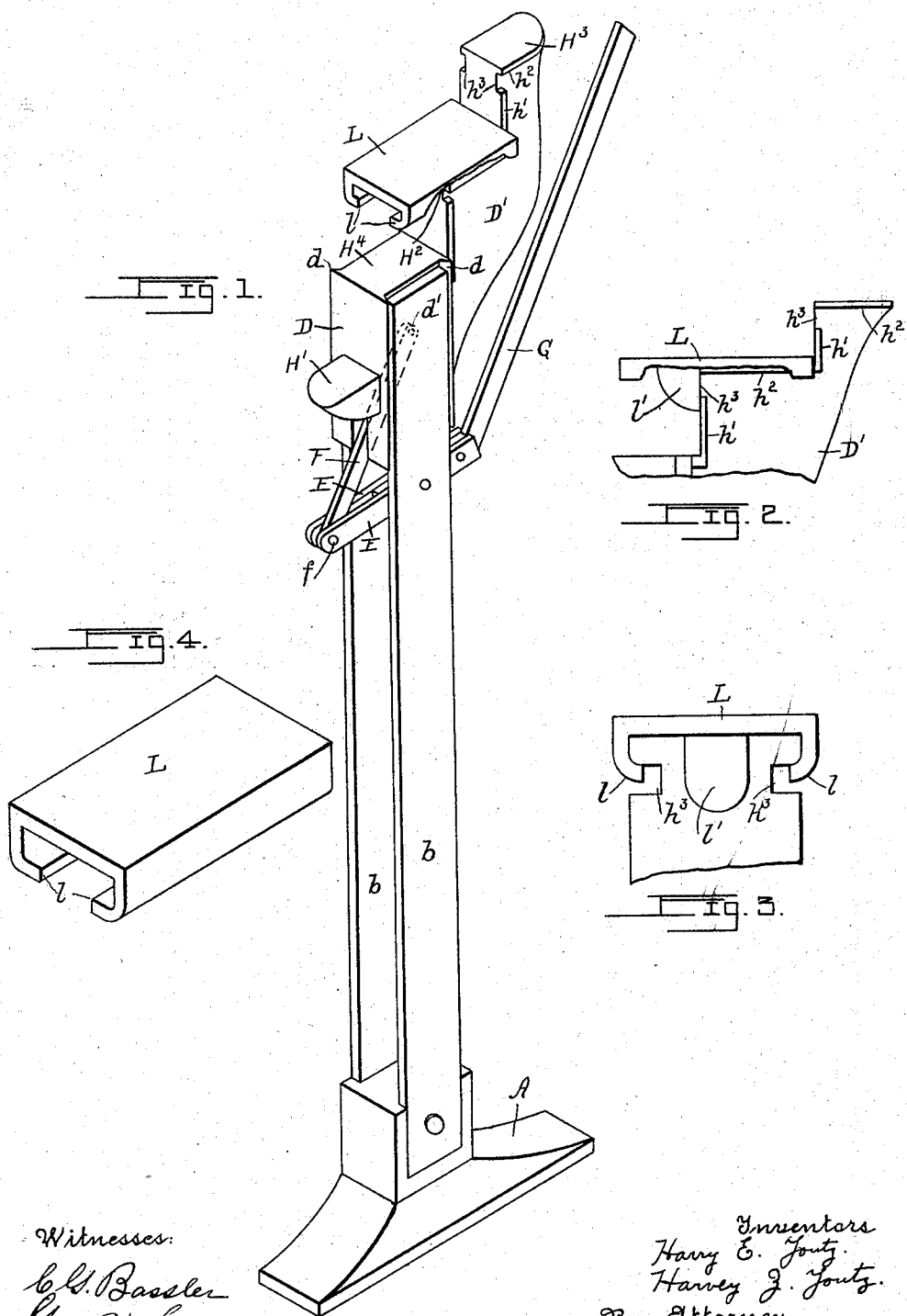


(No Model.)

H. E. & H. Z. YOUTZ.
LIFTING JACK.

No. 559,475.

Patented May 5, 1896.



Witnesses:

C. H. Bassler
Geo. A. Lane

Inventors
Harry E. Youtz.
Harvey Z. Youtz.

By Attorney
Wm. A. Gerhart

UNITED STATES PATENT OFFICE.

HARRY E. YOUTZ AND HARVEY Z. YOUTZ, OF MOUNTVILLE, PENNSYLVANIA.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 559,475, dated May 5, 1896.

Application filed February 16, 1895. Serial No. 538,654. (No model.)

To all whom it may concern:

Be it known that we, HARRY E. YOUTZ and HARVEY Z. YOUTZ, citizens of the United States, residing at Mountville, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Lifting-Jacks, of which the following is a specification.

This invention relates to improvements in that class of lifting-jacks employed for raising the axles of vehicles; and the object of the invention is to produce a strong jack, cheap and simple in construction, and which is adapted to take under and give a full bearing for axles of different widths.

The invention consists in the construction and combination of the various parts, as hereinafter fully described, and then pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a lifting-jack embodying our invention; Fig. 2, a side view of the upper portion of the head and the bracket thereof, the cap being in place on one of the bearings; Fig. 3, an end view of one of the bearings having a cap thereon, and Fig. 4 a perspective view of the cap.

Similar letters indicate like parts throughout the several views.

Referring to the details of the drawings, A indicates the base of a standard; B, the standard, comprising two posts *b*, having their lower ends let into the sides of base A; D, a vertically-movable head located between posts *b*, and *d* flanges on opposite vertical sides of head D, constructed to embrace the edges of posts *b*. An actuating-lever is pivoted between posts *b* below head D and has its short arm formed of two plates E, between the outer ends of which is hinged the end of a rigid link F, as shown at *f*, the other end of said link being pivoted in the upper end of a slot in head D, as illustrated at *d'*. The inner ends of plate E extend through the standard and embrace the lower end of the other arm G of said lever. From its point of juncture with plates E arm G is bent upward, forming the handle of the lever.

The top H^4 of the head D forms a bearing or shoulder adapted to take under an axle, and on the front of said head, below the top,

is formed a shoulder H' that also forms a bearing. On the back of head D is an upright bracket D' , provided with the shoulders H^2 and H^3 , forming bearings by means of which the jack is allowed a wider range of adjustment beneath the axles of vehicles.

The jack as just described is constructed for use with iron or other narrow axles; but we use an attachment by which the bearings can be widened to afford proper support for the raising of the broad axles of heavy vehicles. Both the vertical and horizontal faces of the shoulders forming the bearing-steps are reinforced, respectively, by flanges or beads h' and h^2 . In jacks adapted to have this attachment connected therewith the upper portions of vertical flanges h' are cut away, as shown at h^3 , Figs. 1, 2, and 3.

L represents a bearing-cap constructed to take over the bearing-shoulders of the jack. This cap may be of any desired length, though generally a length twice that of the bearing-shoulders will be found to meet requirements. On the longitudinal edges of the bearing-plate of cap L are curved or inwardly-turned lips *l*, constructed to take around and under flanges h^2 . When the cap L is to be used, it is slipped over one of the bearing-shoulders, lips *l* passing through openings h^3 in flanges h' , until the inner end of said cap rests against the rise of the shoulder above it, as shown in Fig. 2. To relieve the strain on the flanges and lips, a lug *l'* is formed on the bottom of the bearing-plate of cap L in position to take up against the rise of the shoulder on which the cap rests when the inner end of said cap is flush with the inner end of the step on which it rests. When applied to the upper bearing-step, this lug prevents the cap from being pushed too far over the same. The top H^4 of the head and of the shoulder H' may also be provided with flanges h^2 , the upper ends of flanges *d* of said head being cut away.

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

1. The combination, in a lifting-jack, of a bearing-shoulder having flanges on the sides parallel with the bearing-face thereof, a removable cap of greater length than said bearing-face, and lips on the cap adapted to en-

gage the under sides of said flanges, substantially as and for the purpose specified.

2. The combination, in a lifting-jack, of a bearing-shoulder having flanges on the sides
5 parallel with the bearing-face thereof, a removable cap, lips on the cap adapted to engage said flanges, and a lug on the bottom of the cap constructed to engage the vertical

face of said bearing-shoulder, substantially as and for the purpose specified.

HARRY E. YOUTZ.
HARVEY Z. YOUTZ.

Witnesses:

JACOB HALBACH,
WM. R. GERHART.