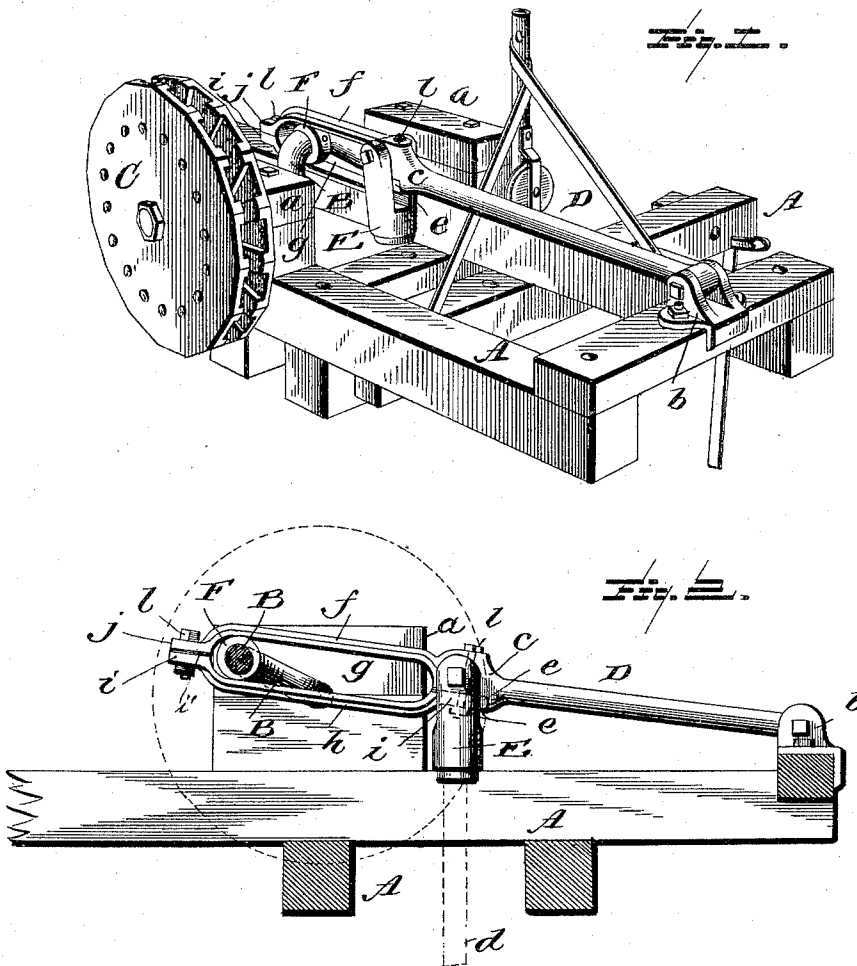


(No Model.)

C. T. TARPENNING & L. B. SHERWOOD.
MEANS FOR TRANSMITTING POWER.

No. 477,469.

Patented June 21, 1892.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES T. TARPENNING, OF FRESNO, AND LINCOLN B. SHERWOOD, OF
TURLOCK, CALIFORNIA.

MEANS FOR TRANSMITTING POWER.

SPECIFICATION forming part of Letters Patent No. 477,469, dated June 21, 1892.

Application filed August 20, 1891. Serial No. 403,220. (No model.)

To all whom it may concern:

Be it known that we, CHARLES T. TARPENNING, residing at Fresno, in the county of Fresno, and LINCOLN B. SHERWOOD, residing at Turlock, in the county of Stanislaus, State of California, citizens of the United States, have invented certain new and useful Improvements in Means for Transmitting Power, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in means for transmitting power, designed for use in any and all connections where it is desired to transform rectilinear into vertical motion. It is designed, primarily, for windmills; but the invention is not restricted to such use.

It has for its objects, among others, to provide improved, simple, cheap, and durable mechanism for transmitting the power and for taking up or preventing wear upon the crank-shaft. We provide the lift-arm with an elongated loop at the end farthest from its fulcrum, and in this loop the crank-shaft is designed to work. This crank-shaft is provided with a collar which turns back and forth as the wheel turns, which tends to reduce the friction. One-half of the loop is formed on the lift-arm, and the complement is formed by a detachable piece secured thereto to provide for ready insertion or removal of the crank-shaft therefrom.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of our invention. Fig. 2 is a longitudinal vertical section through the same.

Like letters of reference indicate like parts in both views where they occur.

Referring now to the details of the drawings by letter, A designates a suitable frame-work or support, which may be of any well-known construction, and upon which are suit-

ably supported the boxes or bearings *a* for the crank-shaft B. We have not shown more of the frame-work or support or the tower or wheel, as these parts do not form a part of the present invention. The hub portion C of the wheel is shown; but it will of course be understood that the wheel and its hub may be of any of the well-known or preferred forms of construction. The means for throwing the wheel into and out of the wind and for stopping the same may be of any preferred form.

D is the lift-arm, pivoted at one end between ears or lugs *b* on the frame-work or platform or support, as shown. At a point substantially midway its ends it is formed with an enlargement *c*, to which is swiveled or otherwise connected the bifurcated head E, which is adapted to receive the plunger or pump rod, (indicated by dotted lines at *d*.) The under side of the lift-arm at this enlargement is formed with an offset or shoulder *e* and from that point toward its other end with a half-loop *f*, as seen best in Fig. 2, the remaining portion of the loop *g* being formed by the half-loop *h*, which at the ends is provided with flat bearings *i* to engage corresponding bearings *j* upon the upper half of the loop, and to which they are detachably secured in any suitable manner, as by the bolts *l*, as shown in Fig. 2. Upon the crank-shaft at the point within the loop is a collar F of any suitable material, and which turns back and forth as the wheel revolves and serves to lessen the friction and prevent wear on the crank-shaft.

The operation will be readily understood from the foregoing description, when taken in connection with the annexed drawings, and a detailed description thereof is not deemed necessary. For instance, we may employ a packing between the upper and lower parts of the loop, as indicated at *i'* in Fig. 2, so that should the parts become worn a part of the packing can be removed and the loop still fit tight, thus taking up the lost motion and wear.

What we claim as new is—

1. The combination, with the bifurcated head and the lift-arm pivoted between the bifurcations of said head and formed with enlargement, offset, and half-loop with flat bearing-surfaces, of the half-loop having flat bear-

ing-surfaces and adjustably connected to the flat bearings of the portion of the loop upon the arm, as set forth.

2. The combination, with the pivoted lift-
5 arm having enlargement and shoulder or offset at said enlargement and an integral one-half loop, of the complement of the loop having a portion engaging said shoulder and with flat bearings, and detachable means connecting the parts at said bearings, and the bifurcated head, between the bifurcations of

which said lift-rod is pivoted, and the crank-shaft having the collar bearing upon and working in the said loop, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES T. TARPENNING.
LINCOLN B. SHERWOOD.

Witnesses:

G. S. COLQUHORN,
W. D. WEAVER.