

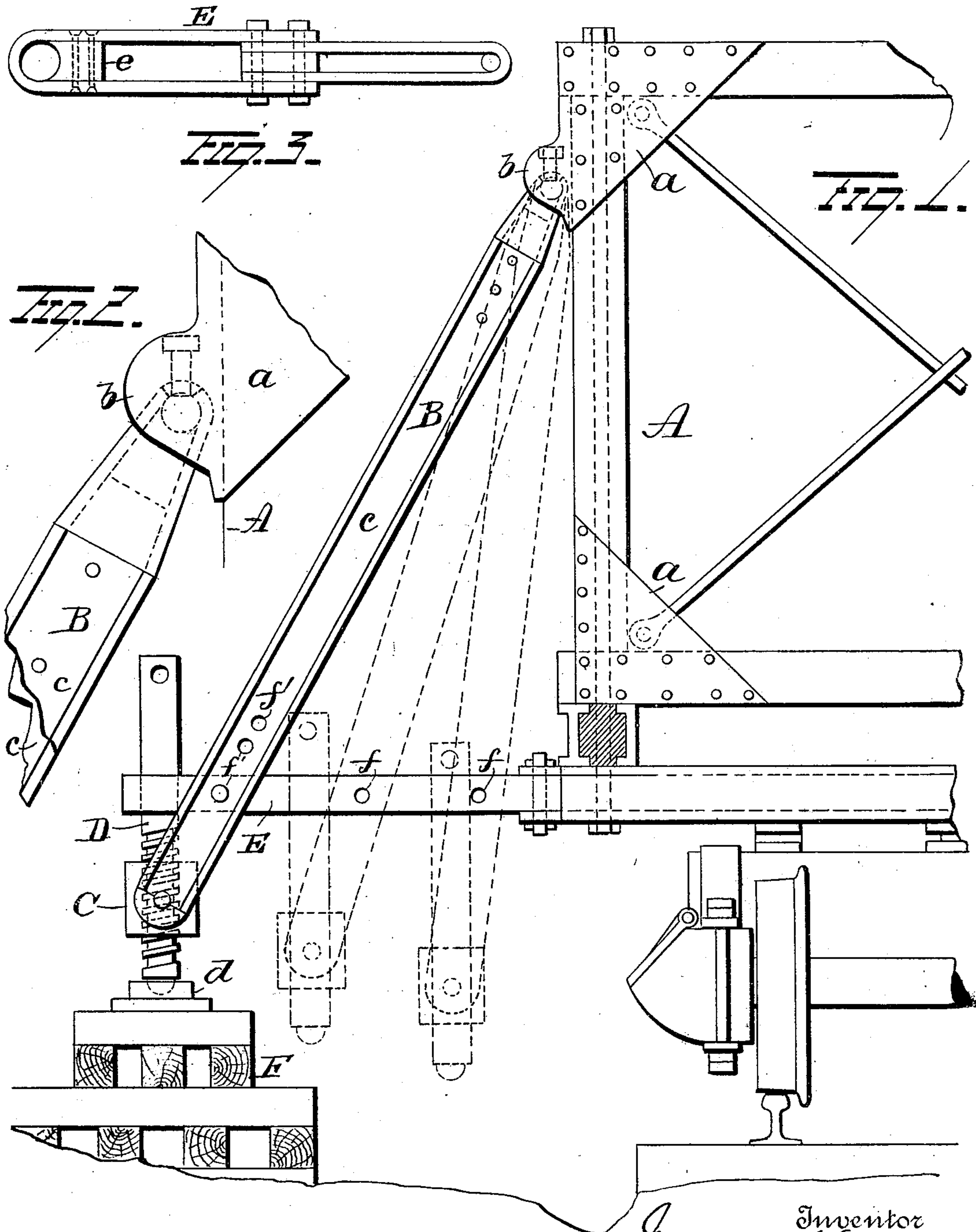
(No Model.)

G. W. KING.

JACK FOR SUPPORTING OR BRACING EXCAVATORS, &c.

No. 512,585.

Patented Jan. 9, 1894.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE W. KING, OF MARION, OHIO.

JACK FOR SUPPORTING OR BRACING EXCAVATORS, &c.

SPECIFICATION forming part of Letters Patent No. 512,585, dated January 9, 1894.

Application filed September 9, 1892. Serial No. 445,441. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. KING, of Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Jacks for Supporting or Bracing Excavators, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in jacks for supporting or bracing excavators, traveling cranes, &c., against lateral strain, the object of the invention being to produce an improved jack adapted to be attached to an excavator car, or a crane to brace the same, and to so construct said jack that it may be brought to bear upon the ground at varying distances from the car or crane as occasion may require.

A further object is to produce an improved adjustable jack for an excavator or crane, whereby said excavator or crane may be braced against lateral strain when the machine is used in wide as well as narrow cuts.

A further object is to provide an adjustable jack or an excavator to brace the machine against lateral strain, and permit the excavating shovel and crane to be operated at right angles to the car when it is desired to make a wide cut.

With these objects in view the invention consists in the combination with a car or crane, of a jack hinged or pivotally connected thereto, and adjustable fastening device connected to the lower end of said brace, whereby the car may be braced at any desired distance therefrom.

The invention also consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings:—Figure 1 is a view of a portion of a car having my improved jack or support applied thereto. Fig. 2 is a view of a modification. Fig. 3 is a detail.

A represents an excavator car preferably provided at its corners with metallic plates or braces *a* the upper ones of which are furnished with ears *b*.

B is a brace composed of a pair of parallel

members *c* connected together at their upper ends by a sockets piece *e'*. This socket piece is hollowed out as shown and is rounded internally to form a socket *c'*. A vertical bolt *c'* is held in the ears *b* and this bolt has a spherical head *c'* which is fitted to and enters the socket *c'*. In this manner a ball and socket joint is formed for the purpose of permitting the brace B to swing in a variety of directions as for instance outward, inward or alongside of the car, as occasion may require. It is obvious that other means of connection might be adopted for effecting this joint but the construction described is preferred.

Nut C is pivoted between the lower ends of members *c* of the brace B and in this nut a jack D operates. This jack is provided with the usual plate *d* at its lower end adapted to rest on a suitable blocking F in the customary manner, and at the upper end the jack is provided with a hole or is otherwise constructed to receive a device for turning it.

E is a connecting bar pivotally connected by a vertical pin *e'* at its inner end with the car whereby the bar may be swung in a horizontal plane on this pin as a pivot. This connecting bar may be made in one piece as shown in Fig. 1 or it may be composed of sections as in Fig. 2. When made in one piece sections of different lengths are employed to throw the jack out of different distances from the car, one capable of being replaced quickly by another as occasion may require. When made in sections the sections telescope as indicated in Fig. 2. In either instance I prefer to provide the outer end of the connecting bar with a socket *e* to receive and guide the jack. This may be omitted however and as indicated in dotted lines in Fig. 1 the connecting bar may have holes *f* at intervals throughout its length to correspond and align with the holes *f'* in the brace B, when the different positions render it possible, and a pin *g* is used to hold the bar and brace together.

From the construction set forth it will be seen that the entire attachment comprising the jack, brace and connecting bar may be swung alongside the car on the pins *c'* and *e'* as pivots. The object of thus folding the attachment is to enable the car to pass obstructions while being moved from place to place.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention
5 and hence I do not wish to limit myself to the exact construction herein set forth; but,

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

10 1. The combination with a brace hinged to the object to be braced, and a bar for connecting the lower end of the brace to the object braced, said bar hinged to the latter, the brace
15 and bar each having several holes therein adapted to receive a connecting pin whereby they may be secured together at different angles, and a jack connected to the outer end of one of said parts, substantially as set forth.

20 2. The combination with a brace hinged at its upper end to the object braced, and means for connecting its lower end to said object, of a block pivotally connected with the lower

end of the brace, and a screw or jack adapted to turn inside of the block, substantially as set forth.

25 3. The combination with a support, of a brace hinged thereto, a jack swiveled to the lower end of the brace, and a connecting bar connecting the brace with the support and adapted to hold the brace at varying distances
30 from the support, substantially as set forth.

4. The combination with a support, of a brace hinged thereto a nut pivotally connected to said brace at its lower end, a screw threaded jack passing through said nut, and
35 a connecting bar extending from the jack to the support, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE W. KING.

Witnesses:

JOHN A. WOLFORD,
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