, in the county of Pawnee and State of Kansas, have invented a new and useful Improvement in Mechanism for Converting Motion, of which the following is a full, clear, and exact description.

The object of my invention is to provide simple means of converting reciprocating rectilinear into continuous rotary motion, so as to avoid dead-centers.

The invention is especially adapted to windmills, but may be used wherever available.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation of my improved mechanism as applied in connection with the pump-rod of a windmill. Fig. 2 is a transverse section of line *x x* of Fig. 1.

A is the reciprocating rod of a windmill, fitted to work in boxes *a a* on the frame of the tower.

B is a wheel or disk secured on the horizontal shaft *b*.

C C are arms fitted loosely upon the shaft *b* and connected by rods *d d* to gibs *e* on the rod A. The arms C extend at opposite sides of the shaft *b*, and are provided with pawls or dogs *f*, that take against the inner surface of a flange, *g*, that is formed on the rim of the wheel B. The pawls *f* are pressed in contact with the flange of the wheel by springs *h*.

In operation as the rod reciprocates the arms C are oscillated on the shaft by their connection to the rod, and at each upward and downward movement of the arms one of the pawls or dogs *f*, by its hold upon the flange of the wheel, gives rotation thereto and to the shaft *b*. The pawls are so arranged that one binds by the upward movement and the other by its downward movement, and in this manner the wheel and shaft are given a continuous rotary motion.

When applied in connection with windmills, as shown, the pump-rod A is extended in front of the wheel B, so that it may be used for pumping in the usual manner, while the rotary motion imparted to the shaft may be utilized for driving machinery that requires a continuous rotary motion.

This mechanism may be applied wherever available for the purpose of converting motion, and it will be seen that the construction is simple and the parts are not liable to get out of order or become inoperative from wear.

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

1. The combination, with a rotating shaft, a reciprocating rod, and rods connecting it with pawls and carriers swiveled on said shaft, substantially as shown and described, of a fixed wheel having a right-angled peripheral flange, with the inner side of which latter the pawls alternately engage, substantially as set forth.

2. In a machine for converting motion, the flanged wheel B, shaft *b*, pawl-carriers C, pawls *f*, springs *h*, connecting-rods *d*, and reciprocating rod A, all constructed and operating substantially as shown and described.

ALLEN DITSON.

Witnesses:
W. R. ADAMS,
M. D. BAILEY.