

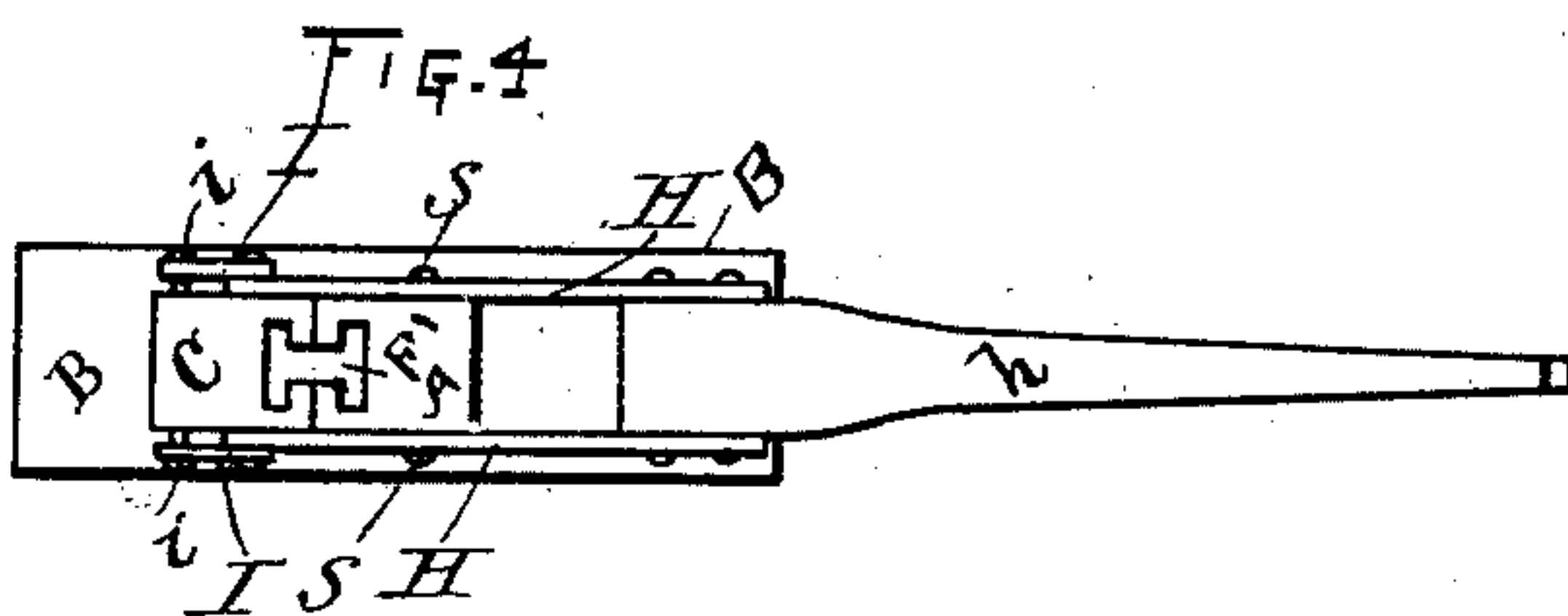
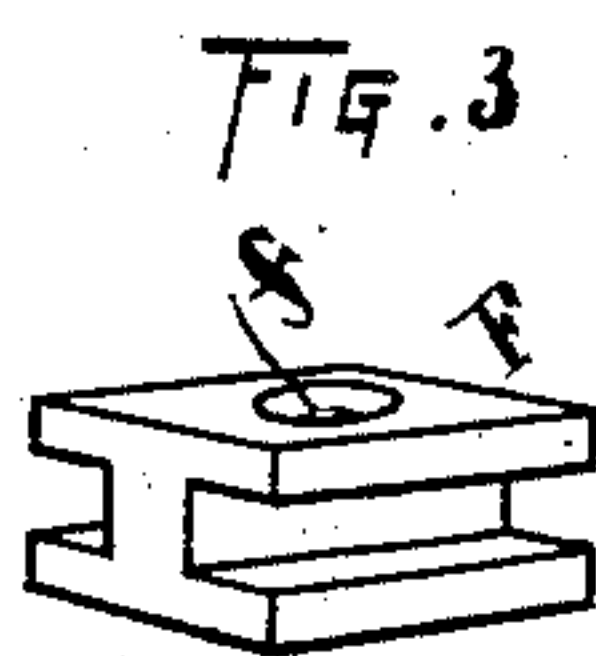
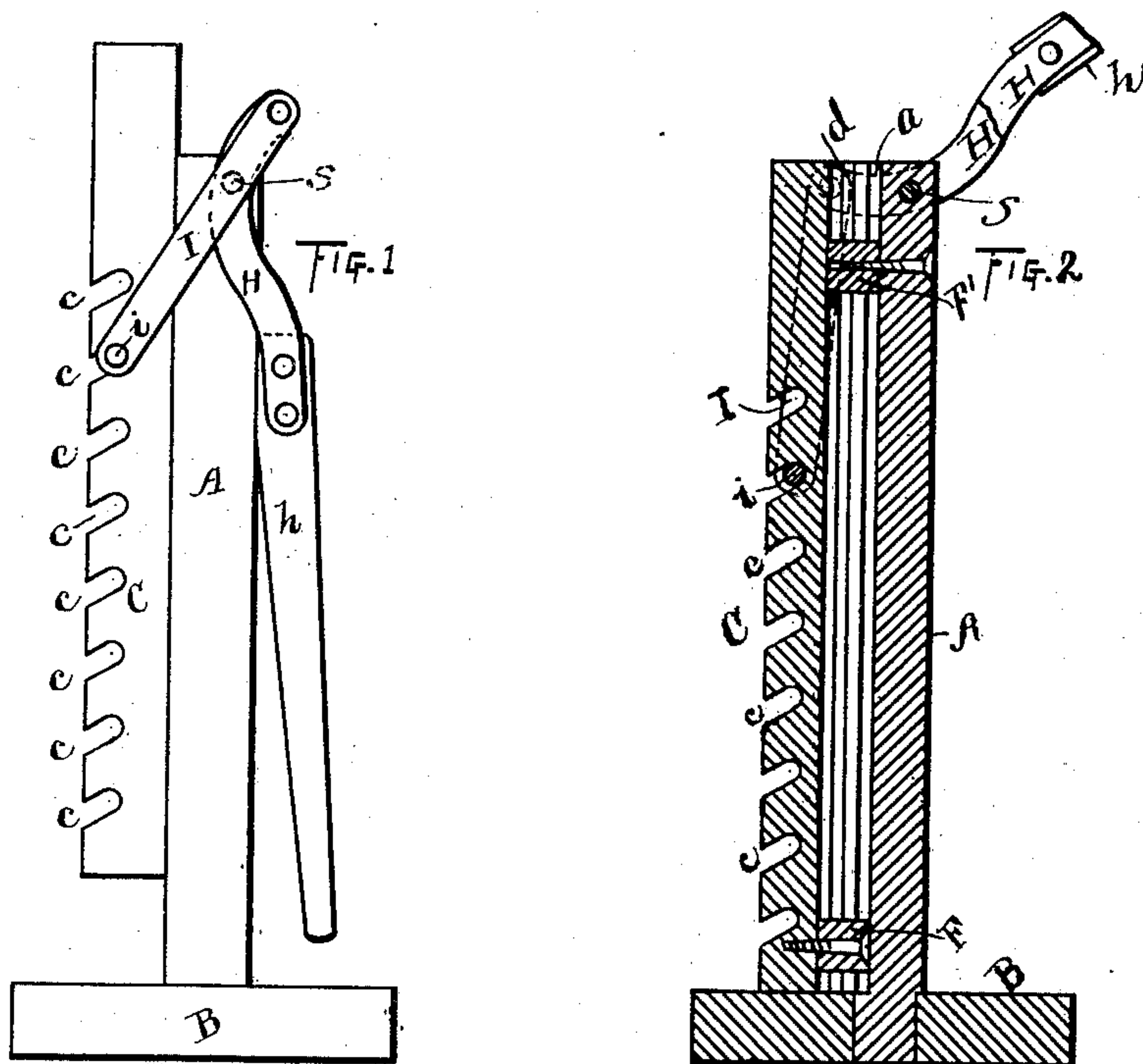
(No Model.)

G. S. RICKARD.

LIFTING JACK.

No. 375,769.

Patented Jan. 3, 1888.



WITNESSES

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GEORGE S. RICKARD, OF COLUMBUS, OHIO.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 375,769, dated January 3, 1888.

Application filed September 7, 1887. Serial No. 249,023. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. RICKARD, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Lifting-Jacks, of which the following is a specification.

My invention relates to devices for lifting heavy objects, and has particular relation to that class known as "vehicle-lifting jacks."

The objects of my invention are to provide a neat, simple, and effective lifting-jack by means of which heavy bodies may be readily and easily elevated to different heights, and to so construct the same as to prevent the binding of the elevating-arm against its standard when the former is being raised. These objects I attain in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the lifting-jack. Fig. 2 is a vertical section taken through the center of the same. Fig. 3 is a perspective view of one of the guide-blocks, and Fig. 4 is a plan view of the device.

Similar letters refer to similar parts throughout the several views.

A represents a vertical standard provided with a suitable base, B, with which it is firmly connected in any well-known manner.

C represents a vertical lifting-bar, having its front side provided with a series of upwardly-inclined notches, *c*, and having cut inwardly from its rear side a T-shaped groove, *d*, said groove extending the full length of the arm. Formed in the front surface of the standard A is a groove, *a*, corresponding with the groove *d*.

F represents a metallic guide-block having two opposite sides grooved, as shown, in the form of an I-beam, and having a screw-hole, *f*, formed through its center at right angles with said grooves. This block F is secured to the bar C, as shown, by inserting one of its halves into the similarly-shaped groove *d* until at a short distance from the bottom of the arm, at which point it is securely fixed by means of a screw made to pass through the screw-hole *f* and into the arm. The standard and arm may then be connected by raising the latter above the former and inserting the projecting half of the block F into the upper

end of the groove *a* and allowing the arm to slide down until it rests on the base B. A block, F', corresponding with the block F, is then inserted within the H-shaped opening formed by the joining of the grooved parts of the standard and arm until at a short distance below the upper end of the standard, where it is fixed by means of a screw made to pass through the standard from the rear side into the screw-hole of the block F'. By this construction it will be seen that when the lifting-bar C is raised or lowered, as hereinafter described, the block F will travel in the groove *a*, and the groove *d* form a track for the block F'.

Pivoted by means of a pivot-pin, *s*, on opposite sides of the upper portion of the standard are two metallic lever-arms, H, each of which in front of its pivot-point is curved slightly upwardly, and has its rear portion curved rearwardly and downwardly, as shown. The rear ends of the lever-arms H are secured in any suitable manner to one end of a lever-handle, *h*. To the upper or front ends of the arms H are pivoted, respectively, the corresponding ends of two parallel arms, I, the latter being connected at their outer ends by means of a transverse pin, *i*.

In order to elevate an object by my device it is necessary to first place it so that the upper end of the elevating-bar C is beneath the object to be raised. Said arm may then be elevated by raising the lever-handle until the cross-pin *i* may be inserted within the desired notch *c*, and then forcing the lever down until in a position parallel, or nearly so, with the standard, as shown in Fig. 1 of the drawings. The lever having been brought to this position, it will be seen that the point of connection between the lever-arms and the arms I is in rear of the point of connection between the said lever-arms and the standard, thus preventing the vertical strain caused by the weight of the body being elevated from forcing the lever-handle up again.

I am aware that it is common to lock connected parts by throwing the strain back of the lever-pivot point, and that the parts of lifting-jacks have been fitted together by means of grooves and tongues; but my invention differs from these in securing a direct vertical

leverage through the lever and arms I, and in the use of the grooved guide-blocks F F', by means of which an easy and even bearing is formed between the standard and elevating-
5 arm.

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

In a lifting-jack, the combination of the
10 grooved standard A, the guide block F', lever-

arms H, having handle h, said arms being pivoted to the standard, arms I, having cross-pin i, the grooved and notched elevating-bar C, and the block F, substantially as and for the purpose specified.

GEORGE S. RICKARD.

In presence of--

JOHN M. TIBBETTS,
G. W. DEVERE.