A. E. NICKERSON & L. C. STREETER.

Means for Pumping Wells.

No. 164,756. Patented June 22, 1875.

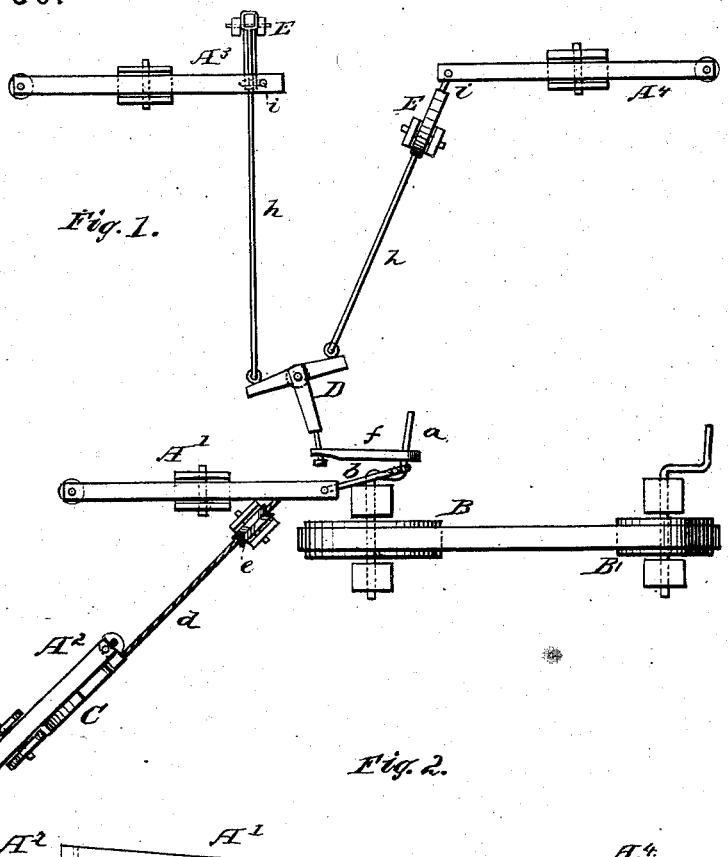


Fig. 1.

Fig. 2.

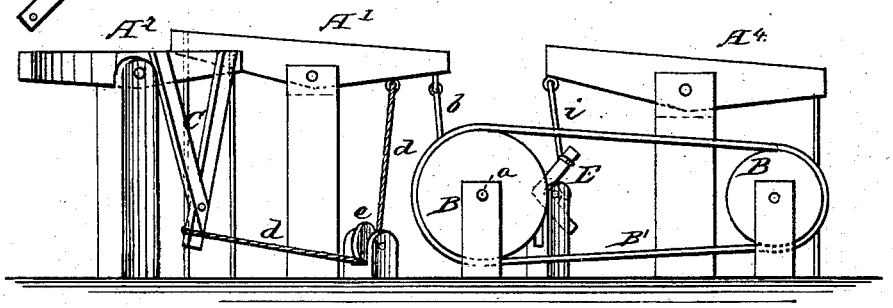
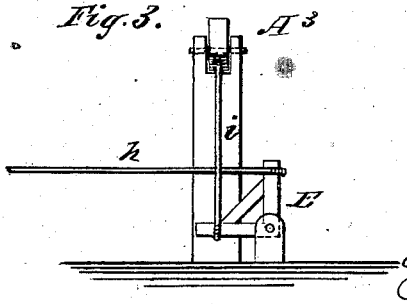


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT E. NICKERSON AND LEVI C. STREETER, OF ALLEGHENY TOWNSHIP, VENANGO COUNTY, PENNSYLVANIA.

IMPROVEMENT IN MEANS FOR PUMPING WELLS.

Specification forming part of Letters Patent No. **164,756**, dated June 22, 1875; application filed May 31, 1875.

To all whom it may concern:

Be it known that we, ALBERT E. NICKERSON and LEVI C. STREETER, of Allegheny township, county of Venango, State of Pennsylvania, have invented or discovered a new and useful Improvement in Means for Pumping Wells; and we do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—like letters indicating like parts—

Figure 1 is a plan view of our invention. Fig. 2 is a side elevation of the same, and Fig. 3 is a detailed view of a part thereof.

Our invention is intended as an improvement upon the Letters Patent No. 162,406, granted to us April 20, 1875; and the nature of our invention consists in the construction and arrangement of certain devices for operating two or more independent walking-beams in different directions at the same time, and thus counterbalance each other, as will be hereinafter more fully set forth.

A^1, A^2, A^3, and A^4 represent the four walking-beams of the pumps operating in four different wells. B is the band-wheel or equivalent device, driven by a belt, B′, from the engine. On the shaft or journal of the band-wheel B is a crank, *a*, connected by a pitman, *b*, with one end of the walking-beam A′, the other end of said walking-beam having the pump-plunger attached to it. From the pitman end of the walking-beam A′ a rope or chain, *d*, passes around a pulley, *e*, and connects with braces C depending from the well end of the walking-beam A^2, the two walking-beams A^1 and A^2 being thus operated from the crank *a* in opposite directions at the same time. The crank *a* is further, by a pitman, *f*, connected with one arm of a T-shaped lever, D, pivoted as shown. The two side arms of the lever D are, by rods *h h*, connected with L-shaped levers E E, and the other ends of said levers are, by rods *i i*, connected with the ends of the walking-beams A^3 and A^4 respectively. These two walking-beams are thus also at the same time operated from the same crank in opposite directions. The connections between the crank *a* and the walking-beams a^3 a^4 are, as will be observed, positive, making their movement certain and reliable.

Other walking-beams may be, in like manner, connected to and operated by the same crank, thus having a series of walking-beams operated from a single crank by one motor, and every pair of beams is always moving in opposite directions, and thus balancing each other.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the band-wheel B with crank *a*, the pitman *b*, walking-beam A^1, rope or chain *d*, pulley *e*, and walking-beam A^2, having depending braces C, substantially as and for the purposes herein set forth.

2. The combination, with the band-wheel B and crank *a*, of the pitman *f*, T-shaped lever D, rods *h h*, L-shaped levers E E, rods *i i*, and walking-beams A^3 A^4, substantially as and for the purposes herein set forth.

In testimony whereof we have hereunto set our hands.

ALBERT E. NICKERSON
LEVI C. STREETER.

Witnesses:
GEORGE H. CHRISTY,
J. E. BOGGS.