

No. 659,650.

Patented Oct. 16, 1900.

G. F. CONNER.
TRACTION WHEEL.

(Application filed Mar. 1, 1900.)

(No Model.)

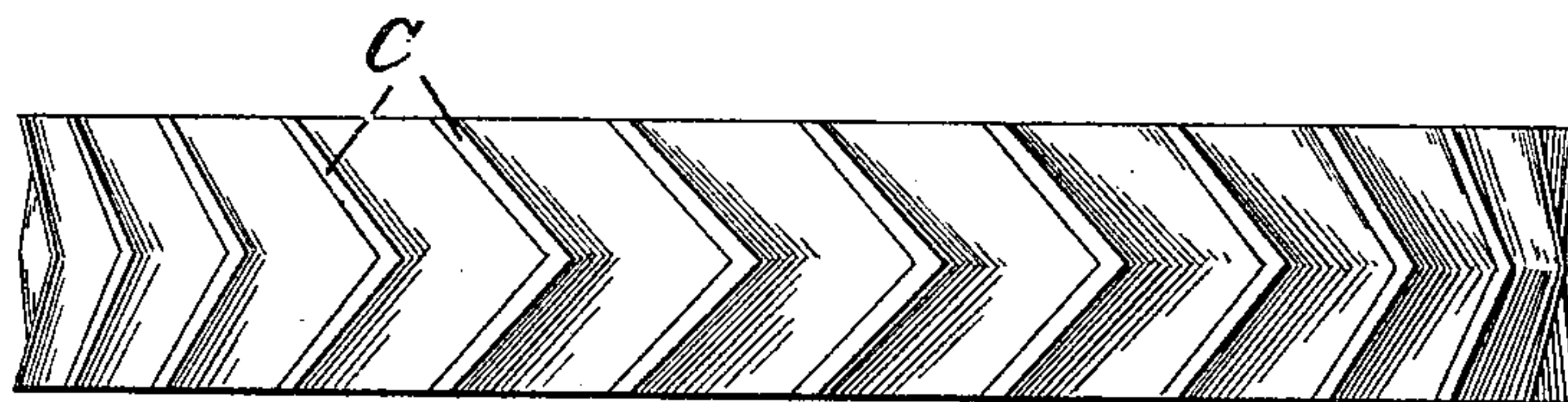
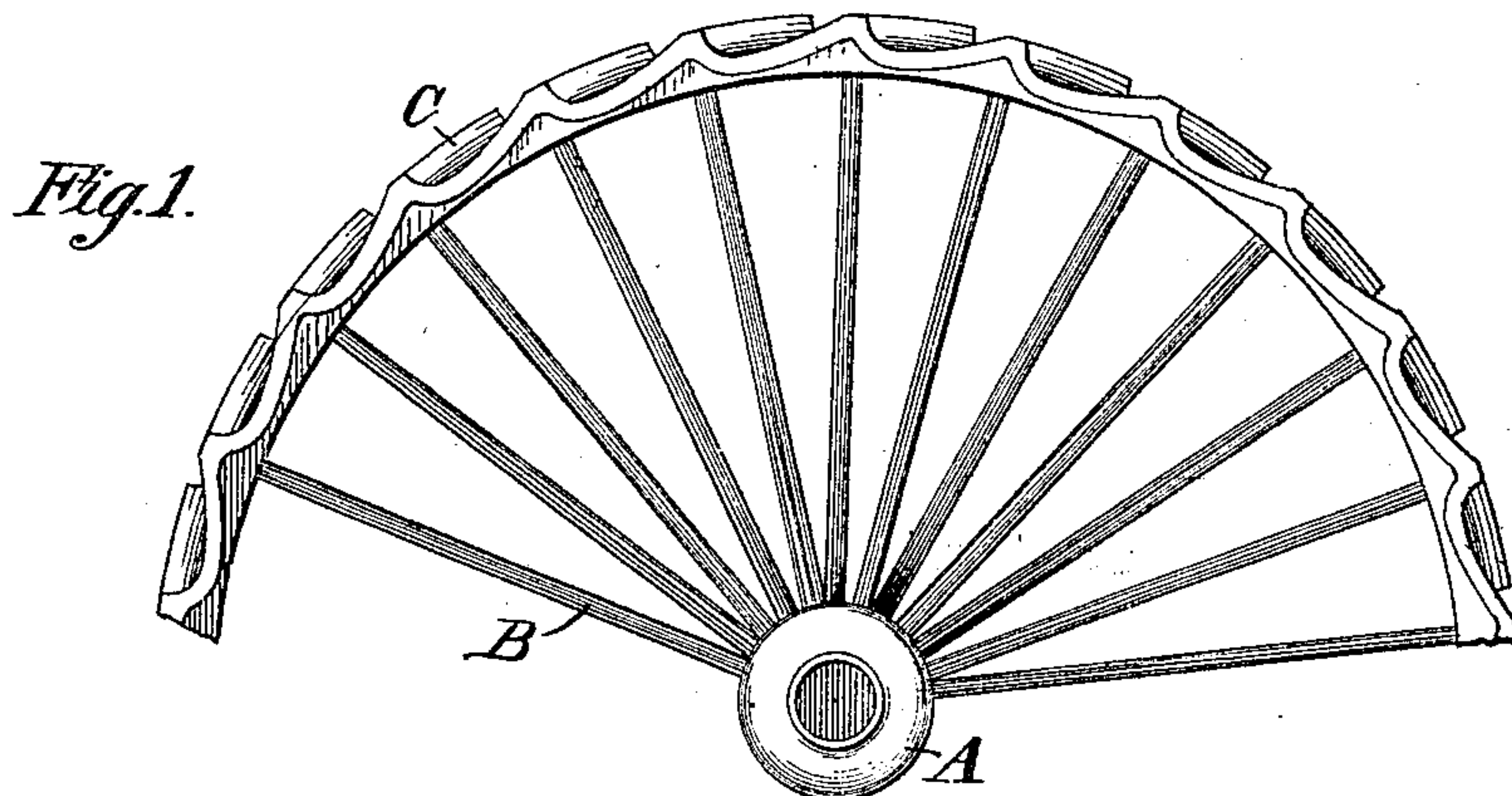


Fig. 2.

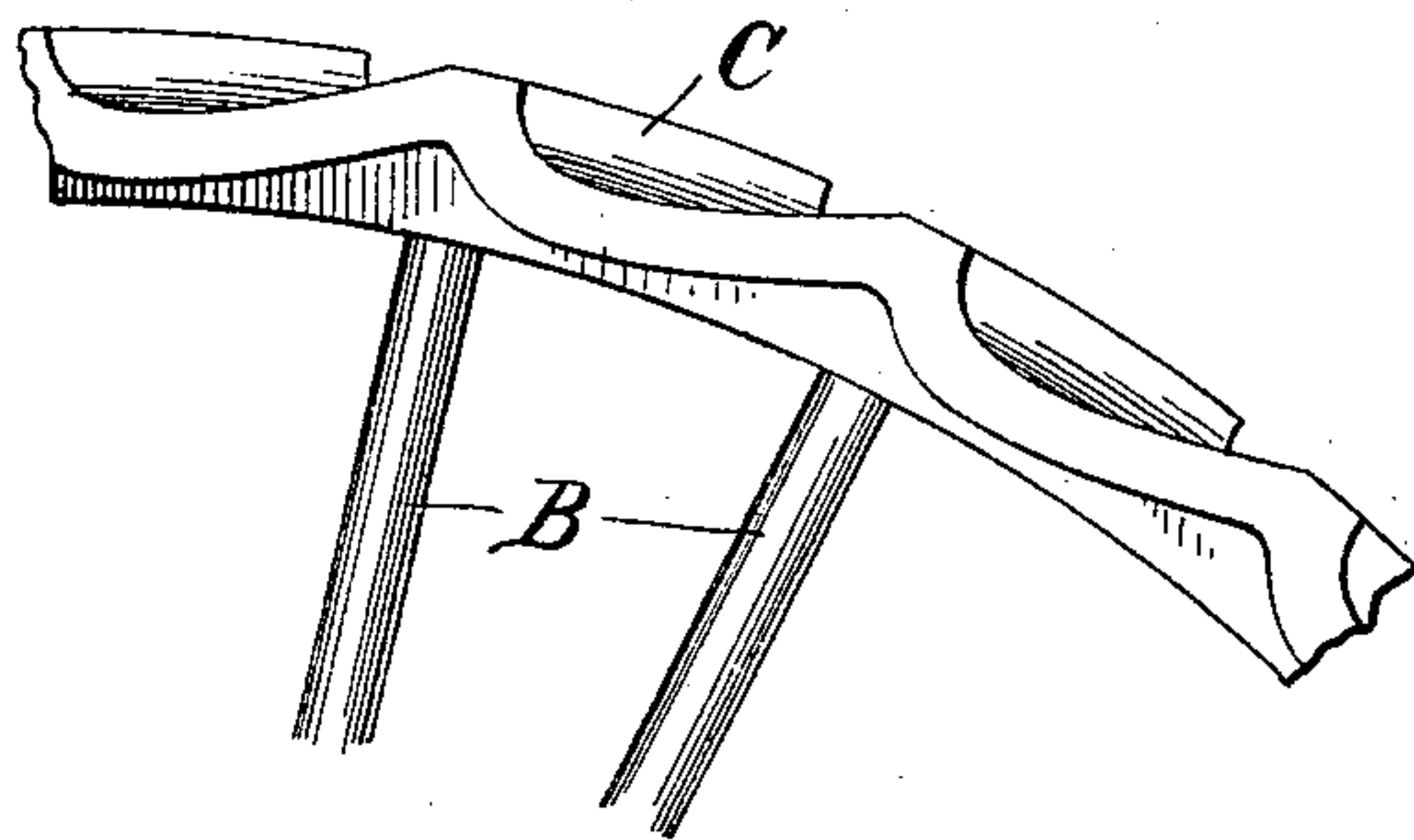


Fig. 3.



Fig. 4.

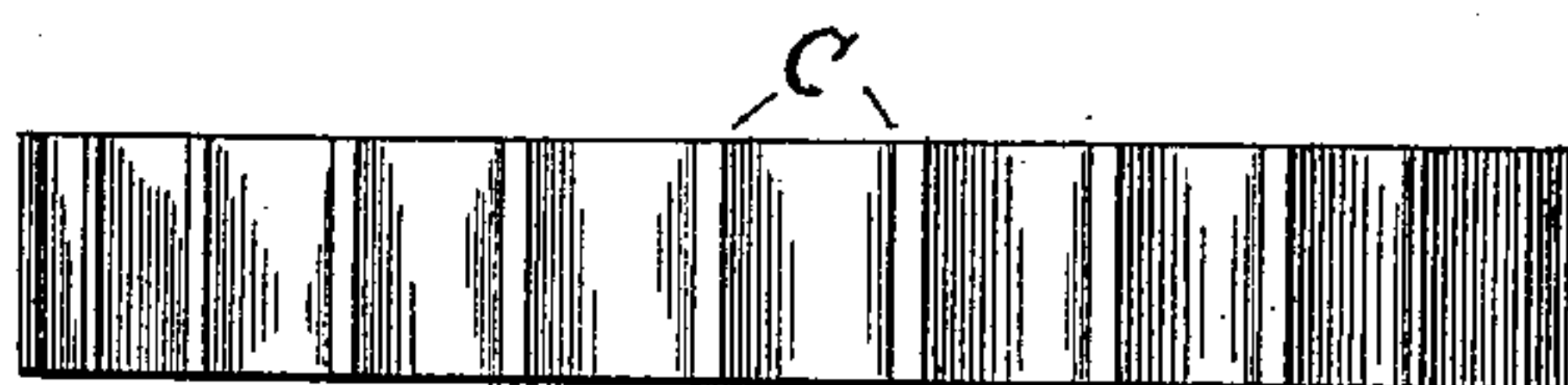
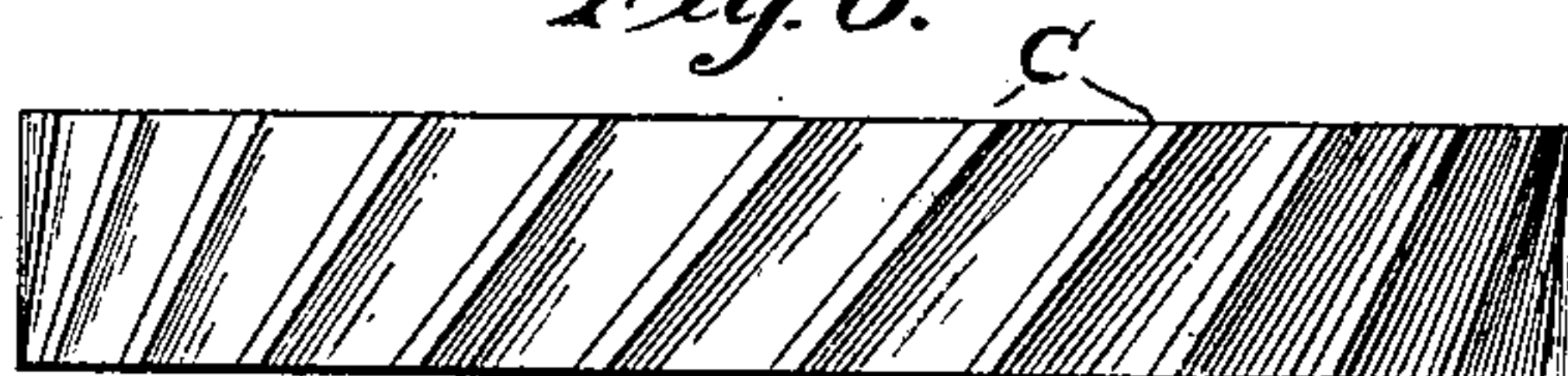


Fig. 5.

Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE F. CONNER, OF PORT HURON, MICHIGAN.

TRACTION-WHEEL.

SPECIFICATION forming part of Letters Patent No. 659,650, dated October 16, 1900.

Application filed March 1, 1900. Serial No. 6,968. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. CONNER, a citizen of the United States, residing at Port Huron, in the county of St. Clair and State of Michigan, have invented certain new and useful Improvements in Traction-Wheels, of which the following is a specification.

This invention relates to an improvement in traction-wheels; and it is embodied in the construction and arrangement of parts hereinafter described, and defined in the claims.

The invention relates more particularly to the gripping-surface of the periphery of the wheel, and is designed to form and provide a surface which will take a positive hold on the ground and increase largely the traction, while at the same time avoiding the objection of filling in and clogging between the projecting portions of the periphery.

I have shown in the accompanying drawings an embodiment of the invention, but desire it understood that the form illustrated is susceptible of slight modifications and changes without departing from the nature and principle of the invention.

In the drawings, Figure 1 is a side elevation of a portion of a wheel embodying the invention. Fig. 2 is a face view of the periphery. Fig. 3 is a detail enlarged edge view, and Figs. 4, 5, and 6 are views of modifications.

In the drawings, A represents a hub, and B the suspension-spokes, of a well-known type.

My invention relates wholly to the particular construction of the rim, which is formed, conveniently, of cast plates or parts or integral pieces, as occasion may require. The outer face of the rim is formed with a series of forwardly-extending triangular ribs C, the apex of which is in the central plane of the rim. These ribs are squared on their outer faces, while the wheel immediately below and in front is curved slightly forward and downward, from which point the face of the wheel is curved at a greater radius or inclined forward and terminates in the upper edge of the adjacent flange, as clearly shown in Fig. 3, thereby forming what may be termed a "gripping-surface" or "pocket," having substantially a right-angle face with a differentially-curved base. The contour of the face of the wheel between the flanges is the same

transversely across, thus forming obliquely-arranged channels or pockets between the flanges. The under face of the wheel is conveniently shaped the reverse of the upper face, although it is evident that such is immaterial except where lightness is desired.

In operation, the wheel traveling in the direction of the arrow shown in Fig. 1, the annular gripping-flanges take into the surface over which the wheel is traveling, and owing to the abrupt and peculiar curvature of the wheel-wall immediately in front a positive and extended gripping-surface is formed, and as the wheel progresses, being largely at that point first, it will have a tendency to crowd and edge the dirt outwardly and transversely and backward over the gradually-sloping faces until it is discharged from the wheel. This has been found in practice to be practically a non-clogging periphery for a traction-wheel, while at the same time it provides a large and positive penetrating area or surface of the flange or projecting portion. The particular cross-section of the flanges with the curvature of the periphery between I believe to be the features which render the wheel practically non-clogging.

In Figs. 4 and 5 a form having right-angle ribs is shown. In this form the curved intermediate surface is regular.

In Fig. 6 I have shown a construction wherein the ribs are oblique from end to end.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a traction-wheel, the combination with the hub and supporting member or spokes, of a rim having its outer face formed with a series of forwardly-inclined triangular ribs the apex of which is located centrally of the rim, and inwardly-curved faces between the ribs the curvature of which is increased from the rear faces of the ribs to the front faces of the companion rib, substantially as described.

2. In a traction-wheel, the combination with the hub and supporting member or spokes, of a rim having its outer face formed with a series of ribs, and inwardly-curved faces between the ribs the curvature of which is increased from the rear faces of the ribs to the front faces of the companion rib, substantially as described.

3. In a traction-wheel, the combination with
the hub and supporting member or spokes, of
a rim having its outer face formed with a se-
ries of ribs, and inwardly-curved faces be-
5 tween said ribs, concaved with reference to
the outer periphery of said wheel.

4. In a traction-wheel, the combination with
the hub and supporting member or spokes, of
a rim having its outer face formed with a se-
10 ries of ribs, and inwardly-curved faces be-
tween said ribs, concaved with reference to

the outer periphery of said wheel, and hav-
ing the inner side of said rim shaped with curv-
ing surfaces parallel to the configurations of
the curved faces between the ribs on the outer 15
surface of said rim.

In testimony whereof I have affixed my
signature in presence of two witnesses.

GEORGE F. CONNER.

Witnesses:

S. A. WOOD,
H. B. HOYT.