

(No Model.)

J. W. RHODES.
SEEDING MACHINE WHEEL.

No. 459,979.

Patented Sept. 22, 1891.

Fig. 1.

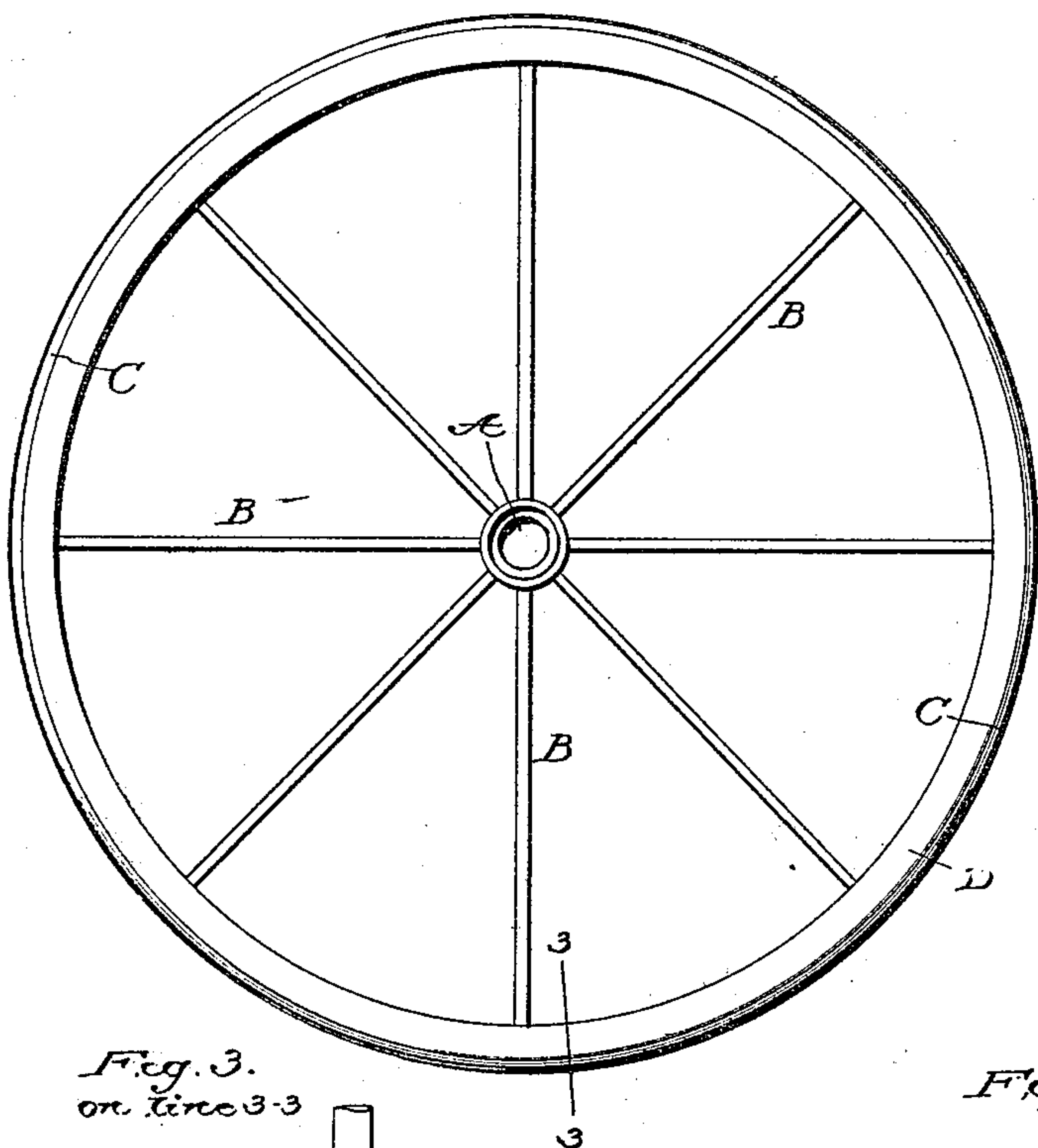


Fig. 2.

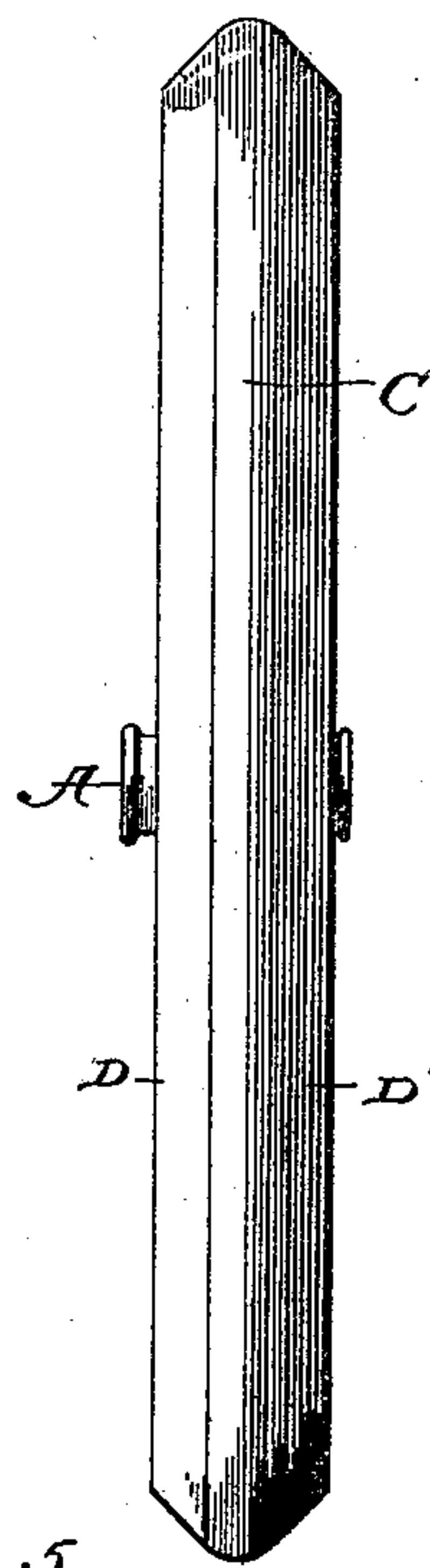


Fig. 3.
on line 3-3

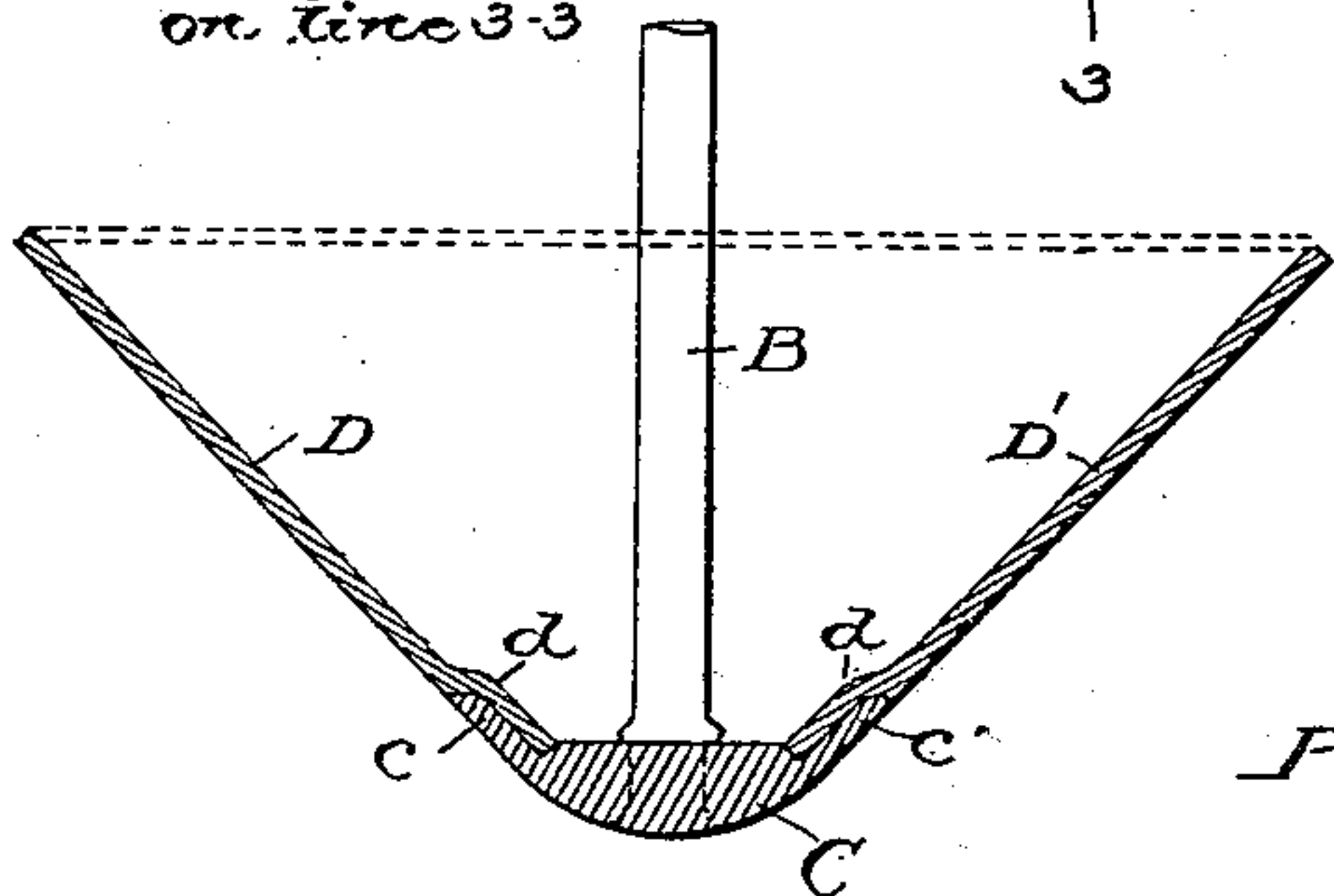


Fig. 5.

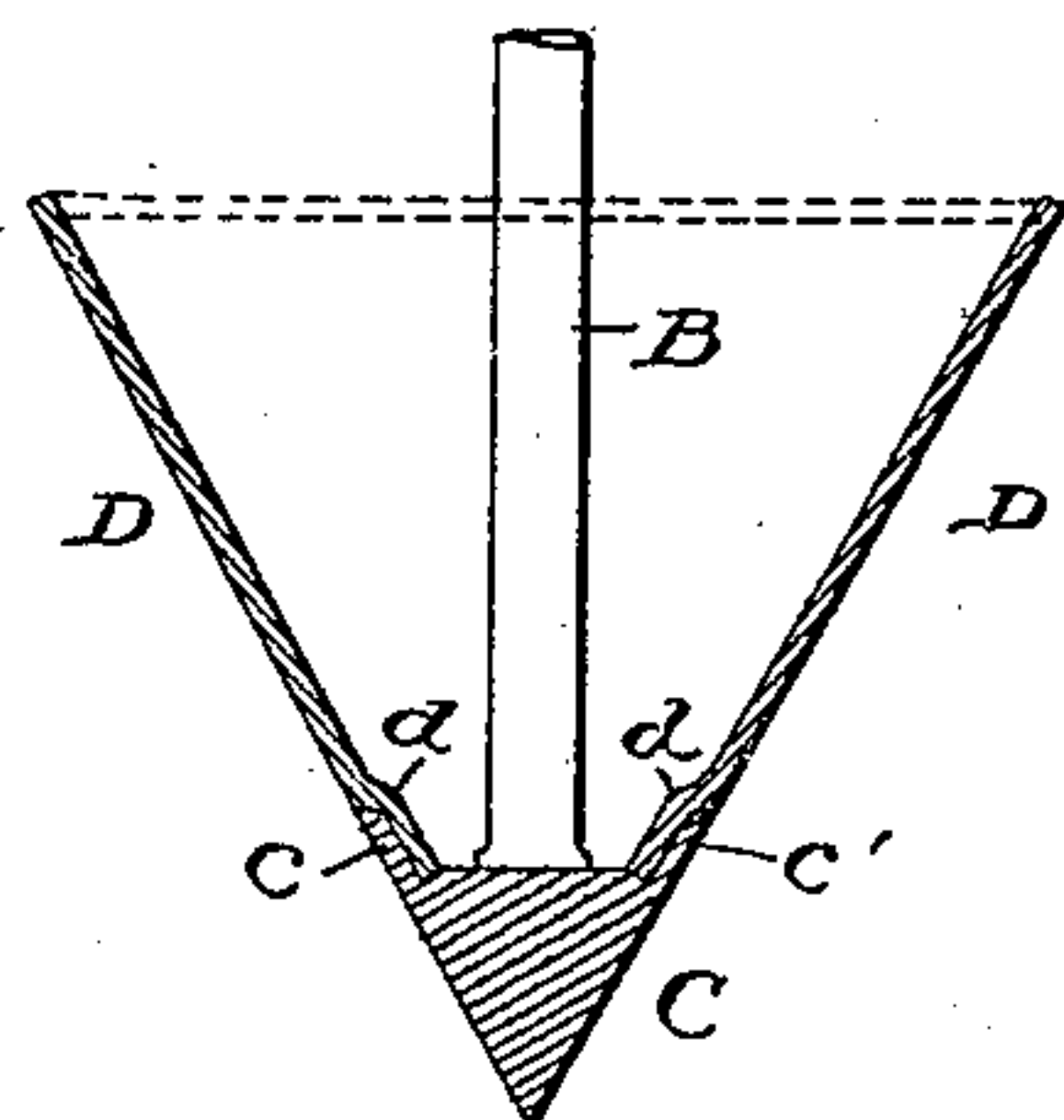


Fig. 7.

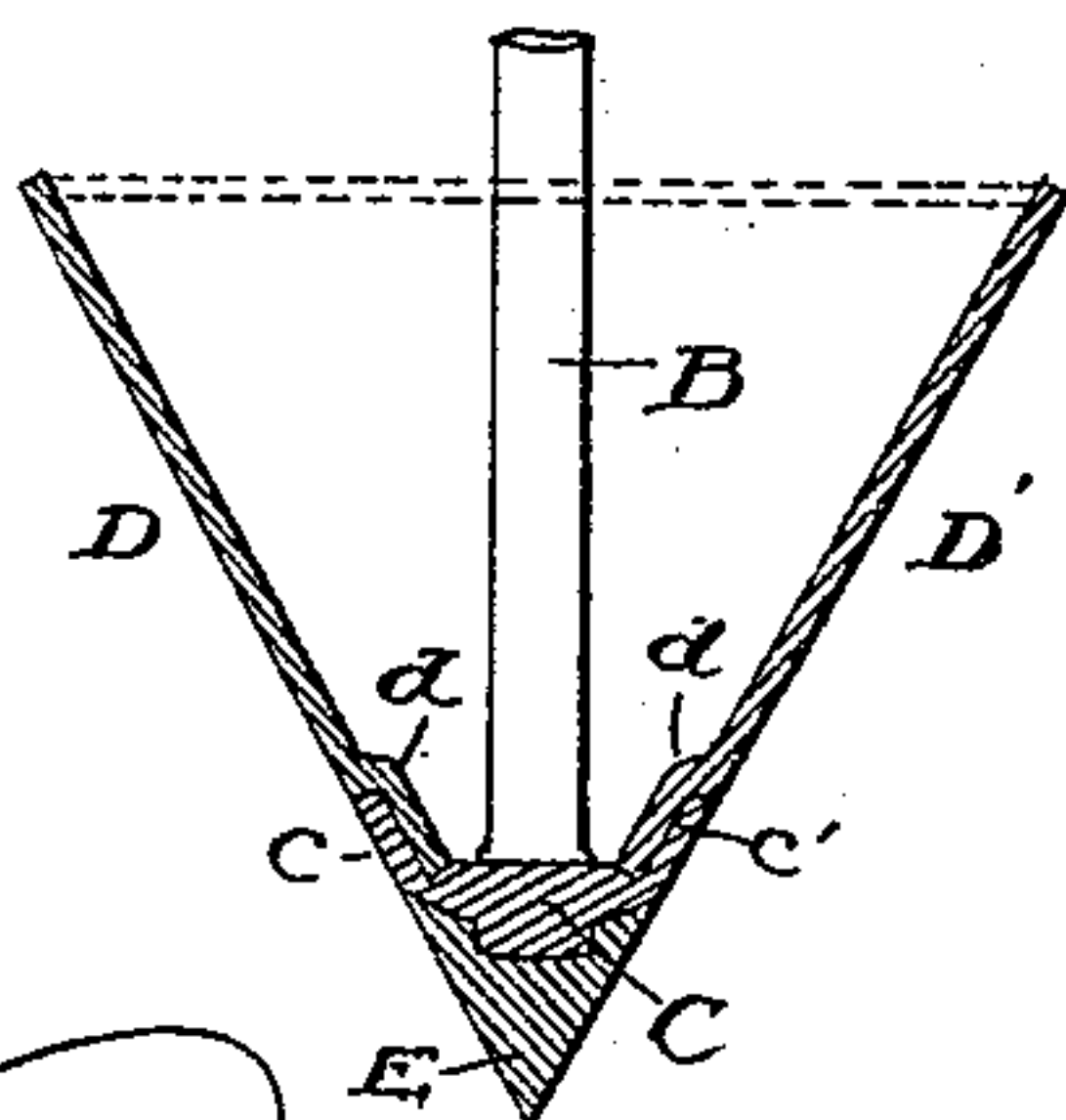
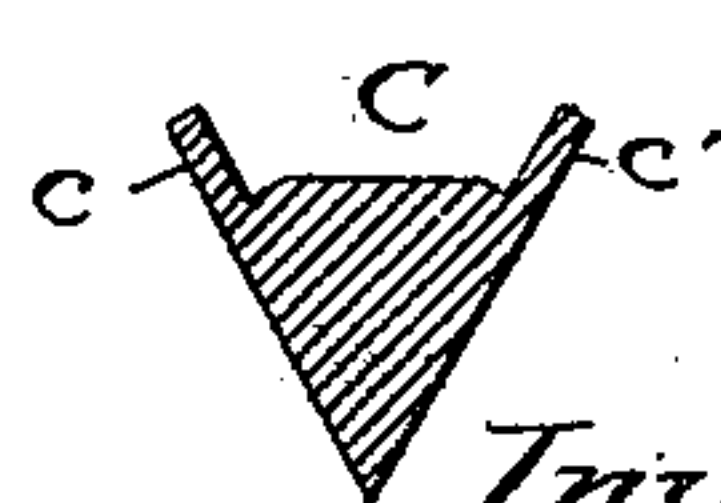


Fig. 4.



Fig. 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN W. RHODES, OF HAVANA, ILLINOIS.

SEEDING-MACHINE WHEEL.

SPECIFICATION forming part of Letters Patent No. 459,979, dated September 22, 1891.

Application filed March 12, 1891. Serial No. 384,760. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. RHODES, of Havana, in the county of Mason and State of Illinois, have invented certain Improvements in Seeding-Machine Wheels, of which the following is a specification.

My invention relates to what are known as "pressure-wheels" or "covering-wheels" for grain-drills. These wheels are constructed of a beveled or V form at the periphery and are intended to compress or compact the soil and form a furrow therein.

The invention relates to an improved manner of constructing the wheel; and it consists, essentially, in the combination of two dished or concave rings forming the sides of the wheel-rim with an encircling ring or felly, the edges of which are arranged to overlap and confine the side rings before referred to. The edges of this outer rim may be bent or flanged down over the side rings after the latter are in position, or the flanges may be first formed and then shrunk into place over the outer edges of the side rings.

In the accompanying drawings, Figure 1 is a side elevation of my improved wheel. Fig. 2 is an edge view of the same. Fig. 3 is a cross-section on the line 3 3. Fig. 4 is a cross-section of the outer rim or felly as it appears before its edges are bent or flanged down to hold the side rings. Fig. 5 is a cross-section through the periphery of a wheel with the outer ring shrunk in place thereon. Fig. 6 is a cross-section of the rim or felly as it appears before being applied. Fig. 7 is a cross-section illustrating the periphery of the wheel in another form.

In each of its forms my wheel consists of a hub A, a series of spokes B, secured at their inner ends thereto, a peripheral rim or felly C, secured to the outer ends of the spokes, and two dished or concave rings D D', located on opposite sides of the wheel, their outer faces converging toward the periphery and their outer edges confined by and within the overlapping lips c c', extending along the edges of the rim C, so that the wheel presents in cross-section at the outer periphery a V form, whereby it is adapted to form a corresponding furrow in the soil. The hub and spokes may be constructed and united in any appropriate manner, or the spokes may be replaced by a

solid wedge or disk, as commonly practiced in the construction of metal wheels, these features forming no part of the present invention.

The annular side plates or rings D D' are preferably formed each from a single plate of sheet-steel or other metal pressed or bent into suitable form; but they may obviously be made by bending a curved strip of metal into the required form and uniting its two ends. These are, however, matters within the limits of mechanical skill and are not deemed essential. Each ring D is preferably bent inward or offset around its outer edge, as shown at d, in order that its outer surface may lie flush with the outer surface of the confining-lip c, as shown in the drawings.

The rim or felly C may be constructed in a flat form, as shown in Fig. 4, and in this form secured to the spokes, after which the rings D may be placed in position and the edges of the rim bent or flanged inward to confine the rings D, as shown in Fig. 3.

Instead of forming the lips after the rings D, are in position the rim C may be formed, as shown in Fig. 6, with the lips or flanges c along its edges, and while in this form it may be heated and expanded, the rings D then inserted, and the rim finally cooled and shrunk into place, so that its lips will engage and confine the rings, or the flanged rim may be contracted or compressed while cold by the application of external pressure in the manner now commonly practiced in the application of metal tires to wheels of other forms.

The rim or felly C may be made of any desired form in cross-section provided it is adapted to confine the rings or side plates. It may be brought to a sharp outer edge, as shown in Fig. 5, or rounded at the outer edge, as shown in Fig. 3, or if of flat or rounded form it may be encircled by a tire E, of a sectional form corresponding to that of the required felly, shrunk in place or otherwise secured thereto, as in Fig. 7.

It will of course be understood that the spokes may be shouldered and inserted through the rim C, as shown in the drawings, or attached thereto in any other suitable manner, various modes of attachments suitable for the purpose being known in the art.

It will be observed that in my wheel the edges of the rim engage over the outer edges

and faces of the side rings, so that the rim serves without assistance as a means of carrying and holding the rings.

Having thus described my invention, what I claim is—

1. In a wheel for a seeding-machine, the combination of the dished side rings and the encircling rim engaging over and holding the outer edges of said plates.
2. A furrow-wheel for seeders, consisting of a hub, spokes, a rim or felly carried by the spokes, and two concave side plates or rings having their outer edges encircled and confined in place solely by the rim.

3. In a furrow-wheel, the concave side plates or rings having their outer edges depressed or offset, in combination with the encircling rim having its edges engaged over the depressed edges of the plates, whereby the outer faces of the rings and the rim are brought flush with each other or practically so.

In testimony whereof I hereunto set my hand, this 17th day of February, 1891, in the presence of two attesting witnesses.

JOHN W. RHODES.

Witnesses:

H. A. GAGER,

ISAAC N. MITCHELL.