

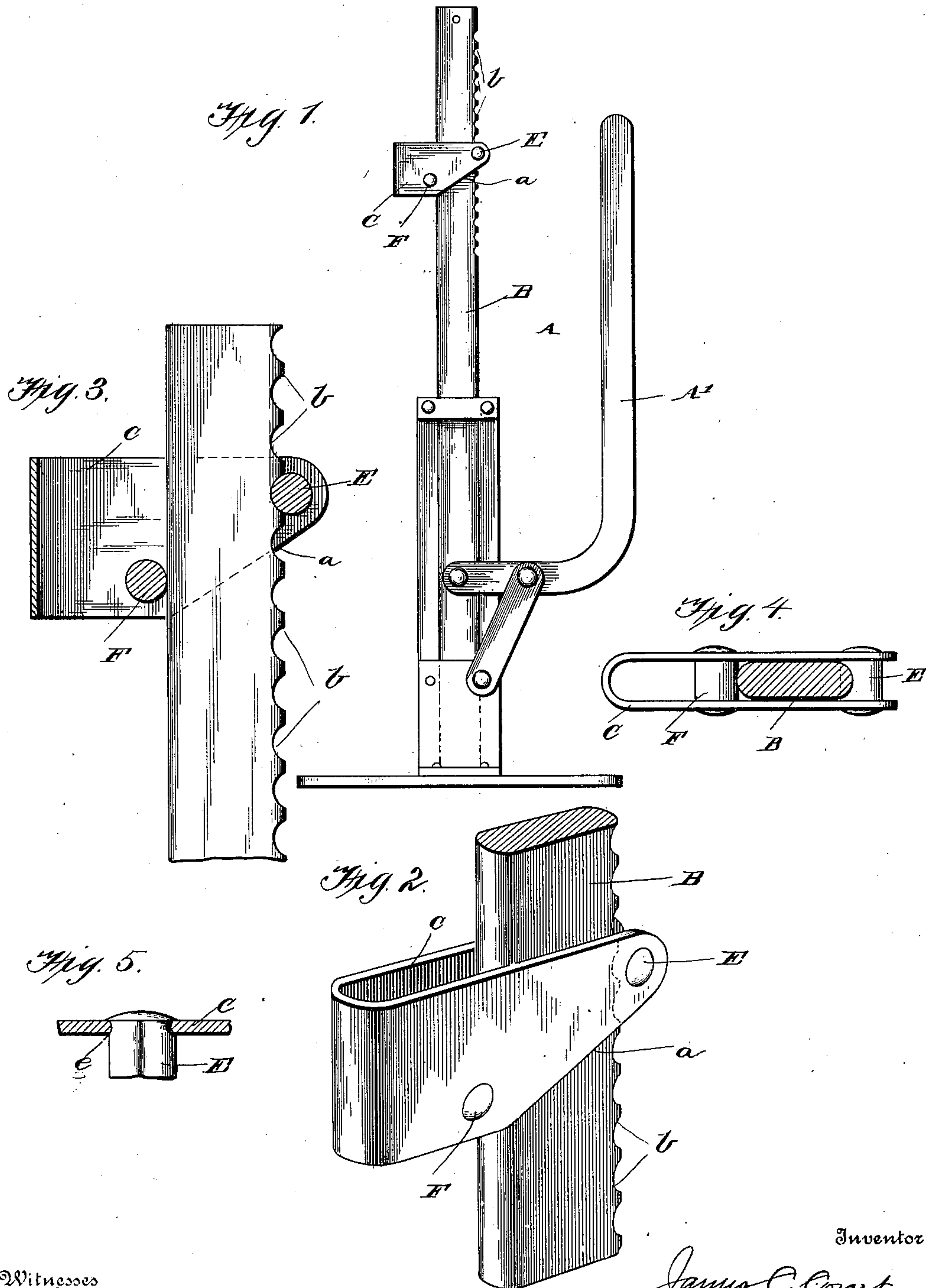
No. 652,836.

Patented July 3, 1900.

J. C. COVERT.
LIFTING JACK.

(Application filed Dec. 19, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES C. COVERT, OF WATERVLIET, NEW YORK, ASSIGNOR TO THE COVERT MANUFACTURING COMPANY, OF SAME PLACE.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 652,836, dated July 3, 1900.

Application filed December 19, 1899. Serial No. 740,848. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. COVERT, a citizen of the United States, residing at Watervliet, in the county of Albany and State of New York, have invented certain new and useful Improvements in Lifting-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 lifting-jacks, and it is embodied in the construction and arrangement hereinafter described, and defined in the claim.

The invention relates more particularly to an improvement in the lifting-bar type of jack and especially in that style of jack shown in Letters Patent No. 615,433, granted to myself on December 6, 1898. In my patented form a bar is shown which has a series of notches or grooves in its rear edge, and a cast-metal bracket is shown, through which the bar passes, the bracket having a rib for engaging the notches. While the cast form of bracket is satisfactory in many respects, yet it is objectionable owing to its liability to break and to the expense of production. In Letters Patent No. 615,809, granted to myself on December 13, 1898, a construction of bracket is shown, which consists of a strip of metal bent into shape and perforated to receive the bar. This bent-metal-strip type of bracket overcame some of the objections of the cast type; but after placing large quantities on the market and subjecting the same to the extensive practical tests of general use, as well as to special tests, it was demonstrated that while the bent-metal structure was very desirable, yet inasmuch as it was necessary to perforate the metal strip to allow for the passage of the lifting-bar it was greatly weakened at the point of perforation and that the metal at that point will bend under the load, thereby destroying the usefulness of the bracket.

My present invention relates to the peculiar construction of a sheet-metal bracket; and it is designed to overcome the objections exhibited in the former styles, while embodying the important and advantageous features of both.

In the drawings is shown a form of the invention which has by actual and severe tests

proven to be eminently satisfactory; but slight changes and modifications can be made without departing from the invention.

Figure 1 is a view of a jack with the improvement. Fig. 2 is a detail perspective view, enlarged, of the bracket and a portion of the lifting-bar. Fig. 3 is a longitudinal section showing the bar in elevation. Fig. 4 is a sectional view; and Fig. 5 is an enlarged detail section through one of the connecting-bars, showing portions of the plates.

A designates a lever and lifting-bar jack having the lever A' and lifting-bar B. This bar B has a series of curved grooves *b* in its rear edge and has conveniently a straight forward edge and flat sides.

C designates the bracket, which is formed of sheet metal bent into substantially U shape, its outer or supporting portion being united and of substantially uniform vertical width, while its rear ends on opposite sides are cut away at an incline on their under edges, as at *a*. The rear ends of the two parallel arms of the bracket are united by a cylindrical cross-bar E, which passes through an opening in the plates. Located near the lower edge of the plates, slightly beyond the central plane thereof, is a connecting-bar F. These two bars are secured by having their ends and that portion *e* adjacent the inner faces of the plates bulged or upset and riveted, so that they completely fill the holes through which they pass and hold the plates in their relative positions.

In the construction shown the united or closed outer or rest portion of the U-shaped bracket serves to prevent the plates spreading at that point.

In practice when the step or bracket is adjusted to the bar the cross or connecting bar E engages in one of the notches of the lifting-bar, while the bar F acts as a stop, resting against the forward edge of the lifting-bar. The beveling of the rear edges of the side members of the bracket lessens the weight at that point, and consequently the weight of the forward portion is sufficient to at all times tend to keep the cross-bar E in its groove, and only by considerable tilting rearward can the bar be released.

By the construction above described the parts are so fashioned and arranged that the

pressure is properly distributed and breakage avoided.

I am aware that single plate-brackets having lateral pins working in conjunction with
5 two uprights have been suggested heretofore; but in such case the bracket is necessarily weak and the pins being supported at one point soon break.

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

In a lifting-jack, the combination with a lifting-bar having notches in its rear edge, of
15 a bracket formed of sheet metal bent into substantially U shape having its connected por-

tion between the sides presented outward and its edge upward, its sides embracing the bar, a cross-bar connecting the upper portion of the rear ends of the sides and arranged to engage the notches, and a cross-bar connect- 20 ing the lower portions of the sides in advance of and below the other cross-bar, and in front of the lifting-bar, substantially as described.

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

JAMES C. COVERT.

Witnesses:

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