

C. D. ROBERTS.

Land-Roller.

No. 57,773.

Patented Sept. 4, 1866.

Fig. 1.

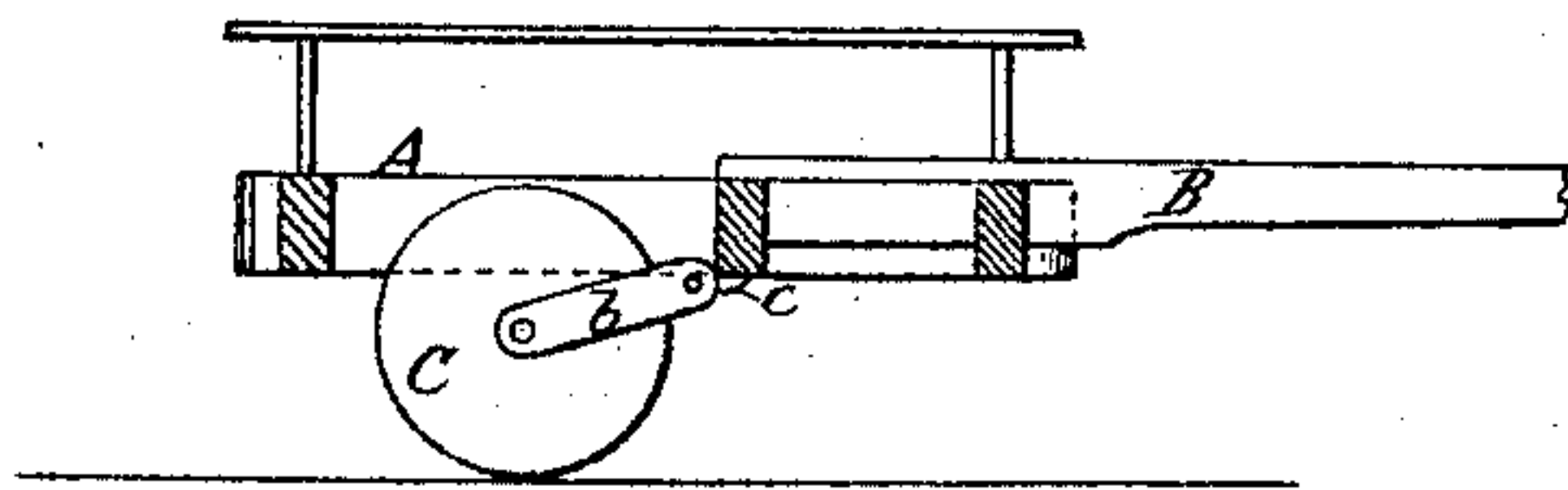


Fig. 5.

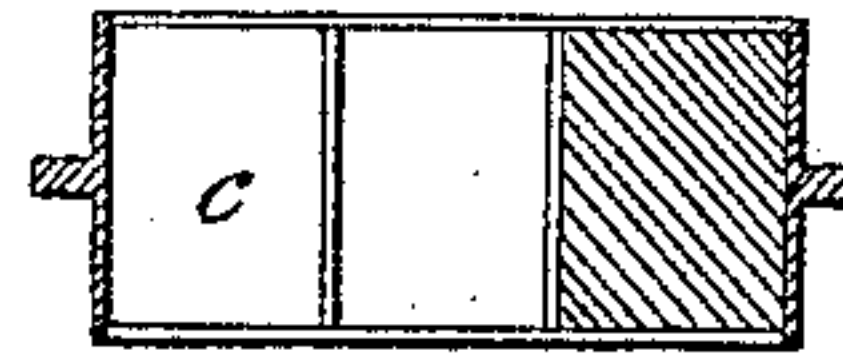


Fig. 6.

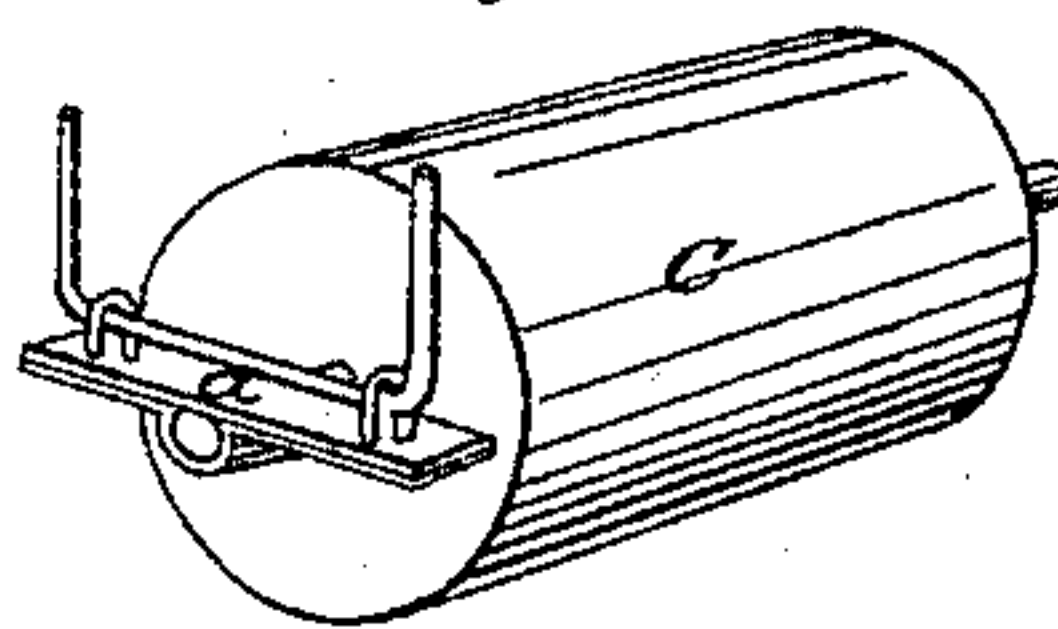


Fig. 2.

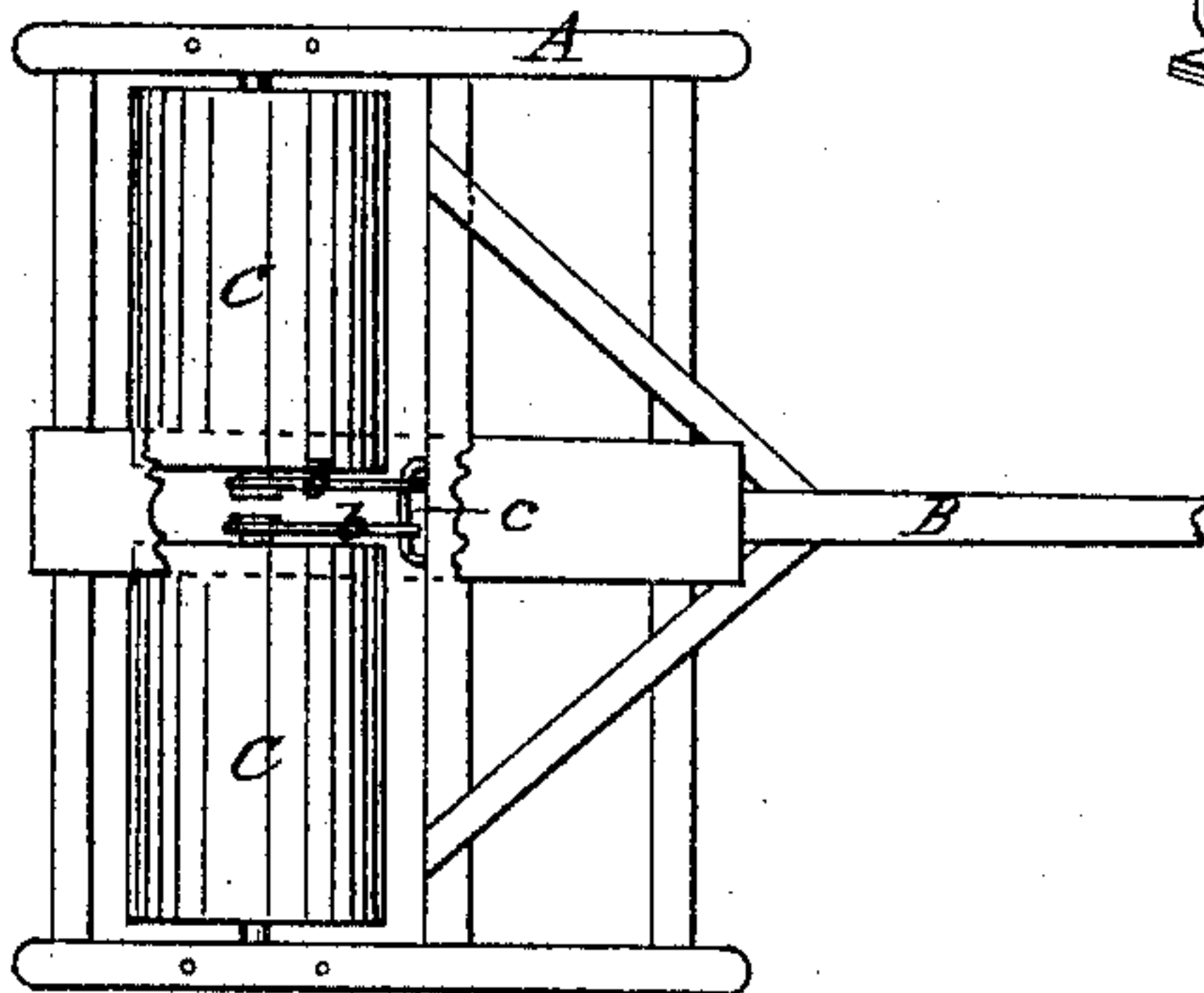


Fig. 7.

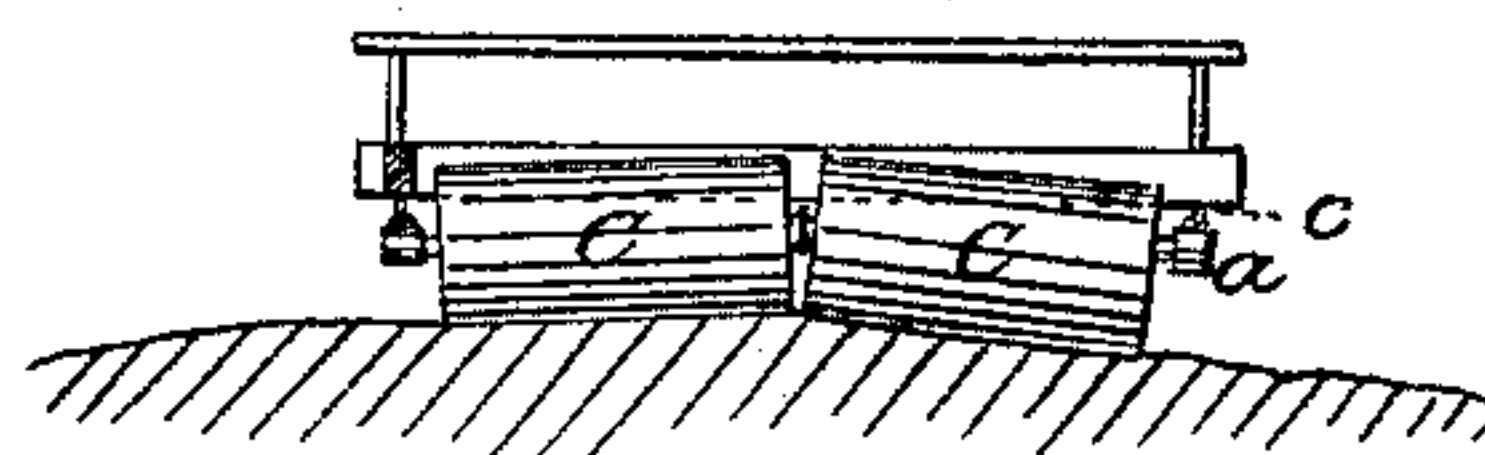


Fig. 3.

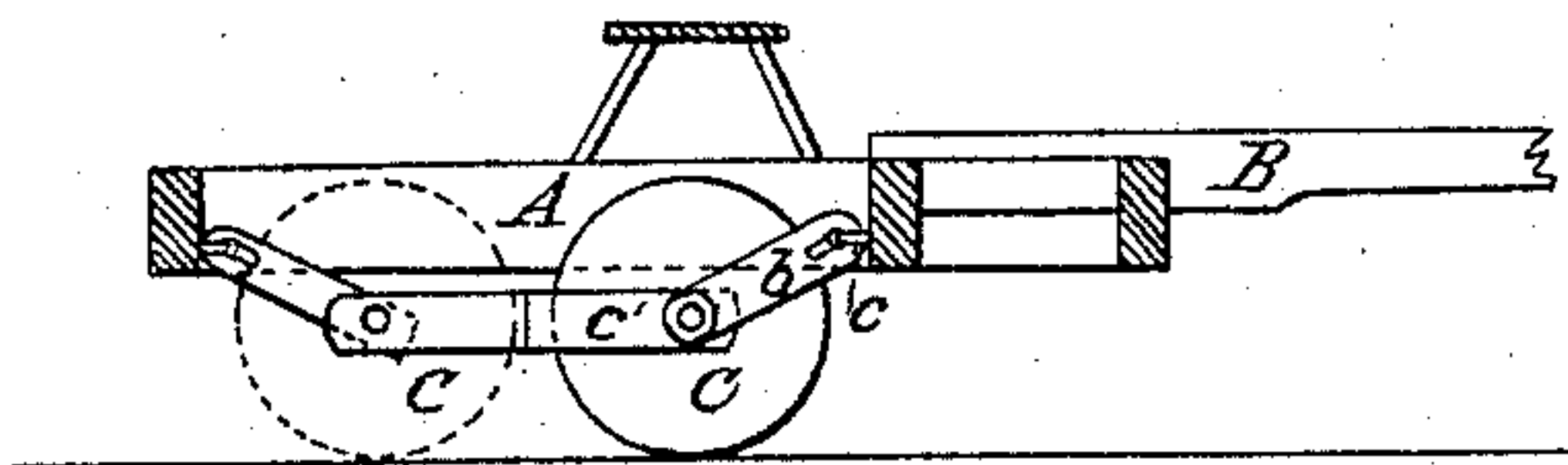
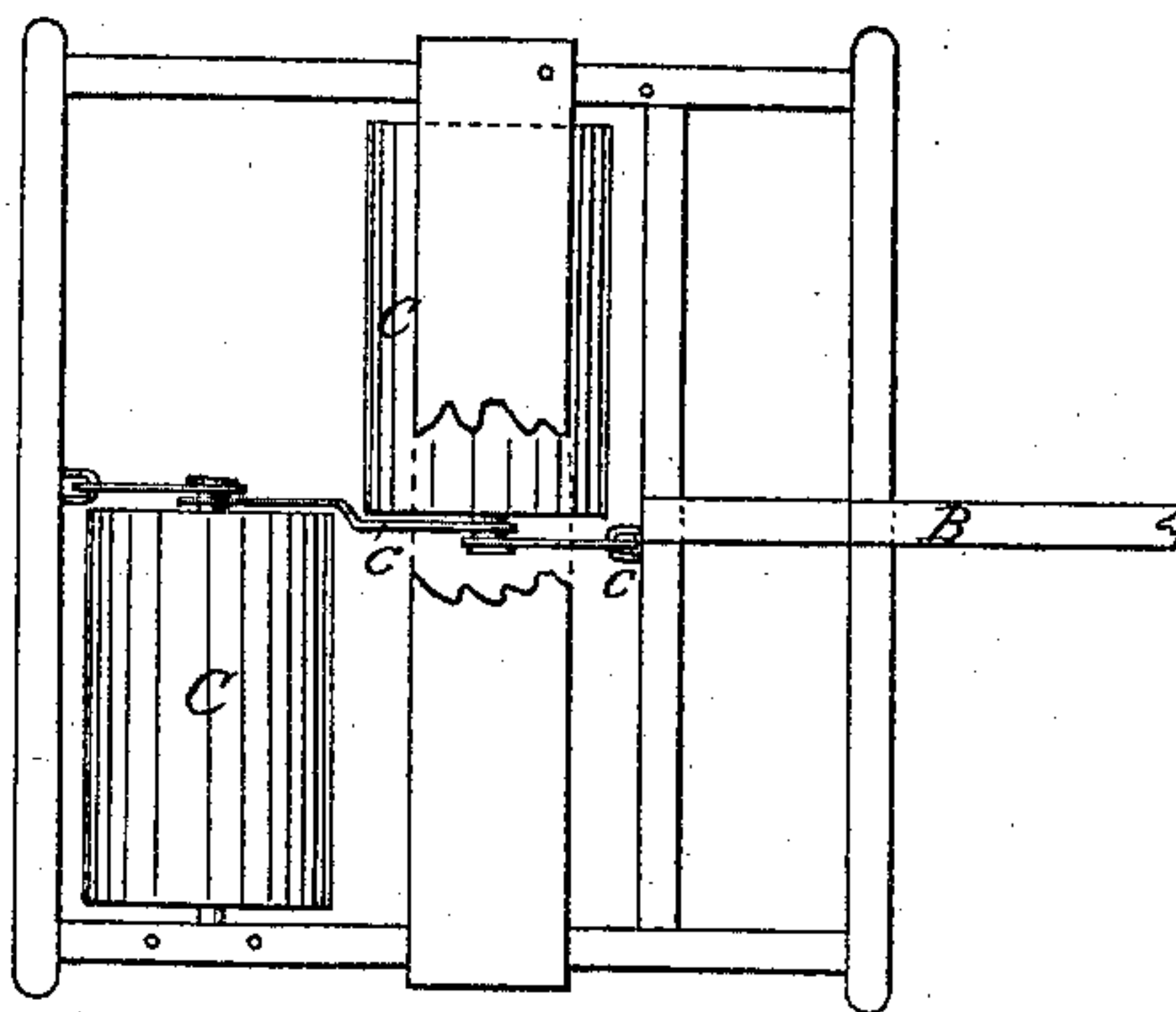


Fig. 4.



Witnesses:

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# UNITED STATES PATENT OFFICE.

C. D. ROBERTS, OF JACKSONVILLE, ILLINOIS.

## IMPROVEMENT IN GROUND-ROLLERS.

Specification forming part of Letters Patent No. 57,773, dated September 4, 1866.

*To all whom it may concern:*

Be it known that I, C. D. ROBERTS, of Jacksonville, in the county of Morgan and State of Illinois, have invented a new and useful Improvement in Ground-Rollers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings and letters of reference marked thereon, forming part of this specification.

My invention relates, first, to the mode of supporting the rolls in the frame when two or more are used, by which each roll is permitted to follow or adapt itself to the undulations of the ground; secondly, to weighting the inner ends of the rolls when two are used, to equalize the weight of the frame carried by the outer ends of the rolls; thirdly, to arranging the rolls when two or more are used, one in the rear of the other, so that no part of the ground is left unrolled.

In the accompanying drawings, Figure 1 is a sectional elevation, representing the mode of jointing or supporting the inner ends of the rolls. Fig. 2 is a plan. Fig. 3 is a sectional elevation, showing the mode of supporting the inner ends of the rolls and connecting the same together when employed one in the rear of the other. Fig. 4 is a plan of the same. Fig. 5 is a section of a roll through the plane of the axis. Figs. 6 and 7 are views which will be referred to in the description which follows.

Like letters of reference indicate like parts when employed in the different figures.

A is the frame of the implement, made in a rectangular form, to which the tongue B is secured. C C are rolls. These it is deemed best to make of wood and of large size. They may, if convenient, be covered with sheet-iron. The outer ends of these rolls are connected with the frame by a hinged or vibrating box, *a*, (see Fig. 6,) which receives the journal or axis of the roll. The inner ends of the rolls are carried by a bar, *b*, one end of which is connected by a link or staple, *c*, to

one of the cross-pieces of the frame, and the other, being left free to vibrate vertically, receives the inner journal or axis of the roll, as shown plainly in Figs. 1 and 2.

In Figs. 3 and 4 one roll is shown arranged in the rear of the other, the inner end of the rear roll being carried by link or bar *C'*, which extends from the inner journal or axis of the forward roll, as represented.

The construction and arrangement of the parts described are such that as the implement is drawn over the ground the rolls adjust themselves to inequalities and press with great uniformity over the whole surface, thus reducing or crushing the clods perfectly. (See Fig. 7.)

It will be seen that the weight of the frame is supported upon the outer ends of the rolls. To cause the inner ends of the rolls to press with a weight corresponding with the outer ends which carry the frame, I construct them with a division at a suitable distance—say one-third or one-half of the distance—from the inner end, and fill the inclosed space between the division and inner end of the roll with earth or clay. (See Fig. 5, in which the filling is represented by shade-lines.)

Having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is the following:

1. Supporting the outer ends of the axes of rolls C C in the hinged or vibrating boxes *a a* and the inner ends of the same in free ends of bars *b b*, permitting the rolls thereby to adjust themselves to the inequalities of the ground, substantially as described.

2. The connecting link or bar *c'*, in combination with rolls C C, hinged boxes *a a*, and bar *b*, when the rolls are arranged one in the rear of the other, as and for the purpose specified.

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Witnesses:

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