

(No Model.)

J. R. ANGEL.

WAGON JACK.

No. 279,903.

Patented June 26, 1883.

Fig. 1.

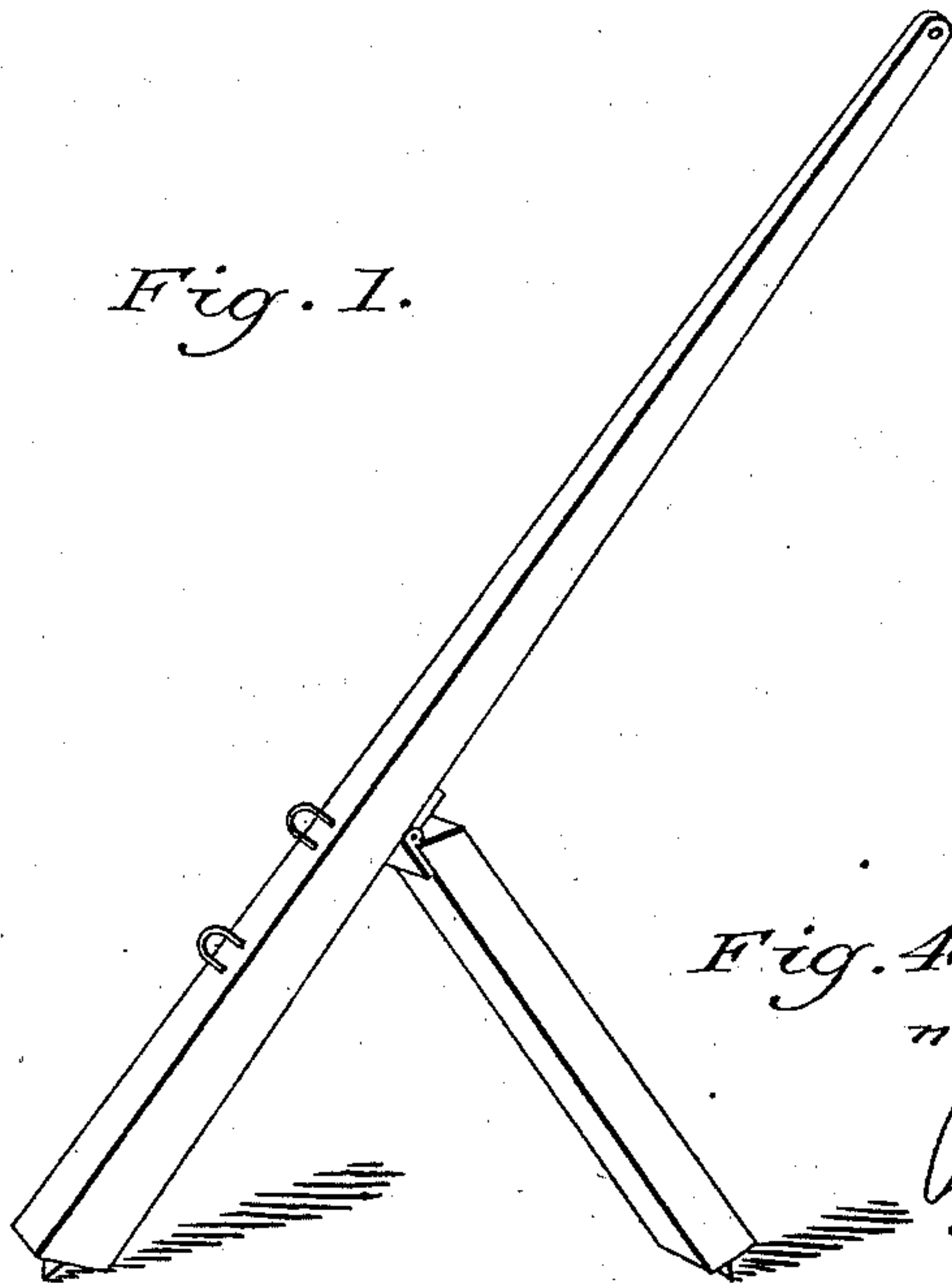


Fig. 4.



Fig. 5.

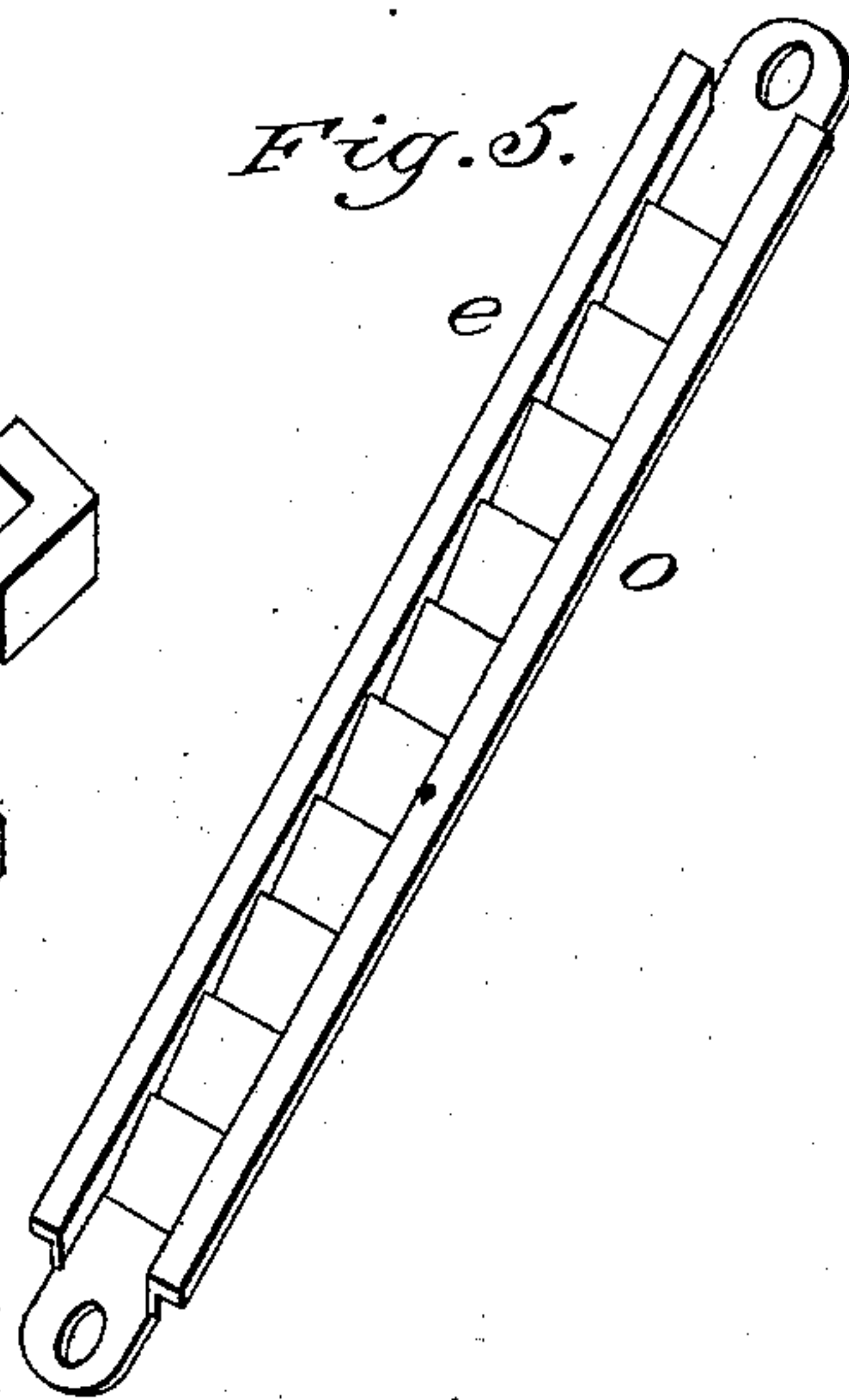


Fig. 3.

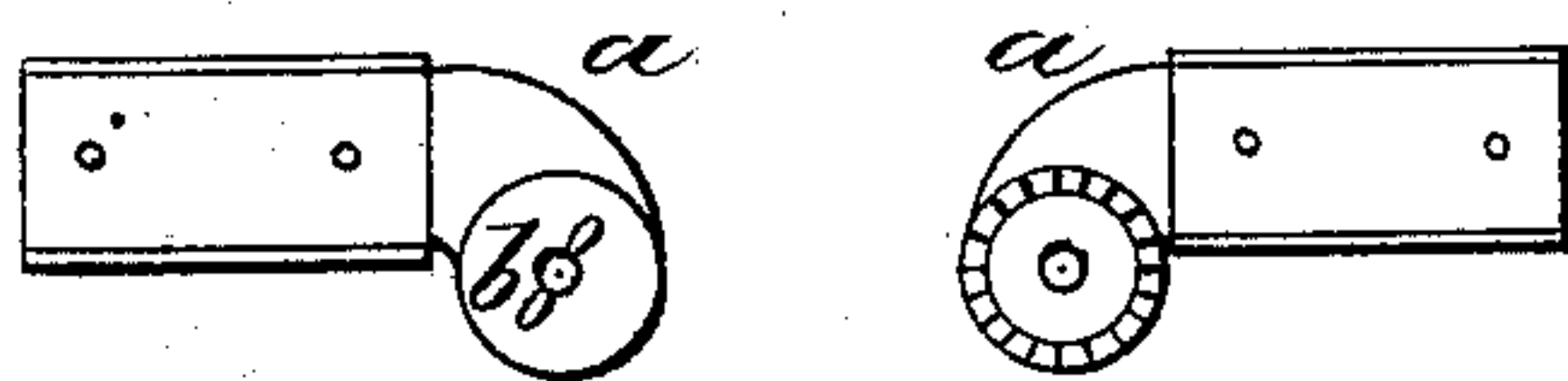
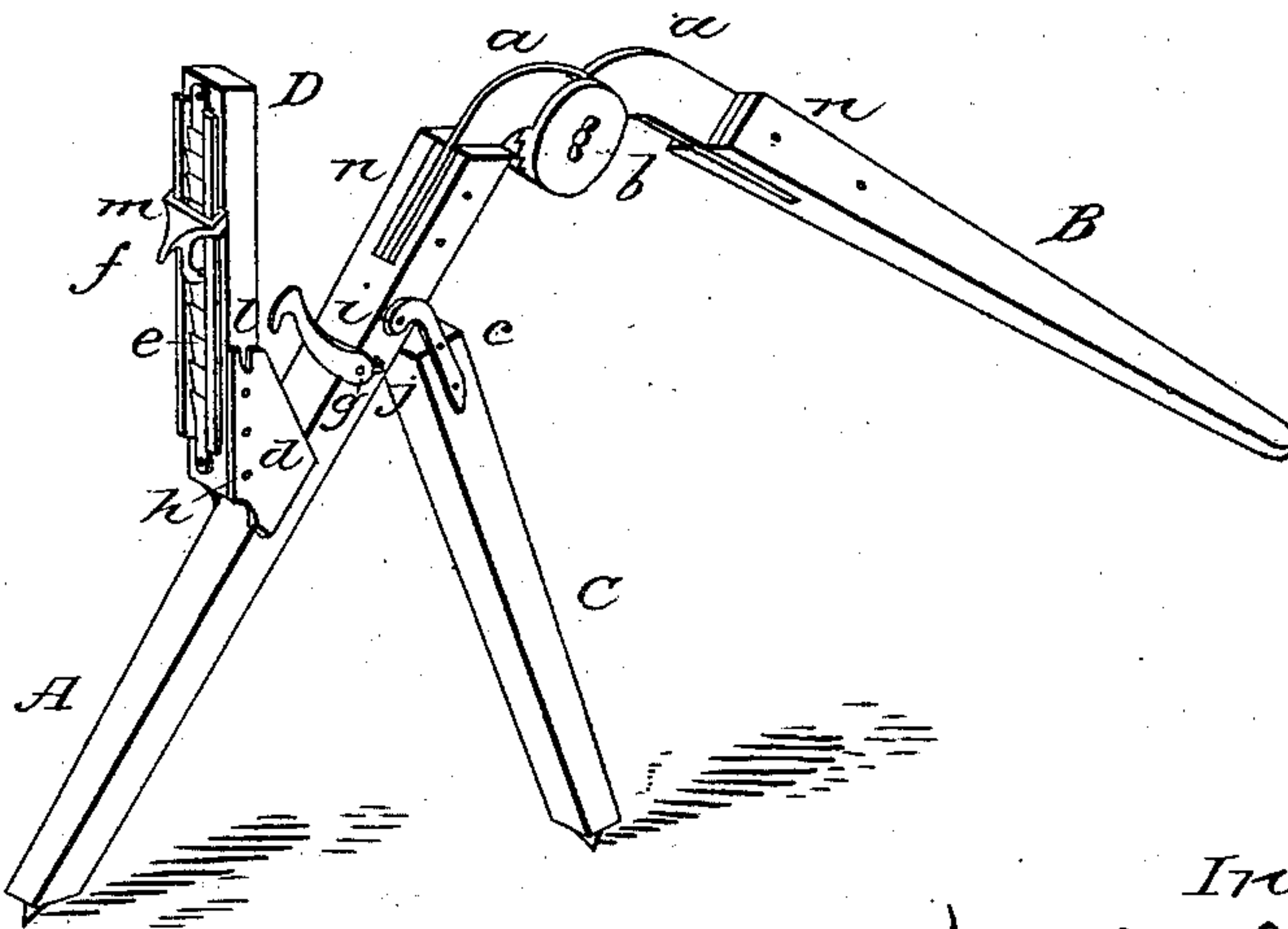


Fig. 2.



Witnesses:

E. J. Fuller
B. M. Hoffman
Homer Camp

Inventor:

Joseph R. Angel

UNITED STATES PATENT OFFICE.

JOSEPH R. ANGEL, OF CAMPTOWN, PENNSYLVANIA, ASSIGNOR TO LOUIS F. CAMP AND EDWARD E. CAMP, OF SAME PLACE.

WAGON-JACK.

SPECIFICATION forming part of Letters Patent No. 279,903, dated June 26, 1883.

Application filed October 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. ANGEL, of Camptown, in the county of Bradford and the State of Pennsylvania, have invented certain
5 new and useful Improvements in Wagon-Jacks; and I do declare that the following is a full, clear, and exact description, construction, and operation of the same, reference being had to the annexed drawings, making a part of
10 this specification.

My invention relates to improvements on wagon-jack Letters Patent issued to me, JOSEPH R. ANGEL, the 22d of April, 1879, No. 214,607, (shown in Fig. 1 in the annexed drawings;) and the objects of my improvements are, first, to provide an increased leverage for raising loaded wagons; second, to avoid the pushing of the wagon forward as the axle is being raised; third, to provide an adjustable rest
15 for axles of different heights; fourth, to enable the use of the wagon-jack when the box or load projects over the wheels of the wagon, and for a more convenient and compact form of folding for carrying in a wagon; fifth, for a more
20 substantial hinge to leg or brace, that the wagon may stand firm and stable with the wheel off. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

30 Fig. 2 represents the wagon-jack complete as improved, and in position as placed under the axle of the wagon for the purpose of raising the wheel.

A represents the leg or lower half of the main lever, to which is attached the leg or brace C by hinge *c*, and the adjustable standard D by the hinge *d* and the half of ratchet-hinge *a*, by which it is connected to B.

40 B represents the handle or upper half of main lever, to which is attached the other half of ratchet-hinge *a*.

A and B, joined together by a bolt and tightened or loosened by a winged nut passing through ratchet-hinge *a a*, form the main lever complete, which may be adjusted to any angle desired by manipulating the winged nut *b*.

C represents a leg or brace attached to A by a hinge, *c*.

50 D represents an adjustable standard fastened to A by hinge *d*.

a a, as shown in Fig. 3, represent a sectional view of the ratchet-hinge *a a*, Fig. 2, the right-hand figure showing the ratchet-face and the left-hand figure the outer or plane face. They are connected and adjusted by a
55 bolt and winged nut, *b*, passing through the center of the ratchets. They are joined to A and B by a slot-mortise in the ends of A and B, in which they are inserted and held secure by two bolts in each, and flanges on the upper
60 and lower edges of each.

c is composed of two plates, fastened one on each side of C (only one of which is shown in annexed drawings) by two bolts, and attached to A by bolt *i*, forming a pivot by which C
65 swings and adjusts itself.

d is a hinge composed of two plates, fastened one each side of D (one plate only being shown in the annexed drawings) by three bolts, and attached to A by bolt *h*, passing through the
70 plates and A, forming a pivot by which standard D adjusts itself.

e, Fig. 5, (on a larger scale,) represents the ratchet-plate with a raised flange on either side, on which the axle-rest *f* slides and is held
75 in position. This is fastened, by a screw, *k*, at each end, to the front or face side of standard D.

Fig. 4 represents the axle-rest *f* on larger scale, which is adjusted to high or low axles by sliding on ratchet *e*, being constructed with
80 claws on either side of its upper back edge, which clasp around the flanges on either side of *e*, and a dog on its lower edge, which catches in the ratchet of *e*, holding the axle-rest in position, with cushion *m* to prevent marring axle.
85

g represents a catch fastened to A by a screw, which catches into the hinge *d* at *l* and holds the jack firm and steady under the axle when the axle has been raised and A and D brought
90 together.

j is a pin on the back upper edge of catch *g*, driven into A to hold *g* in position.

m is a cushion to protect axle from being marred by axle-rest *f*.

The wagon-jack is operated by placing it
95 under the axle of the wagon to be raised in an inclined position, the foot of A being placed about one foot forward of the axle, and forming a right angle with B, the standard D being perpendicular, and the axle-rest *f* placed
100

against the under side of the wagon-axle and lifting by the handle or end of main lever B until catch *g* catches into notch *l*, when the wagon-axle will be raised sufficient to swing the wheel of the wagon clear from the ground, and leg C, following by its own gravity, swings into a position that will brace A, and holds the jack and wagon firm and steady.

I am aware that the principle of the ratchet-hinge *aa*, and hinge *c*, and hinge *d*, and the adjustable standard D, and the manner of sliding the axle-rest *f* on ratchet *e*, and the cushion *m* to axle-rest may have been applied to other mechanism prior to my invention; but what I do claim is their manner and form as applied to a wagon-jack.

I claim—

The wagon-jack improved as described, consisting, first, of ratchet-hinge *aa*, with flanges *n* on upper and under edges, to give additional strength and prevent the bolts splitting levers

A and B, as connected by bolt and winged nut for adjusting to any desired angle; second, the hinge *c*, connecting C to A, with bolt *i*, forming a pivot upon which C works; third, hinge *d*, which connects standard D to A; fourth, ratchet *e*, fastened by screws to standard D, with flanges *oo* on either side, as set forth, upon which the axle-rest slides; fifth, axle-rest *f*, Fig. 4, which slides upon ratchet *e*, with cushion *m* to prevent marring of axle; sixth, standard D, to increase leverage and prevent the pushing of the wagon forward as the axle is being raised; seventh, catch *g*, for holding standard D, and pin *j*, for holding catch *g* in position.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOSEPH R. ANGEL.

Witnesses:

L. B. CAMP,
HOMER CAMP.