

(No Model.)

J. POWERS.  
HOD ELEVATOR.

No. 253,943.

Patented Feb. 21, 1882.

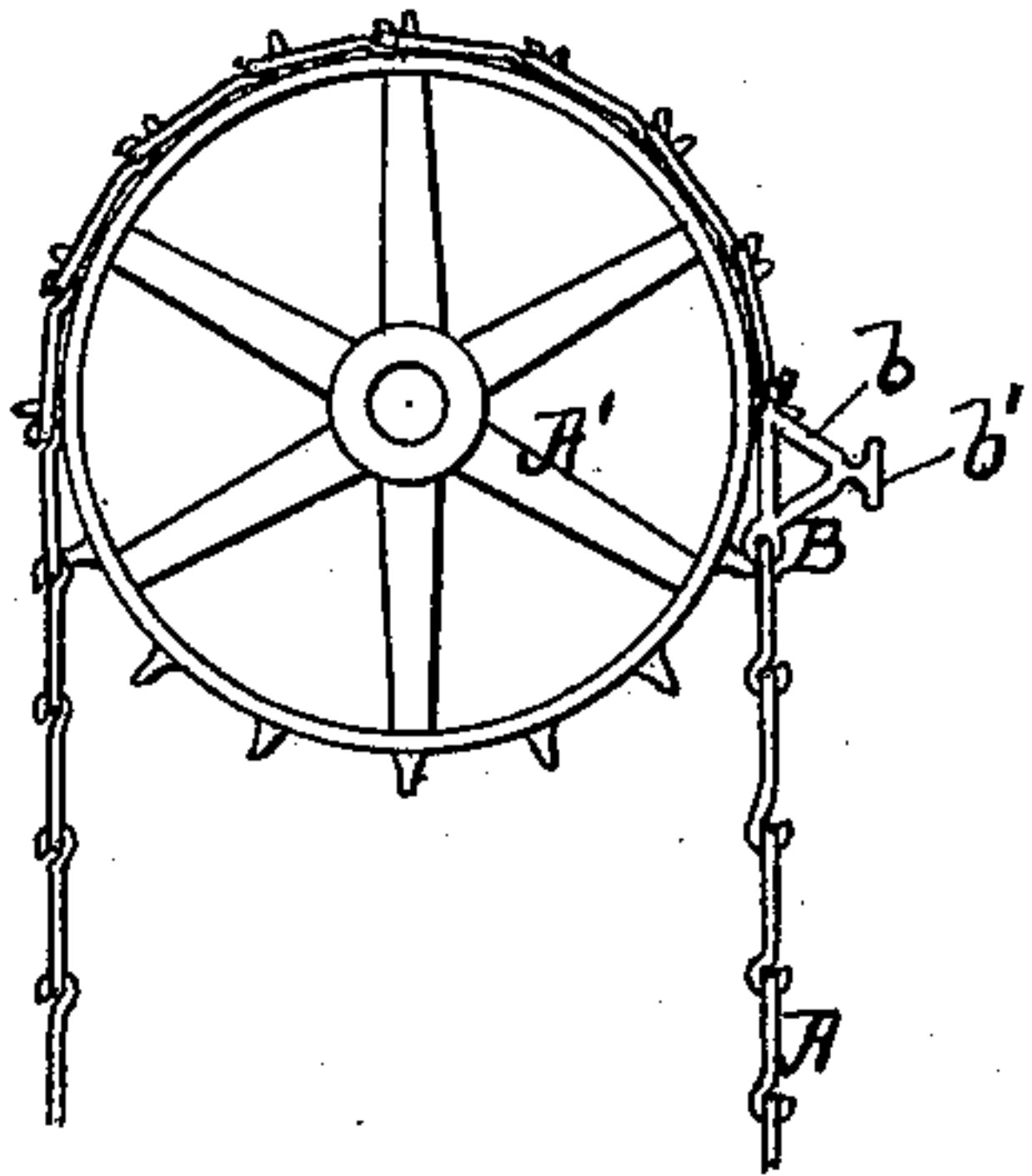


Fig. 1.

Fig. 2.

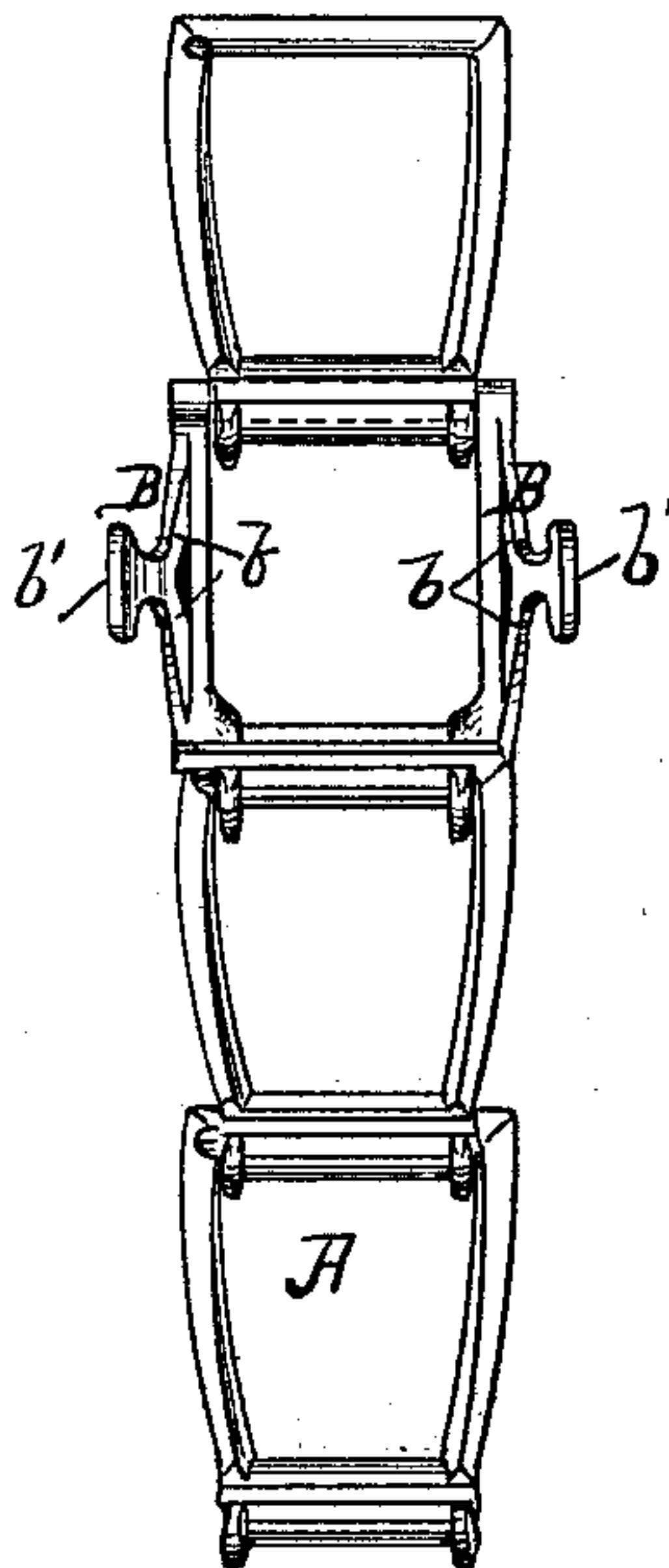


Fig. 3.

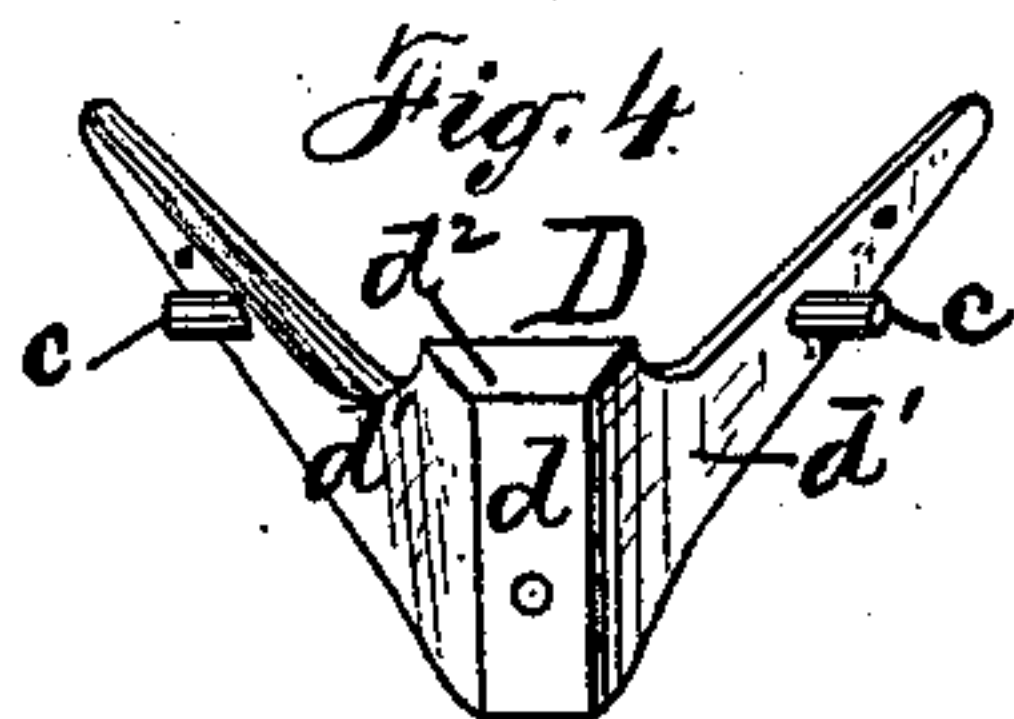
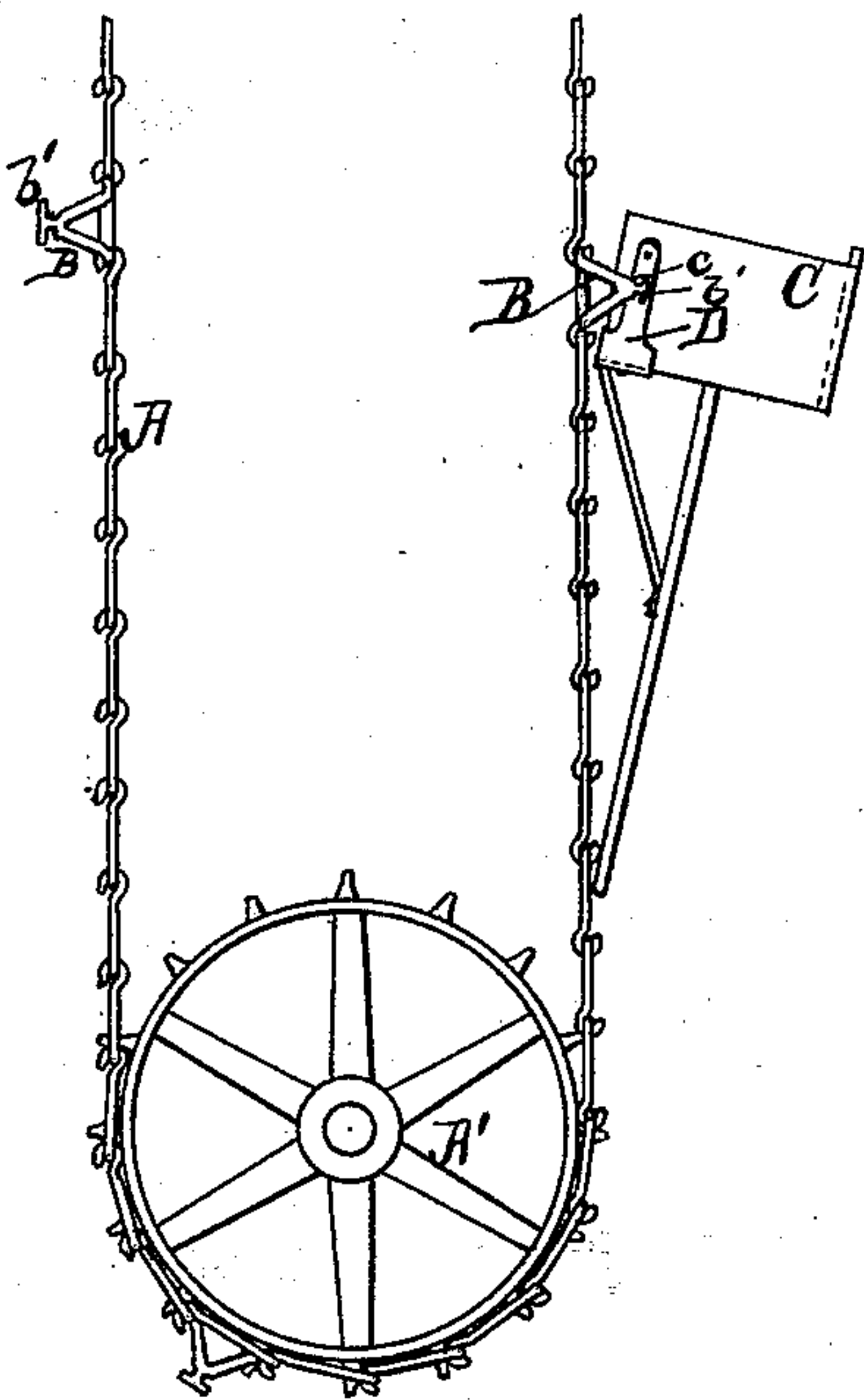
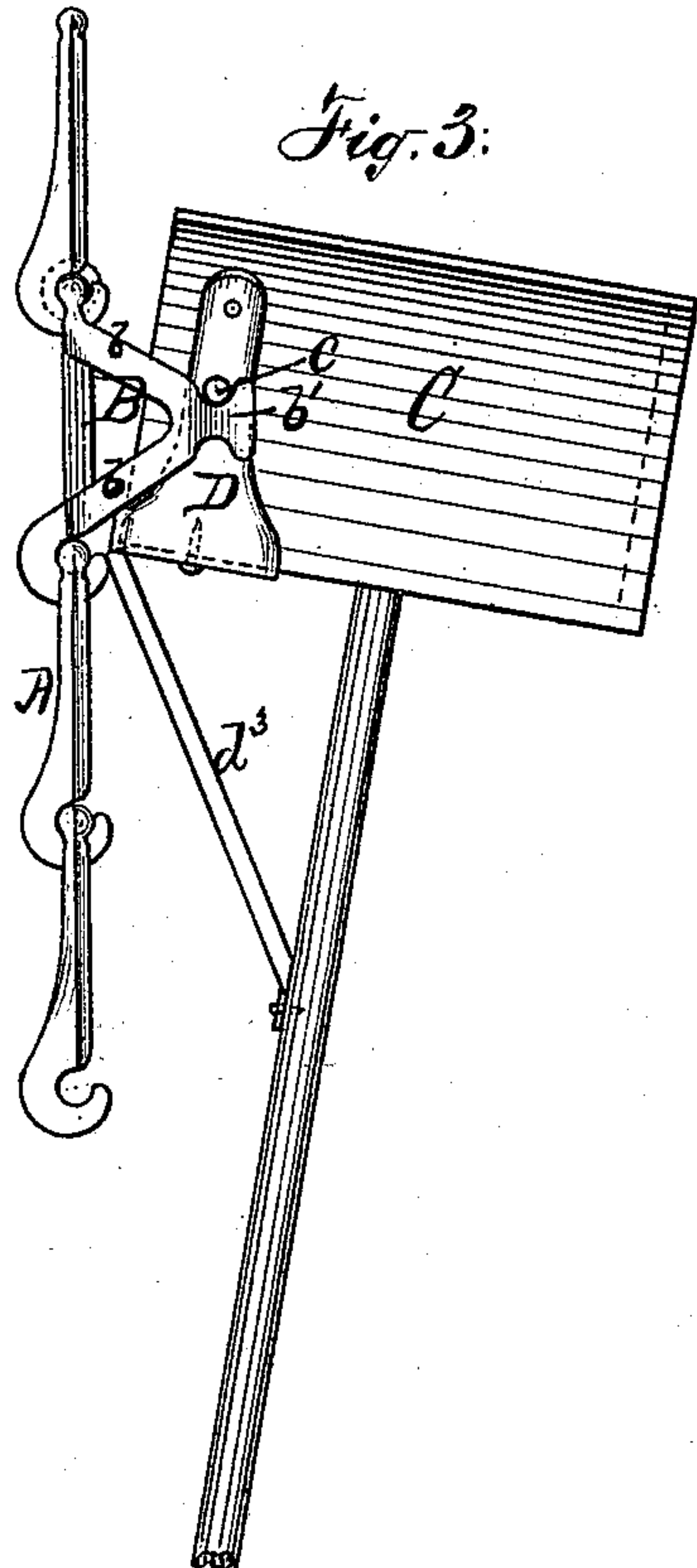
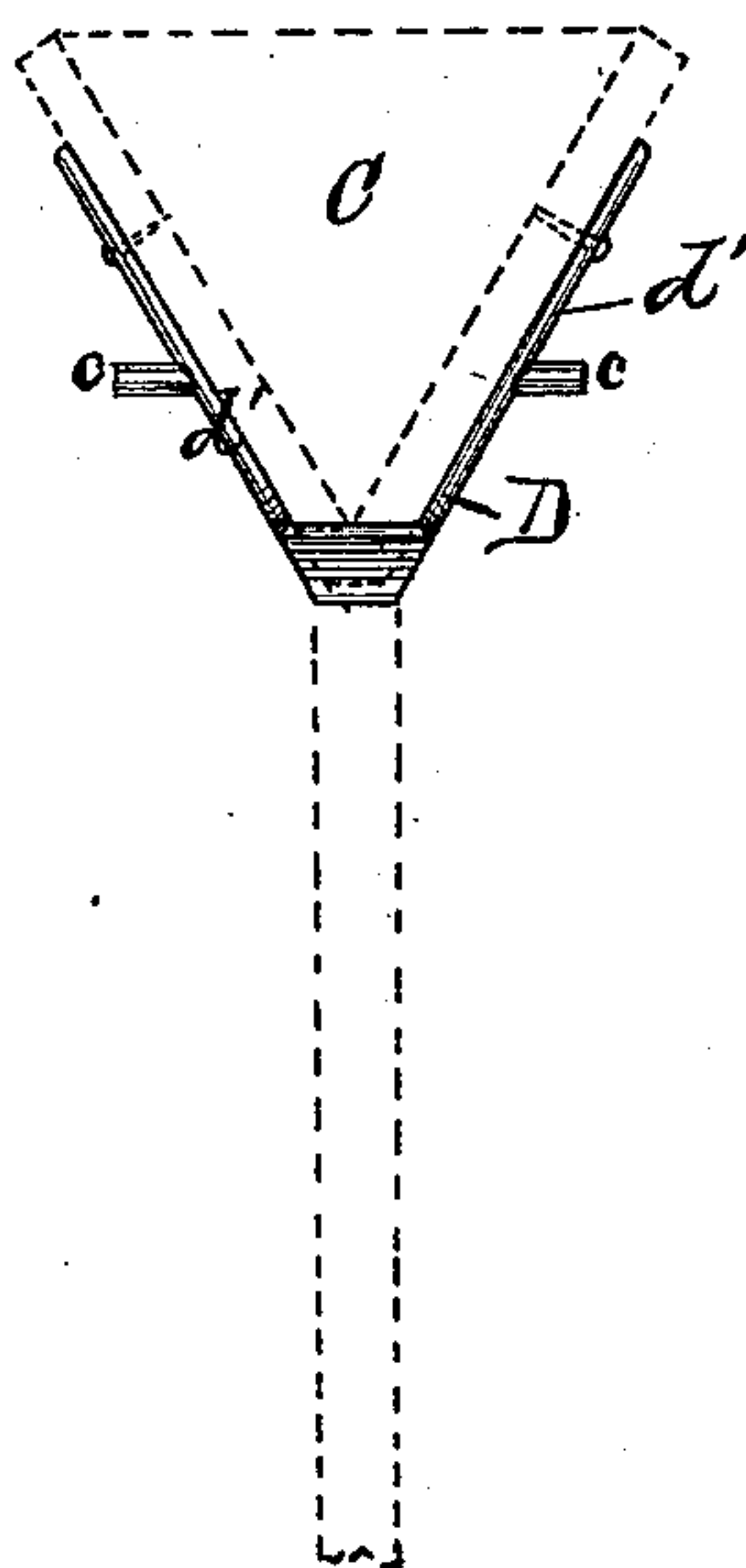


Fig. 5.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## HOD-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 253,943, dated February 21, 1882.

Application filed January 11, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JESSE POWERS, of Chicago, Cook county, State of Illinois, have invented an Improvement in Hod-Elevators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a hod-elevator in which the hods are raised by means of an endless chain to which the hods are hung, which chain runs on and is operated by suitable sprocket-wheels or other gearing; and my invention consists in the combination, with links of said chain, of the laterally-projecting brackets, hereinafter described, together with a hod having a stud upon each side of the bowl thereof at the nose end of the hod, and adapted to engage the said brackets, all as and for the purpose specified.

Figure 1 is a side elevation of the endless chain and sprocket-wheels of a hod-elevating apparatus containing my invention. Fig. 2 is an enlarged view in perspective of several links of the chain, and showing my improved brackets on one of said links. Fig. 3 is a side view of a hod having the studs on each side of the bowl of the hod and adapted to engage the brackets on the chain, which is shown in this figure as a side elevation of a portion of the chain, and with the hod in position on the bracket; and Fig. 4 is a view in perspective of the saddle carrying the studs which I prefer to employ in constructing my improved hod. Fig. 5 is an end elevation of the same.

A is the endless chain of the hod-elevator. This chain runs over the sprocket-wheels A', one of which is in suitable bearings on the ground, or at the level where the material to be lifted in the hods is situated, and the other of which is in bearings in the upper part of the frame of the elevator apparatus. This chain is composed of links which run easily over the wheels A' and engage said wheels, so that the turning of said wheels will operate to move the chain. With links of this chain I combine the brackets B, and I find it preferable that the sides of the links which carry the brackets should be parallel with each other and in vertical straight lines, and the sides of the link should be at such a distance apart as to permit the

nose of the hod to enter between them. The brackets B are composed of the arms *b*, which extend forward from the sides of the link and carry upon their outward end the hook *b'*. The brackets may be cast with, or otherwise formed on or secured firmly to, the link of the chain, and the links carrying these brackets are placed or introduced in the chain throughout its length at intervals, and they are preferably placed at such a distance apart on the chain that a hod can be conveniently attached to each without interfering with one another. It is also preferable that the hook *b'* carried by each arm of the brackets constituting a pair on a link should be a double hook, as shown in the drawings—that is to say, it should have an upwardly-turned and a downwardly-turned end, so that whether the chain is ascending on its wheels on one side or descending on the other side the brackets will at all times present upwardly-turned hooks to the hods. By this means hods may be elevated on the ascending section of the chain, and the empty hods may be lowered on the descending section.

At C is shown my improved hod, adapted to be used in connection with my described chain. The hod is provided with two studs, *c*, one upon each side of the hod-bowl, and of such a length that they will engage the hooks of the brackets when the hod is passed between the brackets of a pair. These studs are preferably of iron, and I find it desirable to secure them to the hod by means of the saddle D. (Shown plainly in Fig. 5.) This saddle is composed of the seat *d*, on which the bottom of the hod rests, and the two arms *d'*, which extend upward and are inclined outward, so as to embrace and fit upon the sides of the hod-bowl. A cross-piece, *d''*, may extend across the end of the seat and fit upon the lower part of the nose of the hod. The arms *d'* carry the studs *c*, as shown, and the entire device may be securely bolted or otherwise secured on the hod. A brace, *d'''*, may be arranged to extend from the forward end of the saddle to the hod-handle, as shown. The described saddle will serve not only to securely attach the studs *c* to the hod, but will operate to strengthen the hod.

As most hods are formed open upon one end, called the "nose end" of the hod, it will be found preferable to attach the studs *c* to the



sides of the hod-bowl near the nose end, so that when the hod is hung upon the brackets it will by gravity be tilted or swung downward in the direction of the closed end of the hod, thus preventing the contents of the hod from escaping from the open end.

In the operation of my improved devices the laborer bearing the hod stands facing the elevator-chain, and by passing the nose of the hod between the brackets of a pair causes the studs on the hod to engage the hooks *b'*, when the hod will be lifted directly from his shoulder. The laborer does not therefore have to turn his body to bring his hod into proper relation to the elevating-chain, nor does he have to lift his hod from his shoulder before it is raised by the chain.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a hod-elevator apparatus, the combination, with links of the chain A, of the brackets B, arranged in pairs upon the links, and

carrying the hooks *b'*, whereby a hod provided with the studs *c* projecting from the sides of the hod-bowl will engage said hooks, as and for the purpose specified.

2. In a hod-elevator apparatus, the hod C, having the laterally-projecting studs *c* upon the exterior of the sides of the hod-bowl, whereby the hod may be hung upon brackets B on the elevating-chain, as and for the purpose specified.

3. In a hod-elevator apparatus, the hod C, in combination with the saddle D, composed of the seat *d*, and the upwardly and outwardly extending arms *d'*, carrying the studs *c*, whereby the hod may be hung upon brackets B on the elevating-chain, as and for the purpose specified.

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Witnesses:

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