

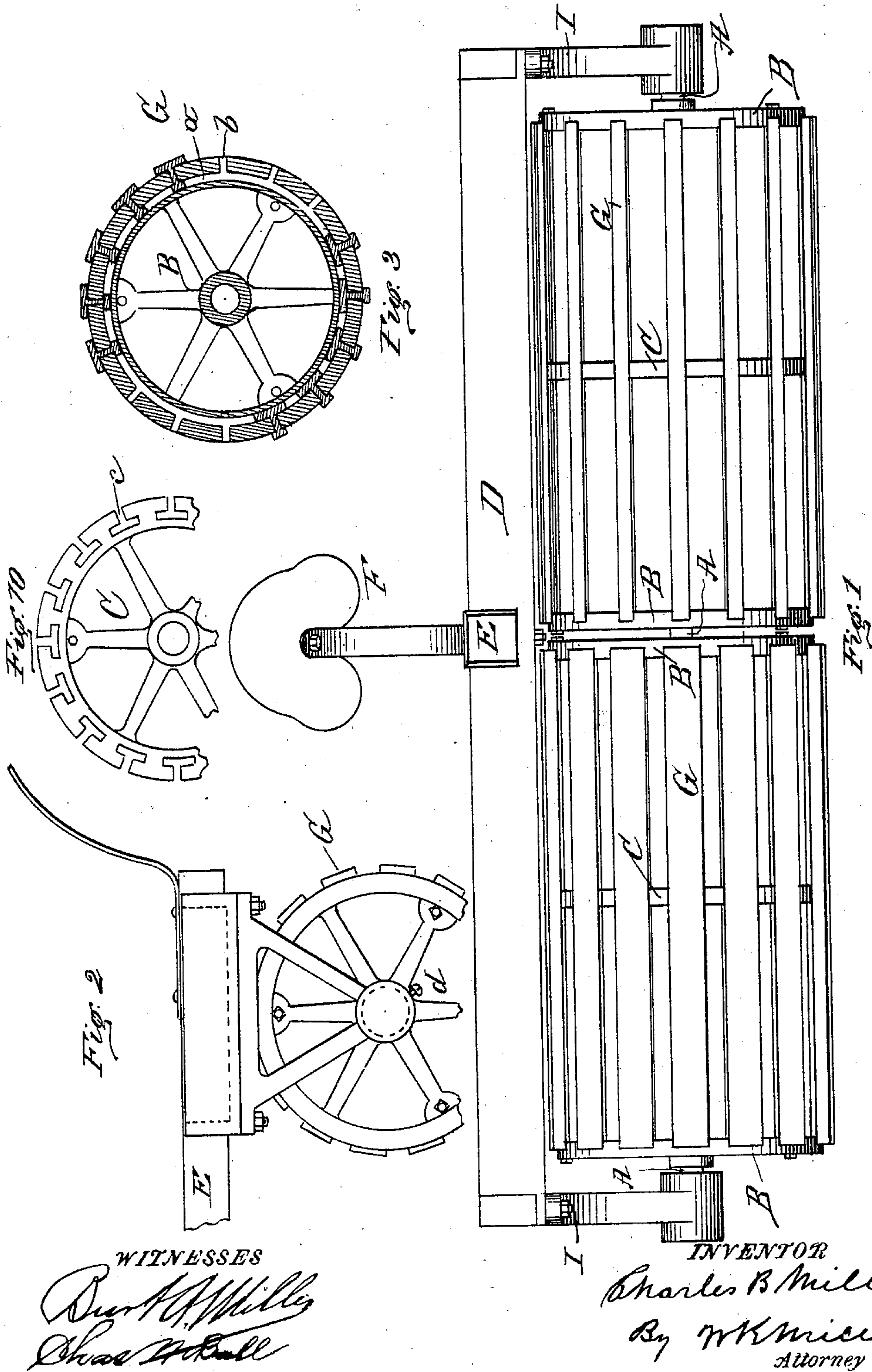
(No Model.)

2 Sheets—Sheet 1

C. B. MILLER.
LAND ROLLER.

No. 557,006.

Patented Mar. 24, 1896.



(No Model.)

2 Sheets—Sheet 2.

C. B. MILLER.
LAND ROLLER.

No. 557,006.

Patented Mar. 24, 1896.

Fig. 4

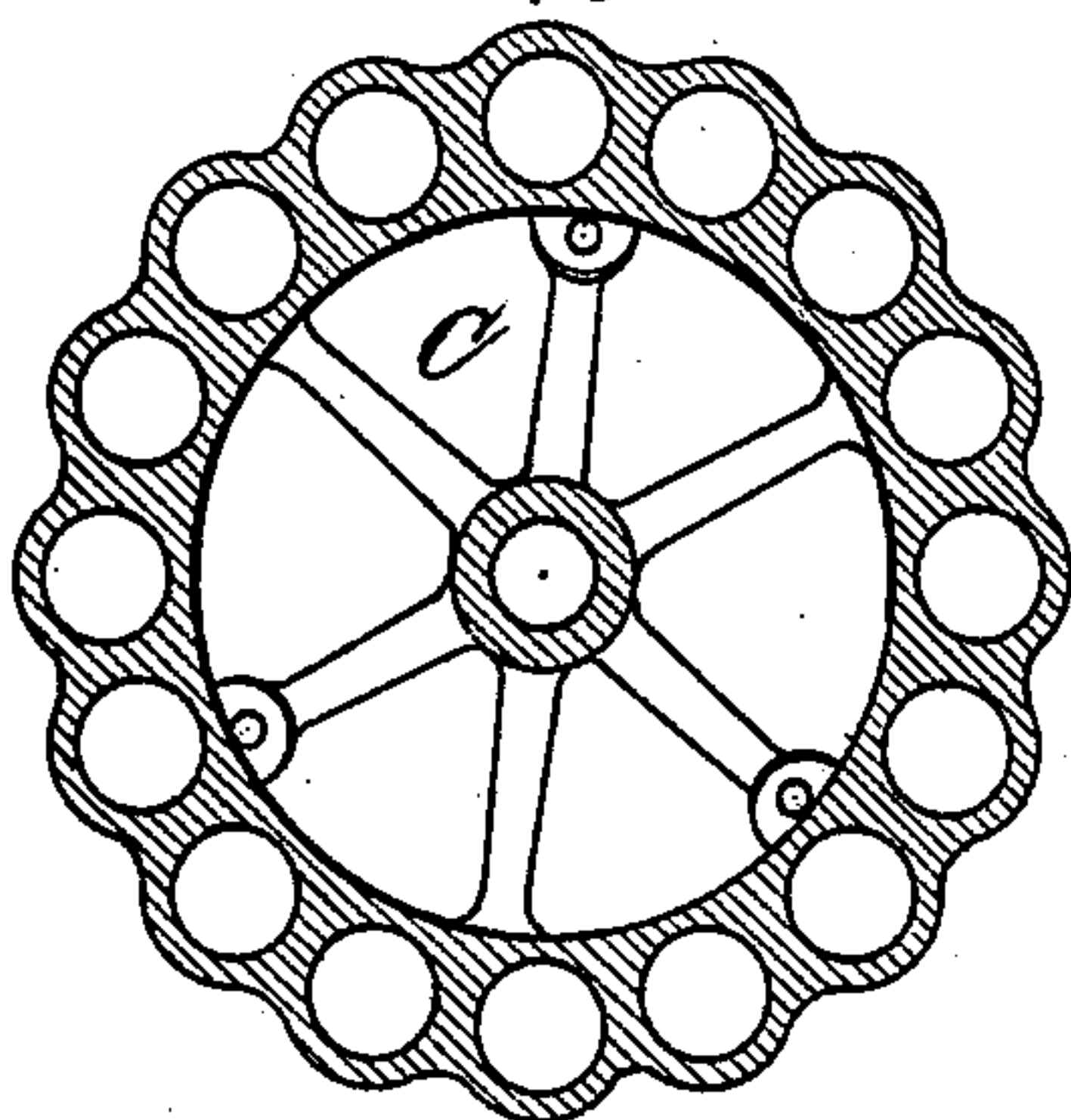


Fig. 5

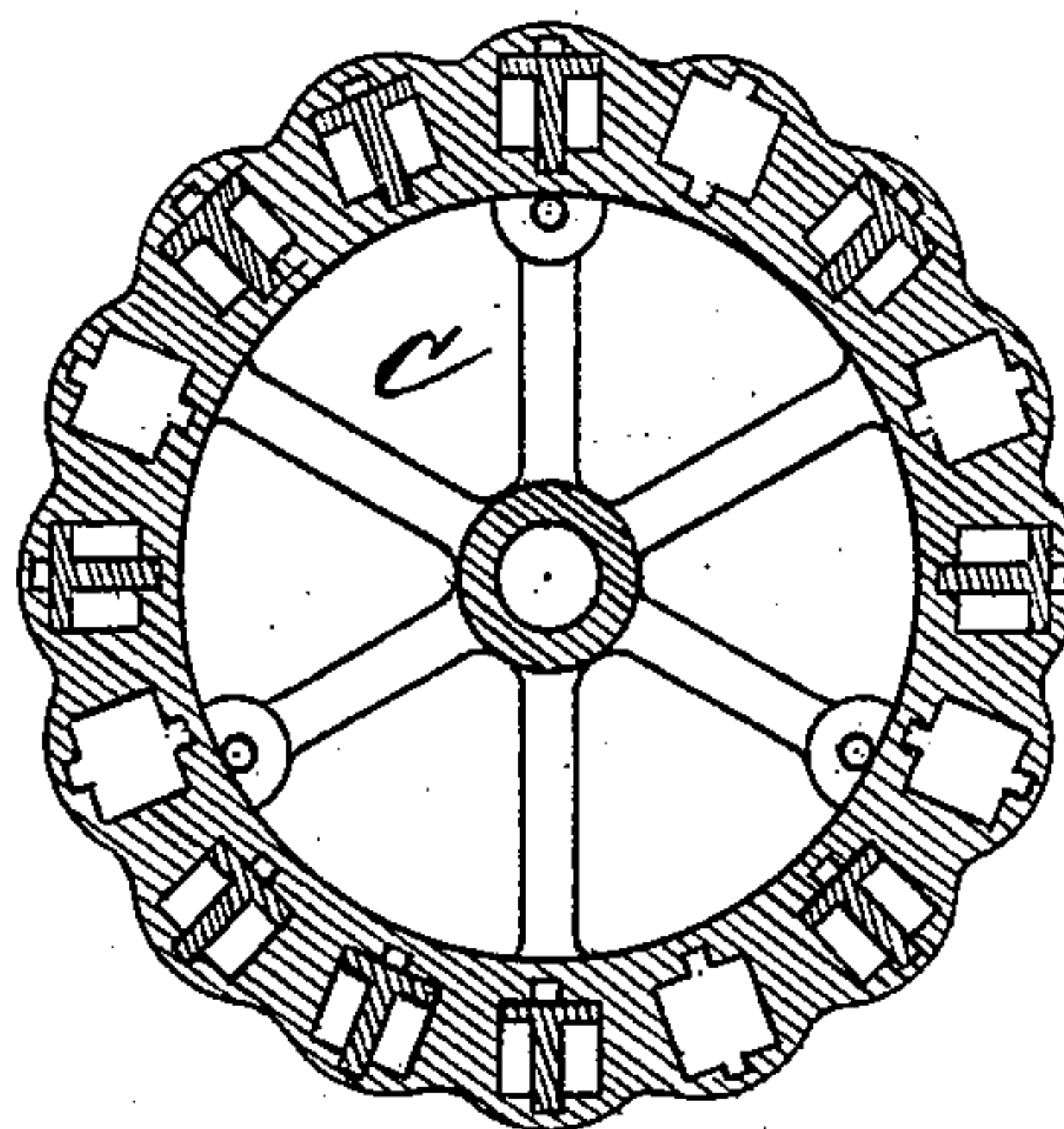


Fig. 6

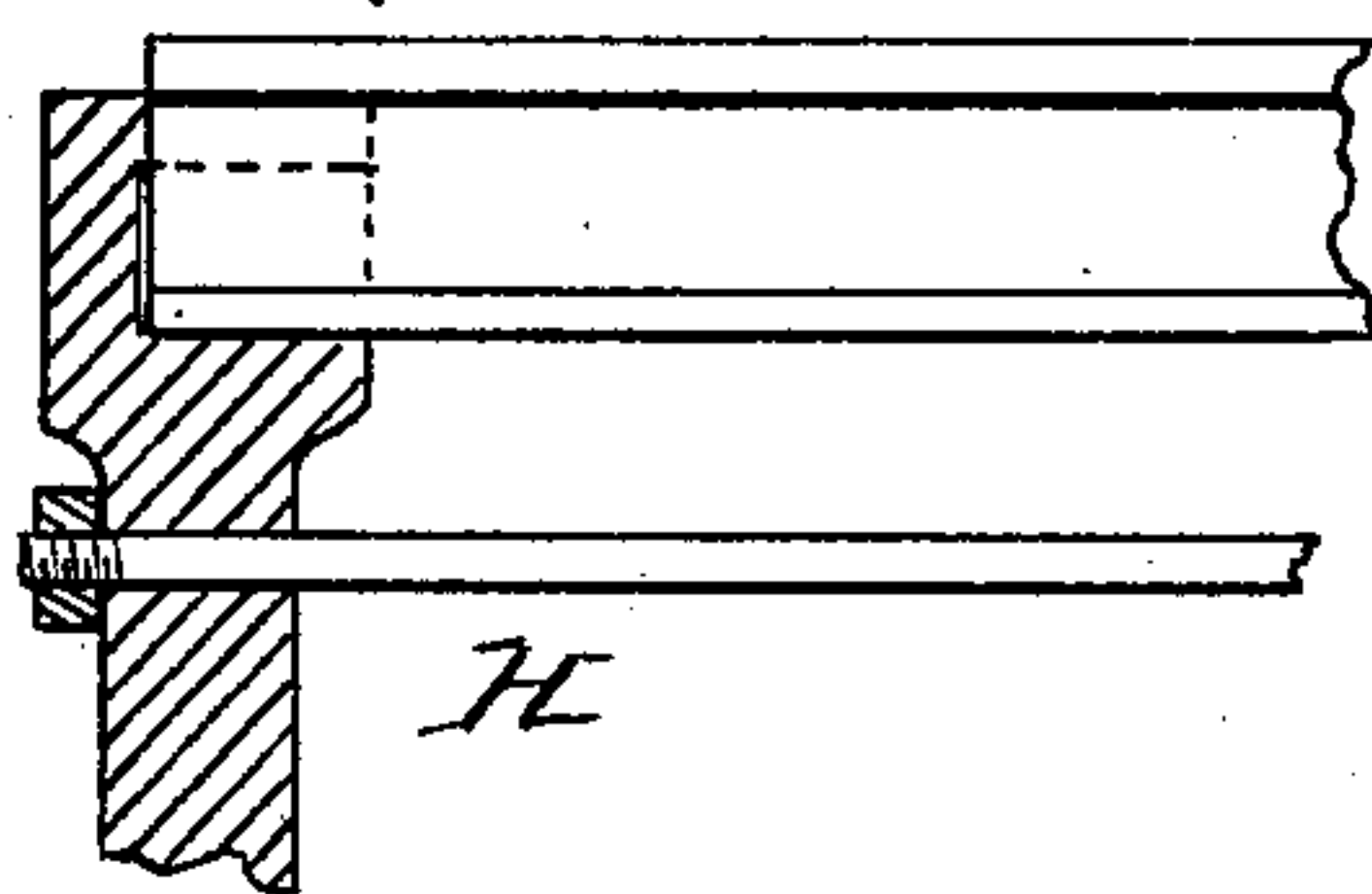


Fig. 7

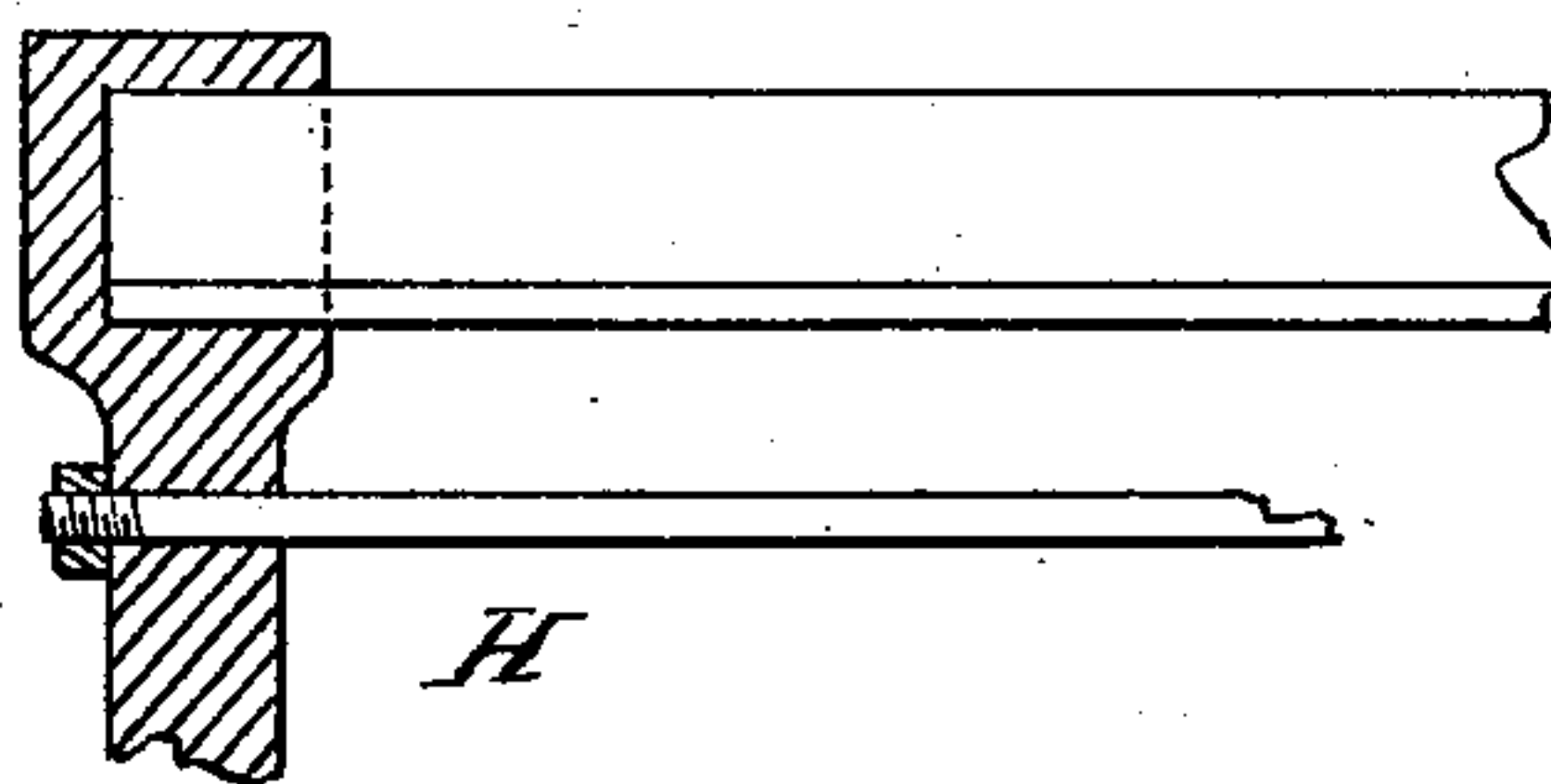


Fig. 8

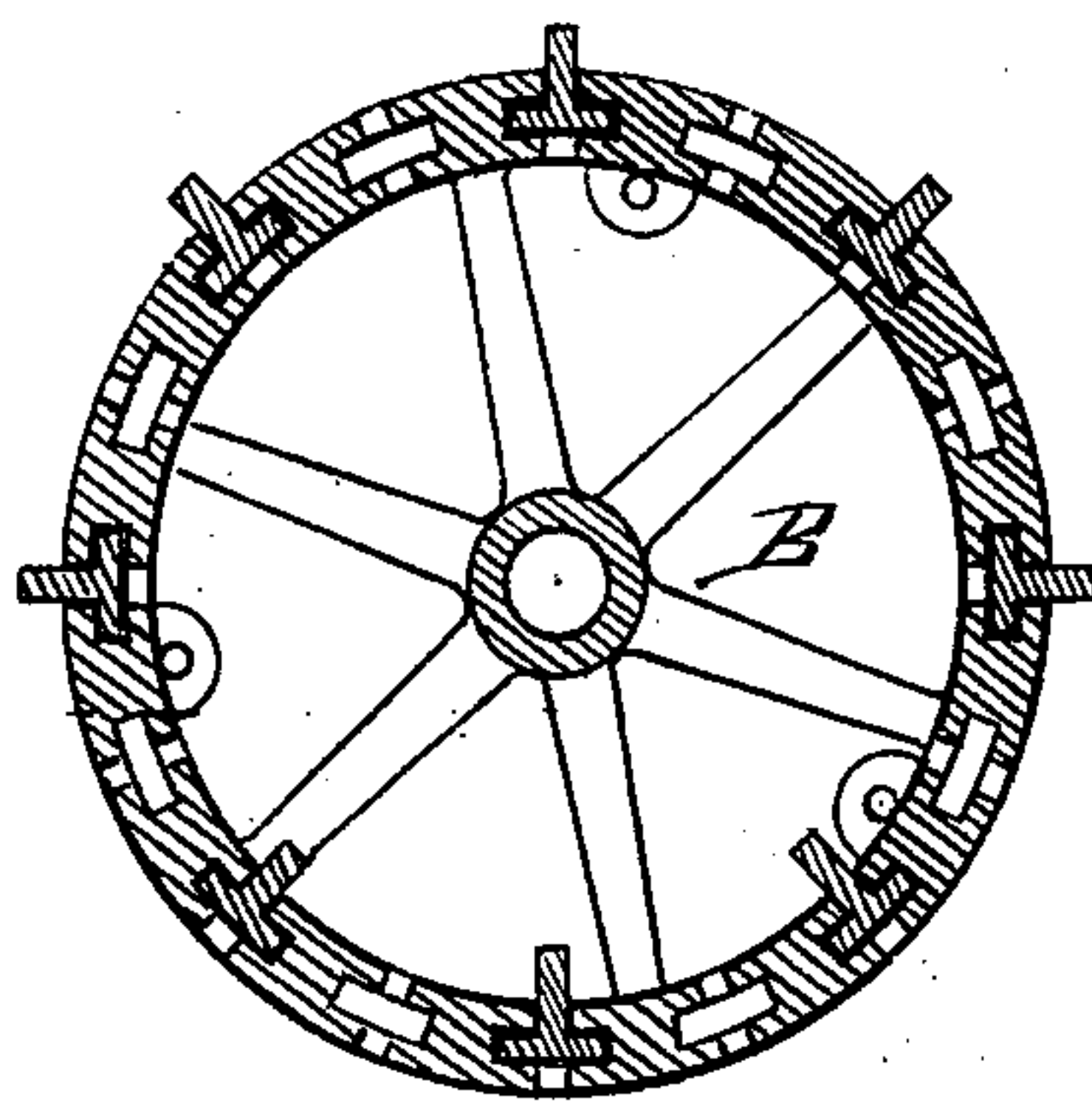
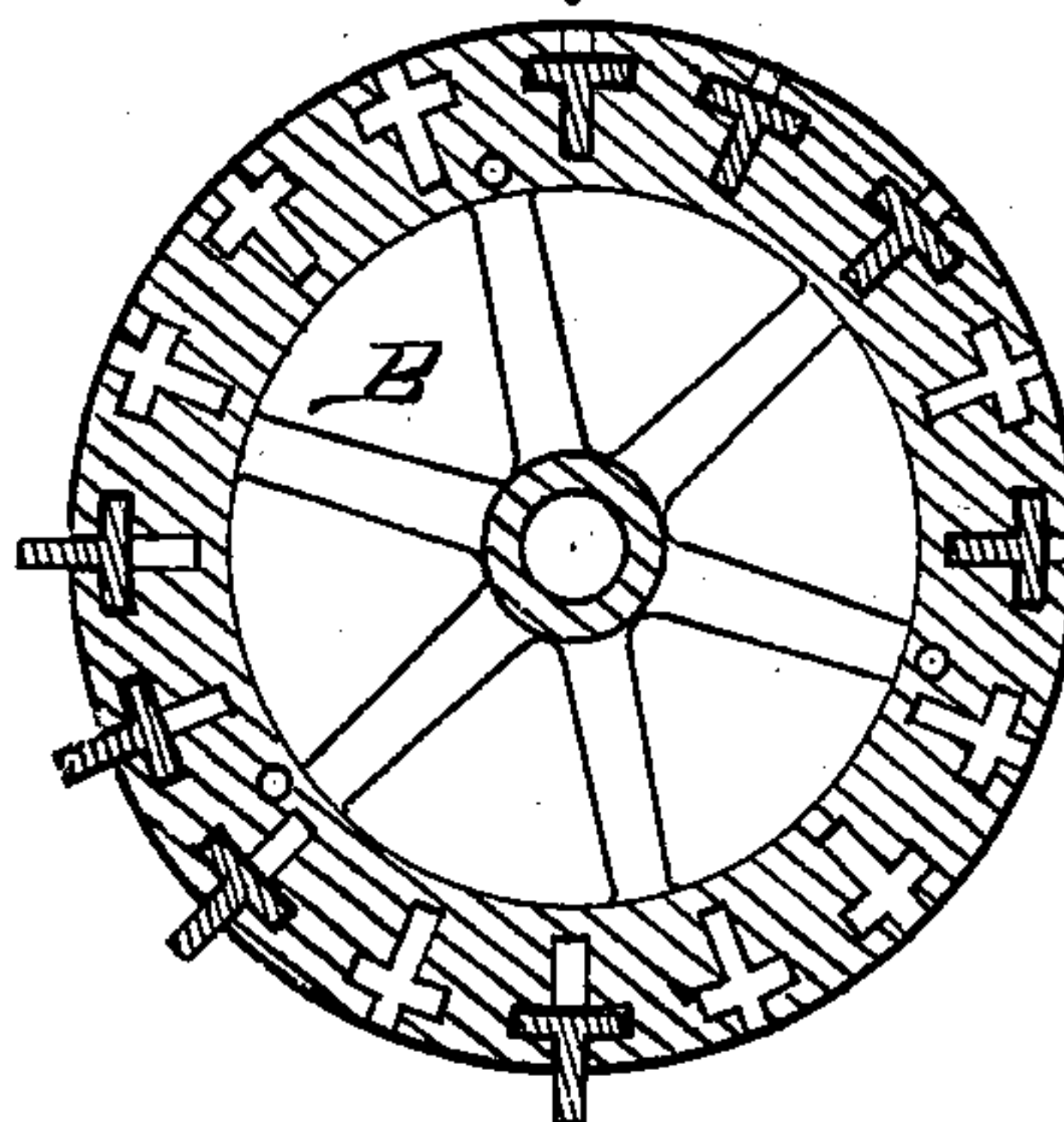


Fig. 9



WITNESSES

Geo. H. Miller
Geo. H. Miller

INVENTOR

Charles B. Miller
By W. H. Miller
Attorney

UNITED STATES PATENT OFFICE.

CHARLES B. MILLER, OF CANTON, OHIO, ASSIGNOR TO WILLIAM J. POYSER,
OF SAME PLACE.

LAND-ROLLER.

SPECIFICATION forming part of Letters Patent No. 557,006, dated March 24, 1896.

Application filed December 2, 1895. Serial No. 570,801. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. MILLER, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have
5 invented a new and useful Improvement in Land-Rollers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

10 My invention relates to improvements in land-rollers; and it consists of certain features of construction and combination of parts hereinafter described, and particularly pointed out in the claims.

15 The object of my invention is to produce a combined roller and pulverizer having any desired number of sections, the heads thereof having retaining-flanges so formed as to hold in place either surface of the girder-iron bars
20 constituting the rolling or pulverizing surface of the sections, the machine thereby becoming interchangeably either a land-roller or a land-pulverizer. I obtain this object by the mechanism illustrated in the accompany-
25 ing drawings, in which—

Figure 1 is a rear view of the machine, showing the bars so arranged in one section as to produce a roller and in the other a pulverizer. Fig. 2 is an end view. Figs. 3, 8 and
30 9 are sectional views of the heads. Figs. 4, 5 and 10 are sectional views of the intermediate supporting-wheels. Figs. 6 and 7 are detailed views of a portion of the rim of the head, showing the method of retaining the bars in
35 the head and the retaining-rod and clamping-nut.

Similar letters refer to similar parts throughout the several views.

40 The shaft A, upon which the machine is built, carries the heads B B and the intermediate supporting-wheels C. The ends of the shaft are journaled in depending brackets, as I, bolted to the box D, to which are attached the tongue E and the spring-supported seat F.

45 The machine may consist of as many sections as may be desired, which are formed in the following manner: In the inner surface of the rim of the circular heads B and cast integral therewith are annular grooves a and
50 radial slots b extending outwardly therefrom, which engage and retain the girder-iron bars

G in position. Upon the rim of the intermediate or supporting wheel C and also cast integral therewith are T-shaped apertures c, through which the girder-iron bars are passed. 55

If it is desired to adjust the bars so as to form a pulverizer, one of the heads B and the intermediate supporting-wheel C are slipped upon the axle A and the head and supporting-wheel fastened thereto by means
60 of bolt d, passing through the hub and impinging against the axle. The girder-iron bars are then passed through the T-shaped apertures c in the wheel C, the flange on the end thereof engaging with the circumferen-
65 tial grooves in the head B and the web with the radial slots thereof. The second head B is then passed onto the axle engaging the bars, as heretofore described, and is in turn bolted to the axle. As a further protection
70 against longitudinal displacements, a rod H, having on one end thereof a head and upon the other a thread to engage with the clamping-nut, is passed through the heads B B and the wheel C and the clamping-nut placed
75 thereon, as is shown in Figs. 6 and 7.

In case it should be desired to arrange the bars so as to produce a land-roller and thus present a greater surface to the ground the operation is repeated, as heretofore described,
80 with the exception that the bars are so adjusted in the heads that the flange or wider portion thereof shall be outermost and the narrower flange on the web shall engage the circumferential groove in the head. The
85 same result may be accomplished by the use of T-iron, and when employed the heads have cast integral therewith and on the inner side thereof radial slots and intersecting cross-
90 grooves, as shown in Figs. 8 and 9, while the intermediate supporting-wheels have either circular apertures passing therethrough, as shown in Fig. 4, or square apertures provided with intersecting radial apertures, as is shown in Fig. 5. 95

Having thus fully described my invention, what I desire to secure by Letters Patent is as follows:

1. In a land-roller, the combination of the axle journaled in the brackets supporting the
100 box carrying the tongue and seat, with the heads provided with circumferential slots and

radial grooves in the inner surface thereof, adapted to engage with girder-iron bars, substantially as and for the purpose set forth.

2. In a land-roller, the combination of the
5 axle journaled in brackets supporting the box carrying the tongue and seat, with the heads and intermediate supporting-wheel C, adapted to interchangeably engage with the flange and web, of girder-iron bars, substantially as
10 described and for the purpose set forth.

3. The combination in a land-roller, of the axle journaled in brackets supporting the box carrying the tongue and seat, with the heads having on the inner surface thereof, annular
15 grooves and radial slots, adapted to interchangeably engage the web and flange of girder-iron bars, substantially as and for the purpose set forth.

4. The combination in a land-roller, of the
20 axle journaled in brackets supporting the box carrying the tongue and seat, of the heads having on the inner surface thereof, radial slots intersected by circumferential grooves,

and adapted to engage interchangeably the flange and web of T-iron bars, substantially
25 as and for the purpose set forth.

5. The combination in a land-roller, of the axle journaled in brackets supporting the box carrying the tongue and seat, of heads adapted to engage interchangeably with either the
30 flanges or web of T-iron bars thereby producing either a land roller or pulverizer, substantially as described and for the purpose set forth.

6. In a land-roller, the combination with
35 heads having annular grooves intersected by radial slots, of slats having crushing working faces and rolling working faces, said slats adapted to be interchangeably engaged in said slots and grooves, substantially as set forth.
40

In testimony whereof I have hereunto set my hand this 31st day of August, A. D. 1895.

CHARLES B. MILLER.

Witnesses:

W. K. MILLER,

BURT A. MILLER.