

*J. T. Wright,
Crane.*

N^o 49,579.

Patented Aug. 22, 1865.

Fig. 1.

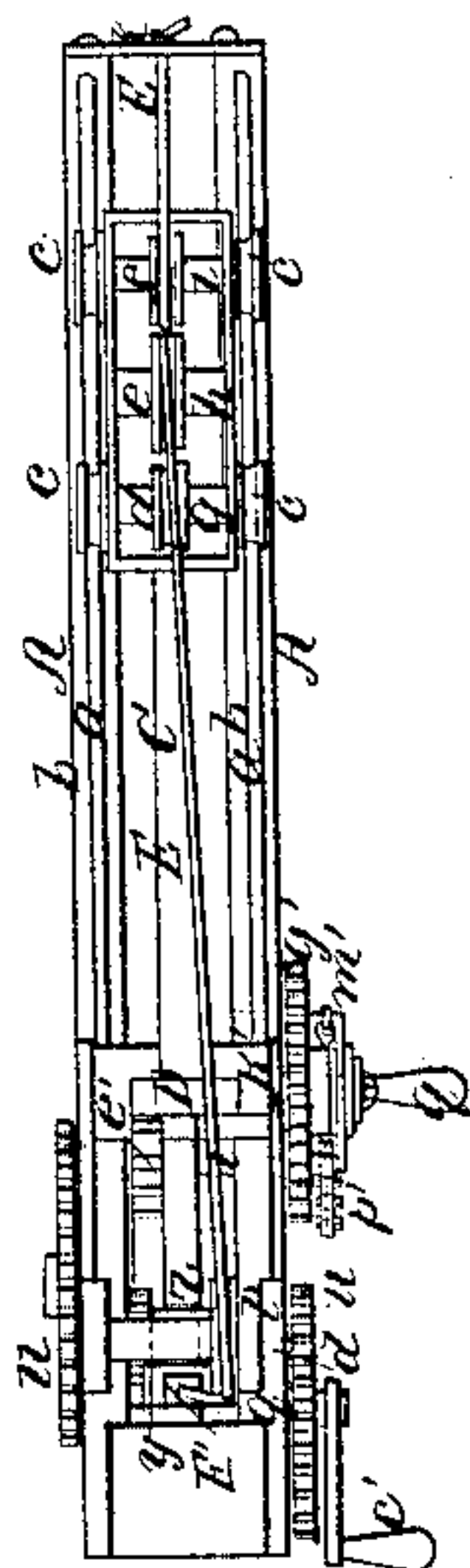


Fig. 3.

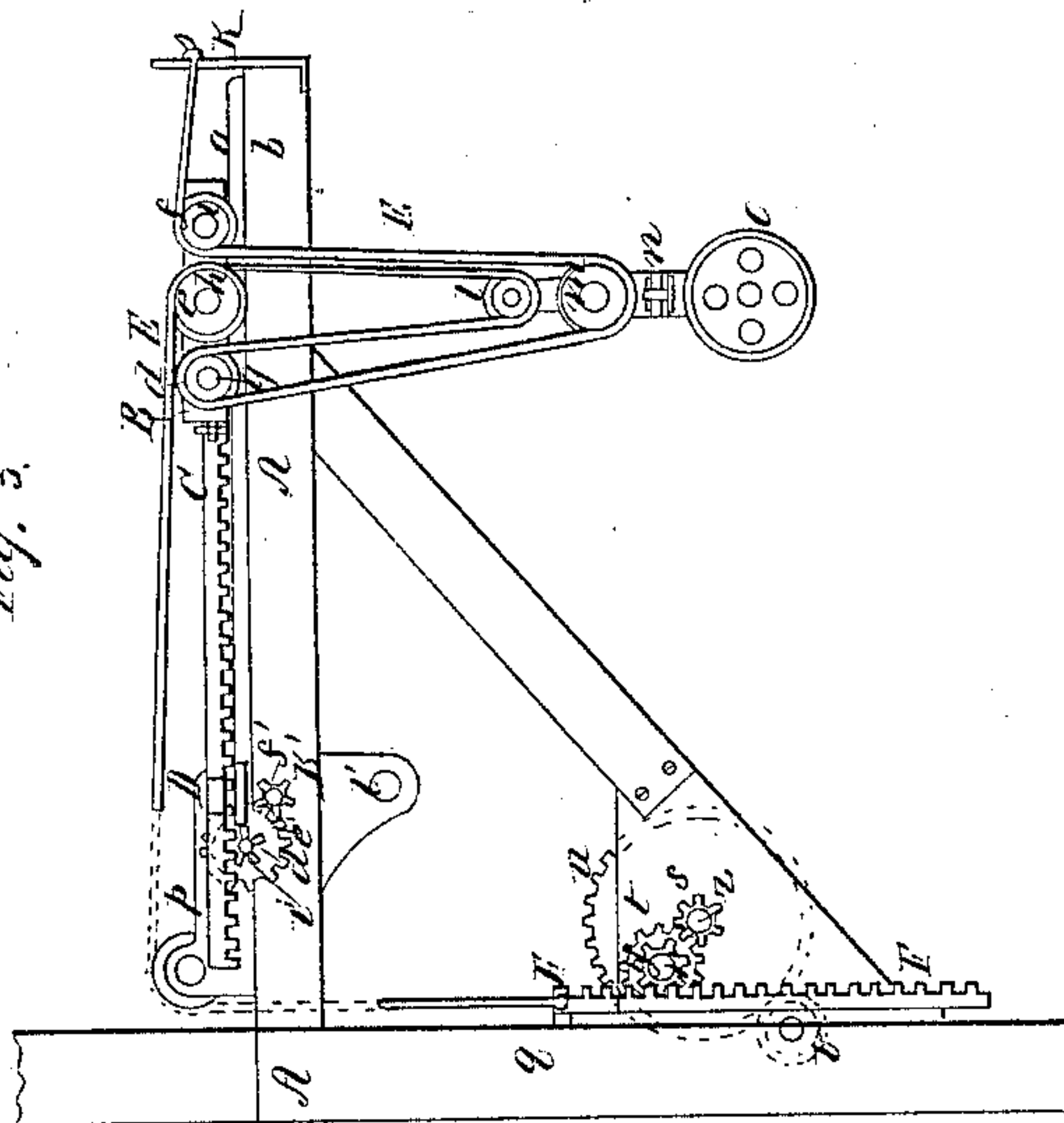
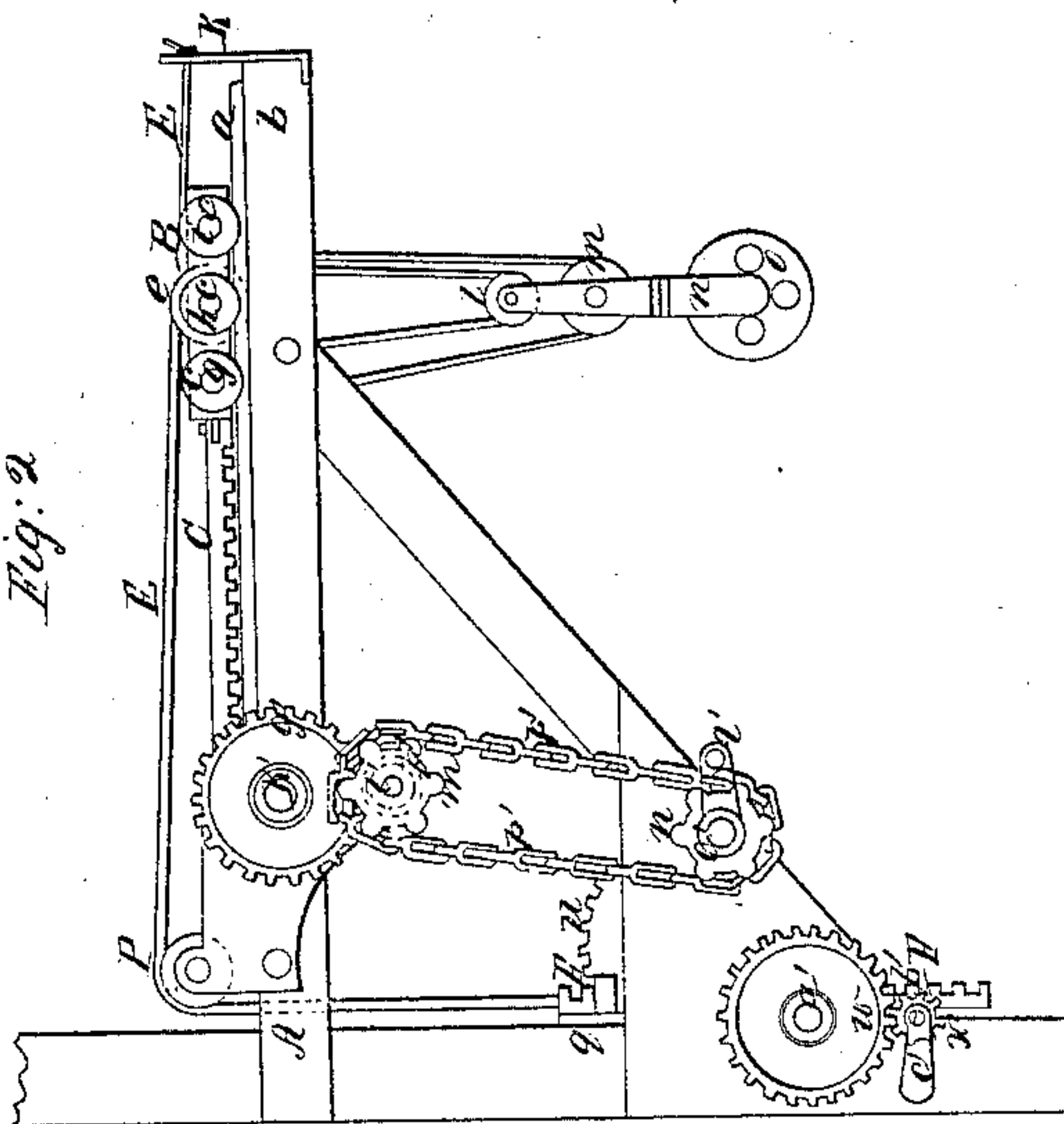


Fig. 2.



Witnesses;

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By his attorney
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UNITED STATES PATENT OFFICE.

JESSE THOMPSON WRIGHT, OF NASHUA, NEW HAMPSHIRE.

IMPROVED ELEVATING-CRANE.

Specification forming part of Letters Patent No. 49,579, dated August 22, 1865.

To all whom it may concern:

Be it known that I, JESSE THOMPSON WRIGHT, of Nashua, of the county of Hillsborough and State of New Hampshire, have invented an Improved Crane for use in Foundries; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of it.

In such drawings, A denotes the frame of the crane, which, when in use, is to be set up and supported in the ordinary manner. Above the parallel rails *a a*, applied to the arms *b b* of the frame, there is a pulley-carriage, B, whose wheels *c c c c* rest on the rails. This carriage is provided with a long rack, C, which extends therefrom and through a guide, D, in manner as shown in Figs. 1, 2, and 3. Within the pulley-carriage are three grooved pulleys, *d e f*, which revolve freely on shafts *g h i*. A rope, E, attached to a standard, *k*, situated on the outer end of the arms, is carried around these pulleys and two pulleys, *l m*, carried by a swivel, *n*, which supports a larger pulley, *o*, the whole being as shown in the drawings. From the carriage B the rope E extends to and around a pulley, *p*, arranged over the part *q* of the crane. Thence the rope is carried downward and attached to the upper end of a rack, F, arranged alongside of the said part *q*, as shown in Fig. 3. The rack F engages with a train of gears, *r, s, t, u, v, w*, and *x*, applied to four shafts, *y z a' b'*, arranged as shown in Figs. 1, 2, and 3. A crank, *c'*, is fixed on the shaft *b'*. By laying hold of and turning the said crank the rack F may be moved either upward or downward, so as to either draw on

or let out the rope in a manner to cause the pulley *o* to be either elevated or depressed.

The rack C engages with a train of gears, *d', e', f', g'*, and *h'*, applied to three shafts, *i' k' l'*, duly supported within the crane-frame and arranged as shown in Figs. 1, 2, and 3. The latter shaft, *l'*, has a sprocket-wheel, *m'*, fixed on it, around which and another sprocket-wheel, *n'*, carried by a shaft, *o'*, an endless chain, *p'*, travels.

By laying hold of the crank *q'* applied to the sprocket-wheel *n'* and revolving such wheel the rack C will be put in motion, so as to move the pulley-carriage either backward or forward on the arms of the crane.

The special use and adaptation of the racks to the train of gears and other parts of the crane, as explained, render it very advantageous for use in a foundry, and much more reliable and easy of operation than when provided with the usual appliances for operating the main pulley and its carriage.

I claim—

1. The combination for operating or raising and lowering the pulley *o*, the same consisting of the rope E, the pulleys *l m d e f p*, the rack F, and the train of gears *r, s, t, u, v, w*, and *x*, applied to the four shafts *y z a' b'*, the whole being arranged as set forth.

2. The combination for operating the pulley-carriage B, the same consisting of the rack C, the train of gears *d', e', f', g'*, and *h'*, applied to the shafts *i' k' l'*, the sprocket-wheels *n' o'*, and chain *p'*, the whole being arranged substantially as hereinbefore explained.

J. THOMPSON WRIGHT.

Witnesses:

R. H. EDDY,
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