

(No Model.)

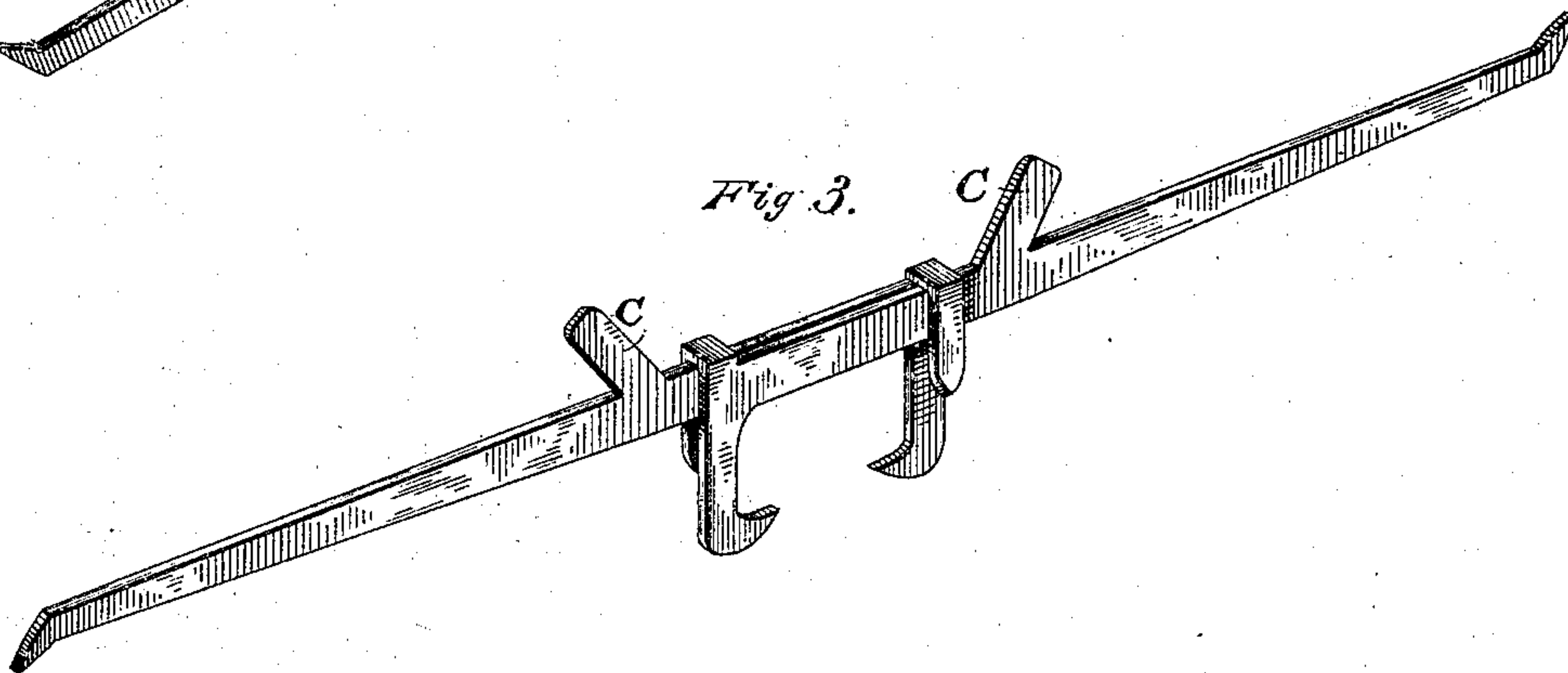
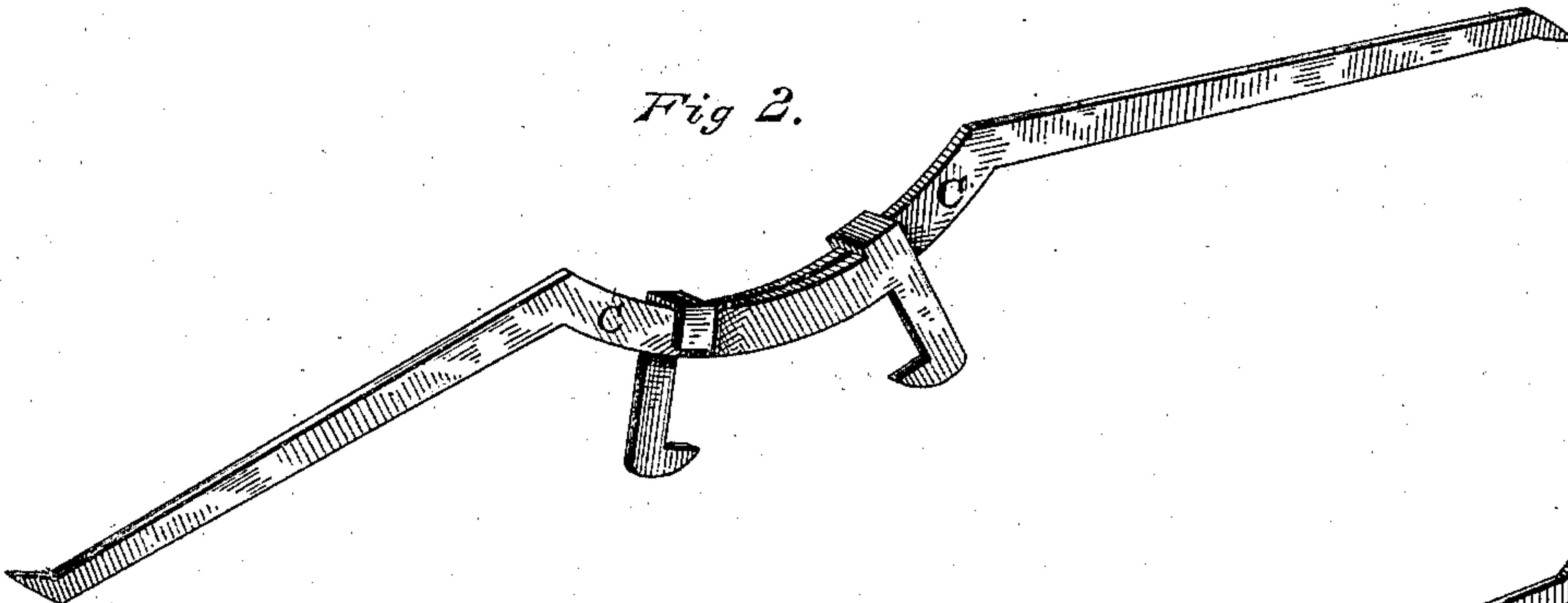
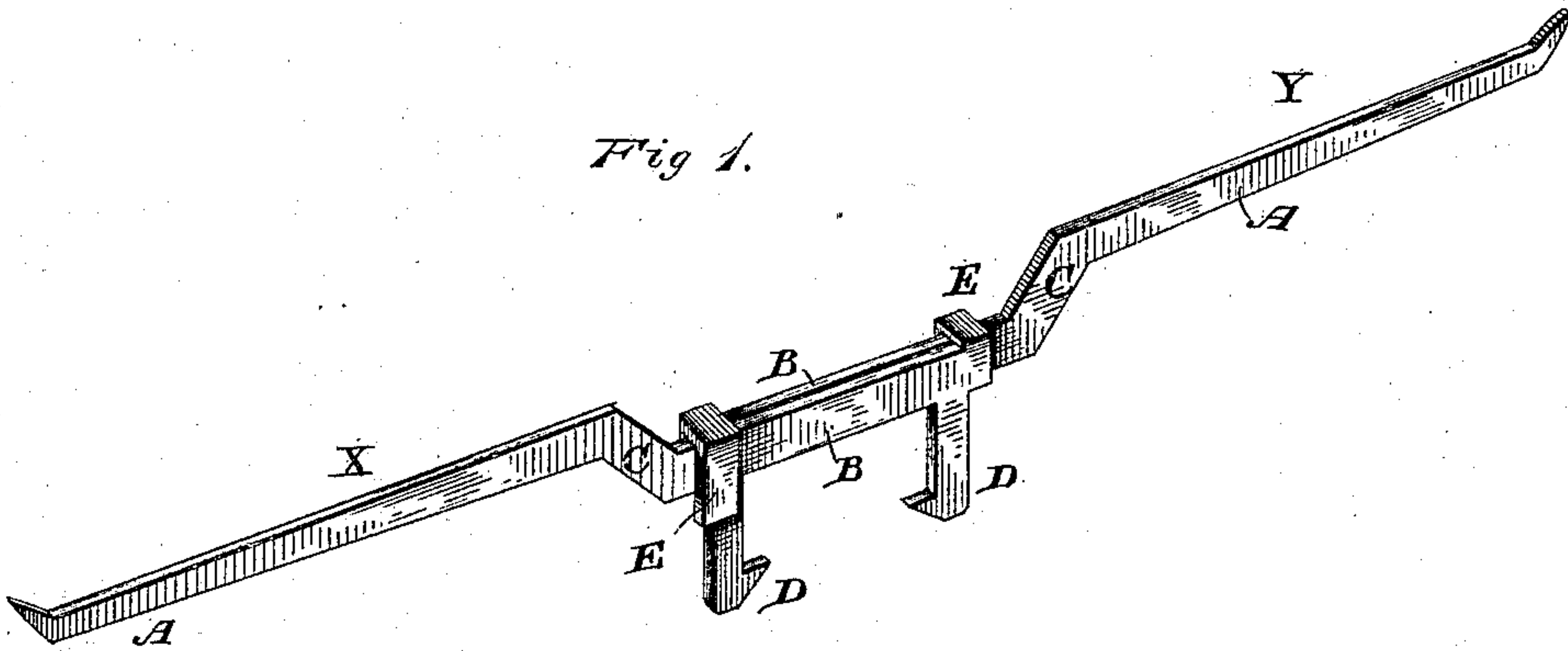
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S. W. HUDSON.

LIFTING TONGS.

No. 270,069.

Patented Jan. 2, 1883.



WITNESSES

Wm A. Skink
Harry King

INVENTOR

Samuel W. Hudson

By his Attorneys,

Baldwin, Hopkins & Peck

(No Model.)

2 Sheets—Sheet 2.

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Fig 4.

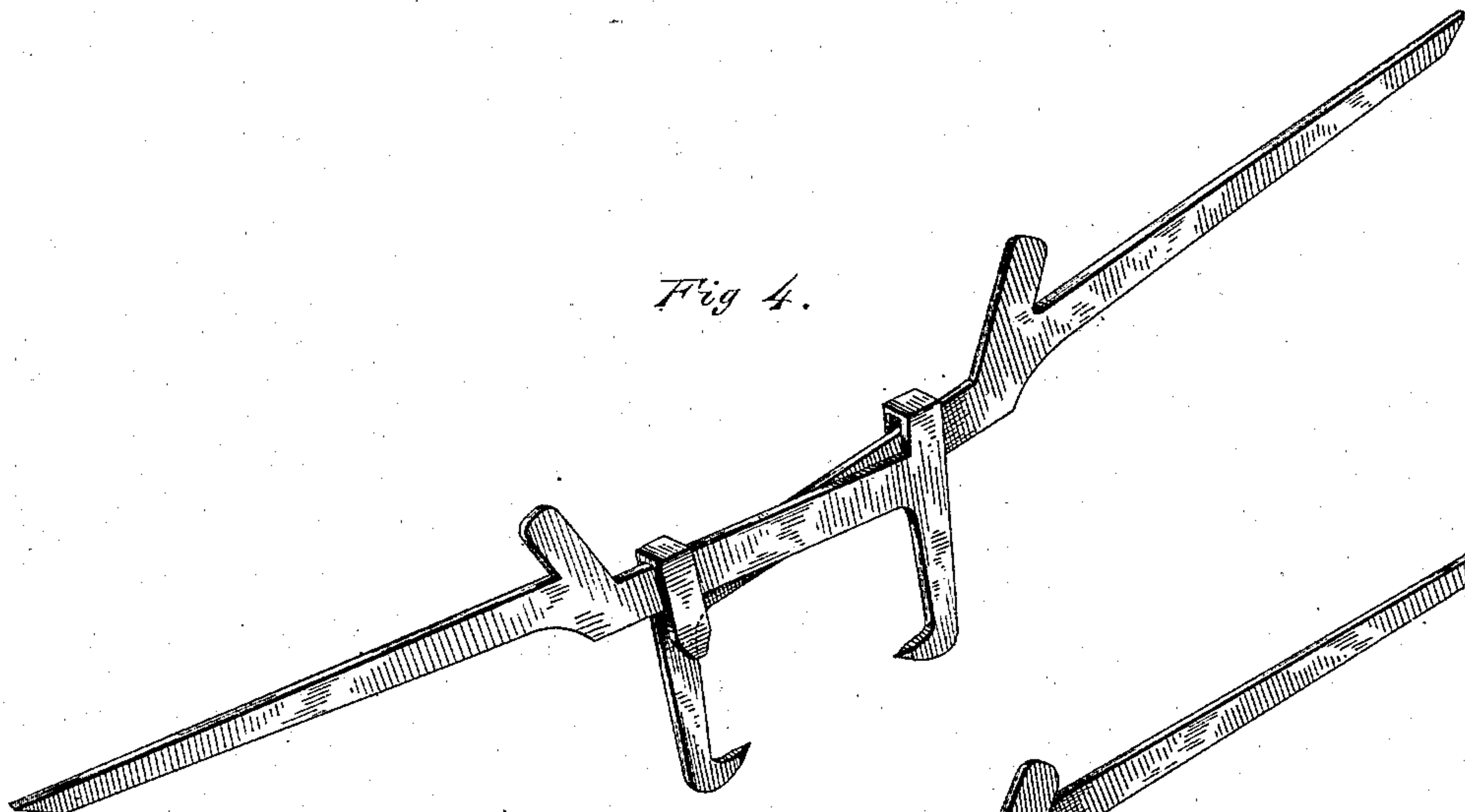


Fig 5.

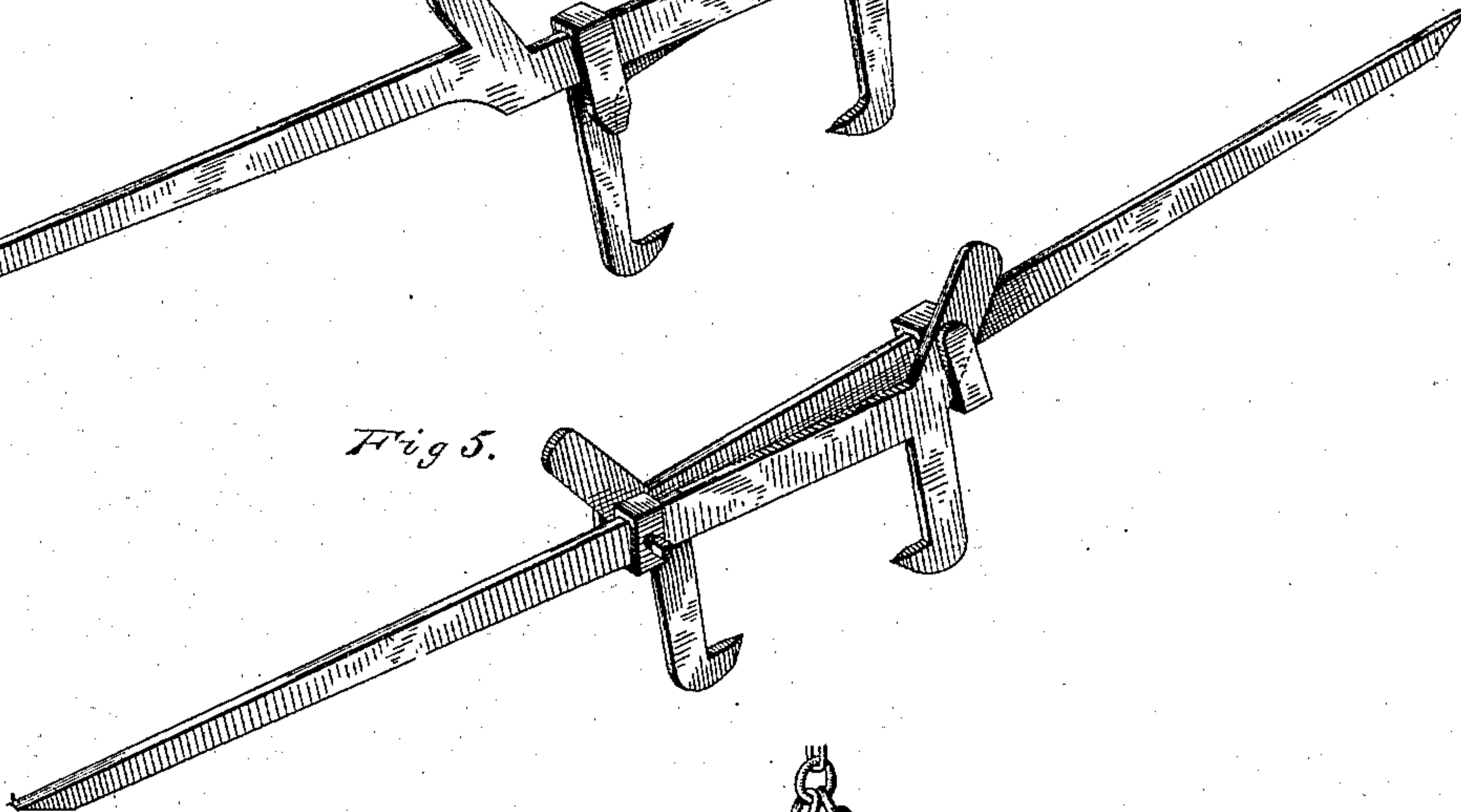
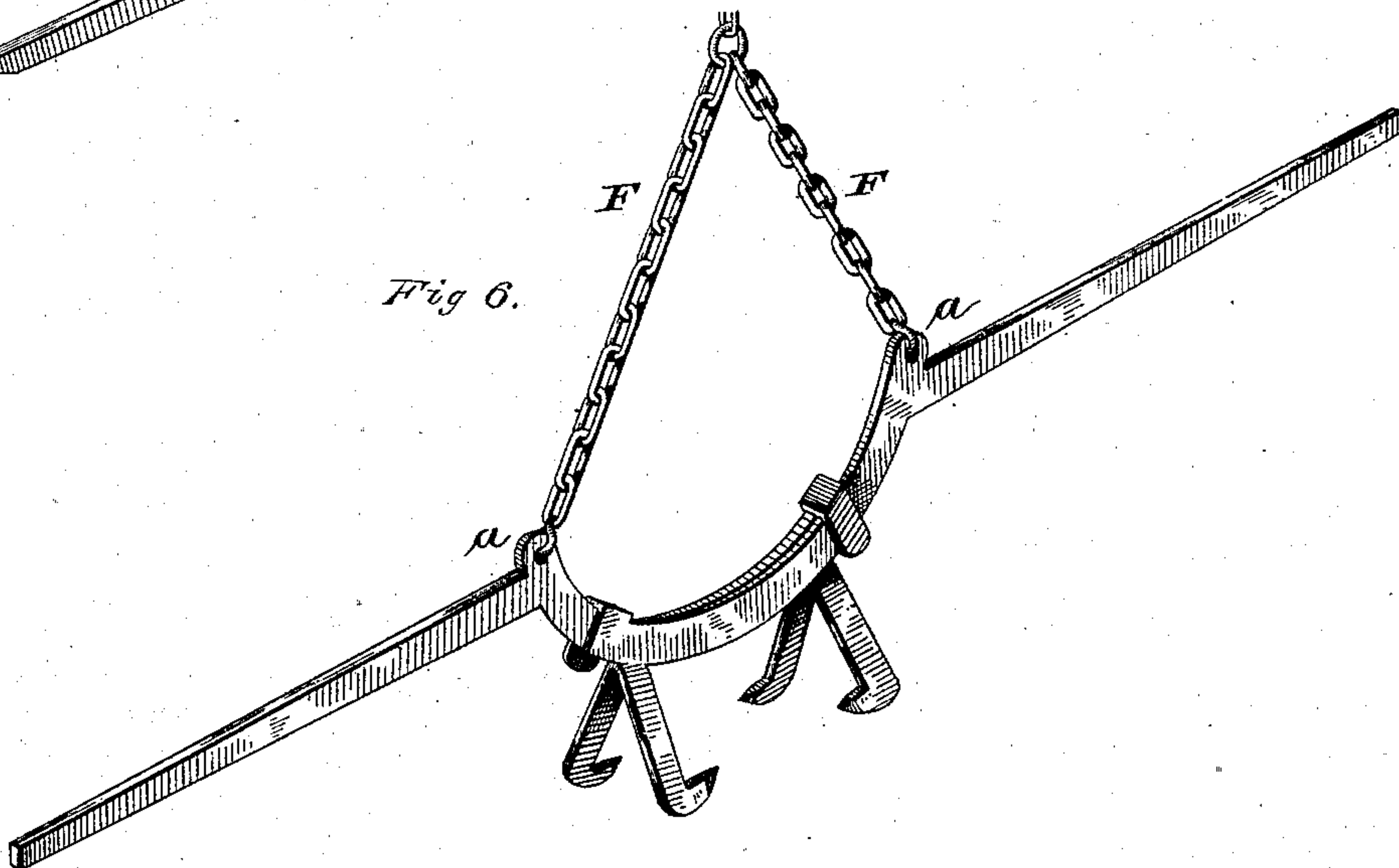


Fig 6.



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UNITED STATES PATENT OFFICE.

SAMUEL W. HUDSON, OF HUDSONDALE, PENNSYLVANIA.

LIFTING-TONGS.

SPECIFICATION forming part of Letters Patent No. 270,069, dated January 2, 1883.

Application filed November 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL W. HUDSON, of Hudsondale, in the county of Carbon and State of Pennsylvania, have invented certain new and useful Improvements in Lifting-Tongs, of which the following is a specification.

My invention is designed more especially to be used in raising and otherwise moving railroad-ties, and will herein be described as for that purpose. It is, however, equally applicable to handling various kinds of timber and other bulky and cumbersome articles.

As is well known, it often becomes necessary to ballast railways by filling in under the ties, and thus raise them from their sunken to their normal position. To do this it is necessary to first lift the ties, and then fill in with ballasting material. Heretofore this lifting has generally been done by hand or with crow-bars. The object of my invention is to facilitate this operation by providing lifting-tongs that shall be simple, reliable, and readily adjustable to accommodate ties of different sizes.

In the accompanying drawings, the several figures illustrate various forms and modifications of my invention, all, however, constructed on the same general principle.

In Figure 1 the tongs are shown as consisting of two similar parts, X and Y, each comprising a handle, A, slide-rod B, short inclined connecting-piece C, sharp-pointed grapple D, and a turned-over lag or hooked finger, E. The parts X and Y may be made entirely of metal in one piece or of pieces welded together; or some of the parts—the handles, for instance—may be of hard wood. The outer ends of the handles may be sharpened, as shown, if desired, so as to be readily used as crow-bars. The tongs are put together by slipping the hooked finger or loop E of each part over the corresponding slide-rod of the other part, the hooks facing in opposite directions. To open the tongs the handles are pushed inward, so that the rods B slide under the loops, the loops and the grapples at the same time diverging. When the loops reach the incline bars, if the pushing is continued, they will turn slightly, so as to cause the grapples to diverge after the manner of ordinary tongs. When thus opened the tongs may be placed over the tie, so that

the bars B and grapples D will straddle it. Then by quickly drawing the handles apart the grapples will move toward each other and take a firm hold on the tie. This hold may be insured by giving the backs of the grapples one or two sharp blows with a hammer. The tie may now be raised and the ballasting effected.

Fig. 2 shows a slight modification, in which the short inclined bars are dispensed with and the sliding bars curved, as at C, so that the grapples are constantly inclined.

In Fig. 3 the handles and the slide-bars are shown as in the same right line, and upwardly-inclined lugs C are substituted for the inclined connecting-bars.

In Fig. 4 both inclined connecting-bars and lugs are shown, and the hooks or loops as somewhat deeper or longer, so that the handles are inclined upward and the grapples inward.

In Fig. 5 the handles and the slide-bars are in the same right line, the lugs are on the far or grapple ends of the handles, and the loops or hooks are attached to the handles at any suitable point. Each of the loops is movable on the handle, and adjustable by a set-screw along the entire length of the handle.

Fig. 6 shows an arrangement in which the slide-bars are curved and the grapples are each double, the loops are on the ends of the slide-bars, outside of the grapples, and a supporting or lifting chain, F, secured to a traveling car or suitable frame of some kind, is attached to lugs *a a* on the inner ends of the handles. The apparatus may be still further modified; but the forms shown are those preferred.

I claim as my invention—

1. The combination of the two like parts, each consisting of a handle, a slide-bar, and a grapple-jaw, with devices for holding the two parts together and permitting them to move or slide freely on each other, substantially as and for the purpose set forth.

2. The combination of the two like parts, each having a handle, a slide-bar, an inclined portion, a grapple-jaw, and a hook or loop which rides on the other part and permits the two to slide freely on each other, for the purpose set forth.

3. The combination, substantially as set forth, of the two like parts, each consisting of

a handle, a slide-bar, a grapple-jaw, a loop or hook, and the supporting or lifting chain F.

4. The lifting-tongs, substantially such as herein described, consisting of two like parts
5 having a lifting-handle and a grapple-jaw, combined with a device for holding the two together, and yet permitting them freely to slide endwise past each other to adjust the jaws to the size of the object to be lifted.

In testimony whereof I have hereunto subscribed my name.

SAMUEL W. HUDSON.

Witnesses:

L. H. BARBER,
E. F. K. BELFORD.