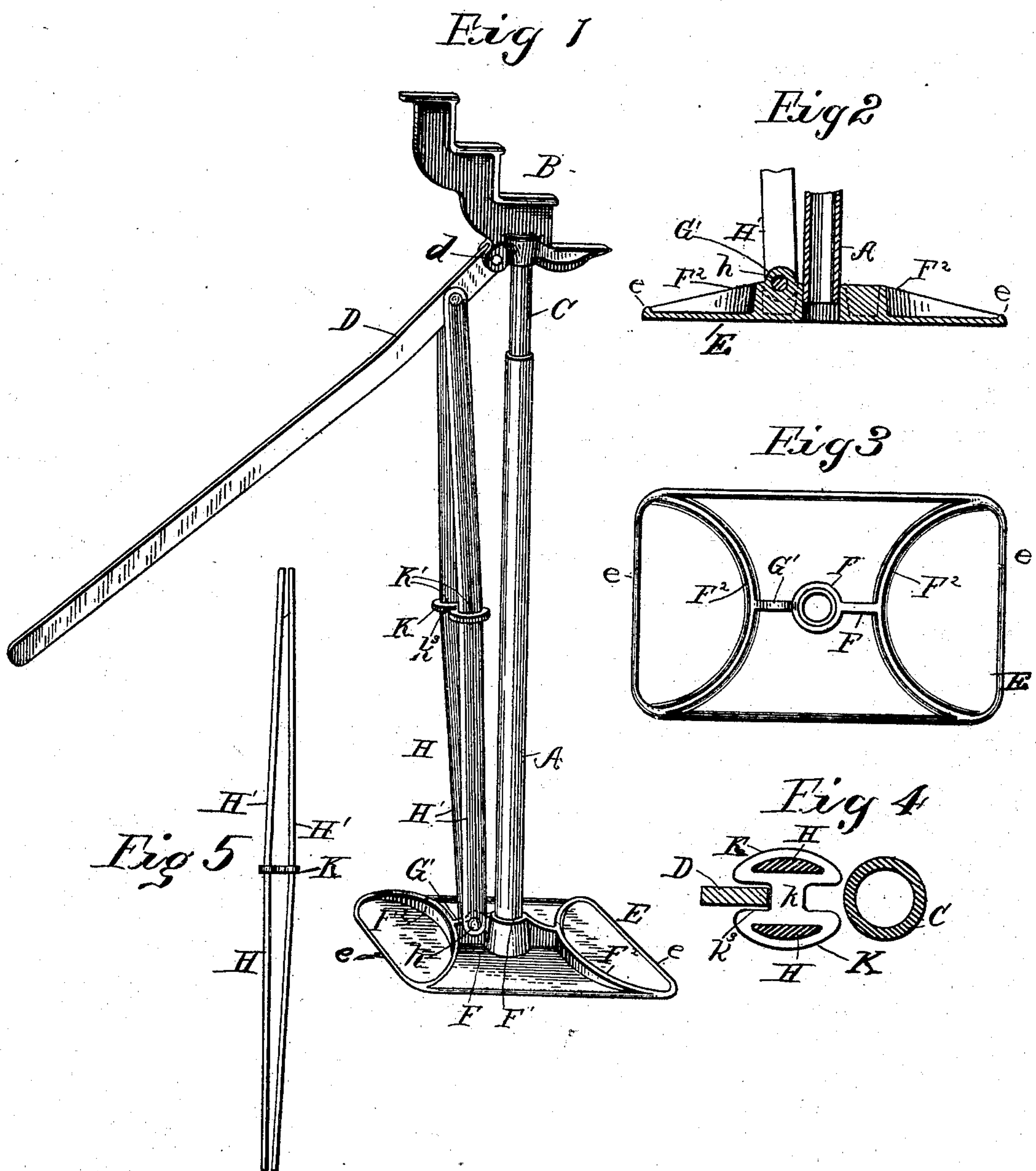


(No Model.)

C. EMONS.
WAGON JACK.

No. 502,397.

Patented Aug. 1, 1893.



WITNESSES:

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WAGON-JACK.

SPECIFICATION forming part of Letters Patent No. 502,397, dated August 1, 1893.

Application filed March 6, 1893. Serial No. 464,789. (No model.)

To all whom it may concern:

Be it known that I, CHARLES EMONS, a citizen of the United States, residing at West Troy, in the county of Albany and State of New York, have invented certain new and useful Improvements in Wagon-Jacks; 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.

This invention relates to an improvement in wagon jacks and consists in the construction and arrangement of parts hereinafter described and definitely pointed out in the claims.

The invention relates more particularly to that class of wagon jacks shown and described in my Patent No. 463,599, dated November 17, 1891.

The aim and purpose of my present invention are to simplify and strengthen the fulcrum bar, and in so forming the base that the objections heretofore existing in the use of a ring or concaved base, are overcome. These objects are attained by the construction illustrated in the accompanying drawings wherein like letters of reference indicate corresponding parts in the several views and in which—

Figure 1 is a perspective view. Fig. 2 is a longitudinal section through the base. Fig. 3 is a perspective view of the base. Fig. 4 is a detail cross section through the fulcrum showing the lever lowered, and Fig. 5 is a detail view of the strut or brace.

In the drawings A represents the tubular standard, B the head block C the carrying rod therefor which works in the standards and D the lever pivotally secured to the head block at *d*. These parts are represented in my aforesaid patent.

In the construction of jacks of this type it is necessary and essential to form a base, which will overcome all tilting tendency of the jack, and also form a sufficiently extended supporting surface so that when pressure is placed on the lever to raise the load there will be no sinking or settling of the base in the ground or supporting surface, as would be the case were the base constructed as represented in my former patent.

A further feature of importance is to secure

the smallest possible weight without impairing the requisite strength. To this end I form the base E of a flat oblong metal plate having an even flat under surface and of uniform thickness throughout. Around the upper outer edge of the base is formed a reinforcing flange *e* and centrally on the upper face of the base is formed a vertical fin F extending longitudinally, its center being formed into a socket F' into which the standard extends and is secured. At the opposite ends of the fin F are the curved reinforcing ribs F² which taper gradually toward and terminate at the corners of the plate at which point they are united with the flange *e*. These parts which constitute the base are formed in one integral piece preferably cast, making a very light and strong supporting base. The shape of the base prevents tilting. On the fin F at one side of the socket is formed an ear G', having a suitable aperture therein through which the pivot pin *h* passes which unites the side bars H' of the fulcrum rod H and connects the same to the base. The upper ends of the side bars H' are connected with the lever in the usual manner.

In the construction of the fulcrum rod shown in my former patent a serious springing or twisting tendency is experienced, where-as it is essential to have the rod rigid, light and strong. I therefore form the side bars of metal strip having flat inner faces and curved or convexed outer faces, bending or bowing the same outwardly to form a truss. At the center of the truss thus formed I place a strut or brace K, consisting of a plate having a central connecting shank *k* and two oblong eyes K' having apertures of substantially the shape of the contour of the side bars, but of a size to closely fit over the bars and be held firmly in place. The ends of the eyes project laterally beyond the connecting shank and form between a groove *k*³ into which the edge of the lever fits when the same is forced down. A lock is thereby formed which holds the lever from side play thereby bringing the pressure evenly on the pivot pin and greatly assists in giving additional strength and rigidity to the device when in use. By this means it will be seen that any tendency of the side bars to spring laterally or twist is wholly overcome.

I am aware that minor changes in the constructions herein shown and described can be made without departing from the principle of my invention.

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

1. In a lifting jack, the combination with a base, and standard, of a head block, carrying
10 a rod working in the standard, a lever pivoted on the head block, a fulcrum consisting of separate side bars pivotally connected to the lever and base, and a connecting brace having eyes in its opposite ends through which the side
15 bars pass, and a connecting web having a groove in its outer edge in which the lever engages, substantially as described.

2. In a lifting jack, the combination with a standard, of an integral base consisting of a
20 flat metal plate, of substantially uniform thickness, having on its upper face a socket, a longitudinal fin, oppositely inclined ribs ex-

tending from the fin to the edge, and a marginal flange, substantially as described.

3. In a lifting jack, the combination with a
25 base and hollow standard, of a head block carrying a rod working in the standard, a lever pivoted to the head block, a fulcrum consisting of two side bars oblong in cross-section, having their opposite ends pivotally secured
30 to the lever and base respectively, and their intermediate portions bowed outwardly in opposite directions, and an integral connecting brace located intermediate the ends of and between the side bars, said brace being formed
35 with eyes in its opposite ends through which the side bars pass and are held by frictional contact, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES EMONS.

Witnesses:

FRED W. COVERT,

ARTHUR B. STEWART.