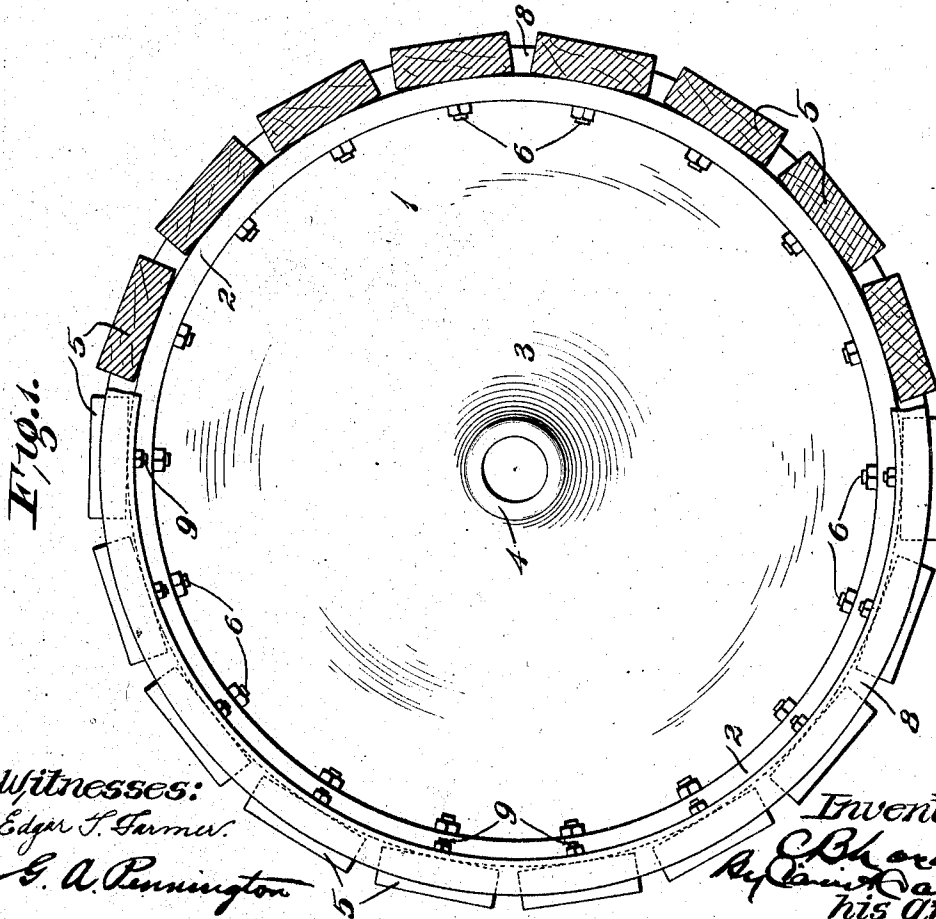
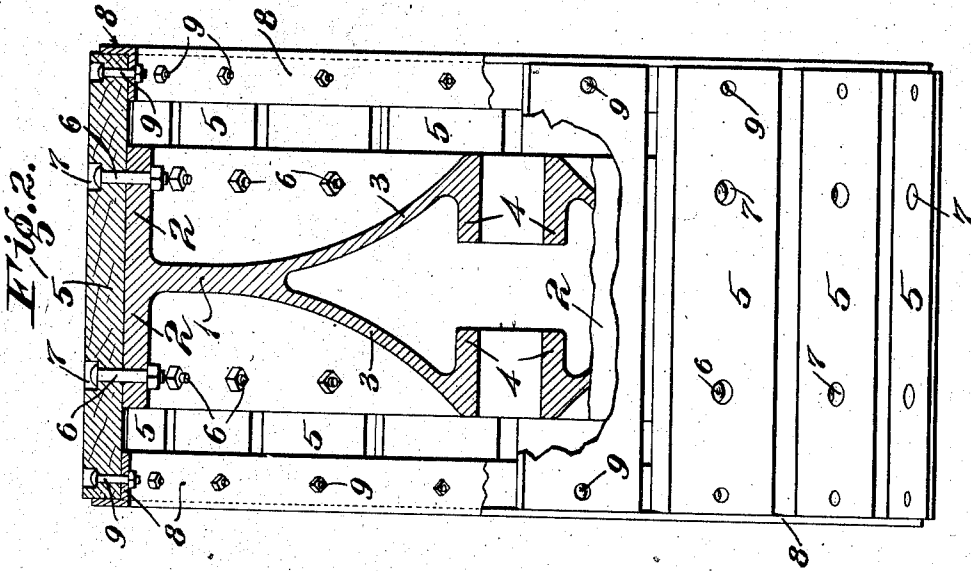


C. B. LORD.
TRACTION WHEEL.

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1,019,165.

Patented Mar. 5, 1912.



Witnesses:

Edgar T. Garner.

G. A. Pennington

Inventor:

C. B. Lord,
his Attys.

UNITED STATES PATENT OFFICE.

CHESTER B. LORD, OF ST. LOUIS, MISSOURI.

TRACTION-WHEEL.

1,019,165.

Specification of Letters Patent.

Patented Mar. 5, 1912.

Application filed February 27, 1911. Serial No. 611,140.

To all whom it may concern:

Be it known that I, CHESTER B. LORD, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Traction-Wheels, of which the following is a specification.

This invention relates to traction wheels and it has for its principal objects to secure considerable tractive force without tearing up or marring the surface of roads, to produce a wheel which will travel easily over soft or muddy ground, and to attain certain other advantages which will hereinafter more fully appear.

The invention consists in the parts and in the arrangements and combinations of parts hereinafter described and claimed.

In the accompanying drawing which forms part of this specification and wherein like symbols refer to like parts wherever they occur,—Figure 1 is an end view partly in elevation and partly in section; and Fig. 2 is a side view partly in elevation and partly in section.

The wheel comprises a middle member, preferably rigid and formed integrally, and having a web 1 and an annular flange portion 2 distributed equally on opposite sides of said web 1. The central portion of the web or body 1 is raised or tapered, as at 3, on its opposite sides adjacent to the respective hub portions 4.

Extending transversely across the circumferential face of the flange portion 2 are a series of wooden bars or cleats 5. These cleats or members 5 have flattened outer faces so that the wheel is provided with a polygonal tread surface. The cleats are spaced apart equidistant and preferably bolted to the flange portion 2 by bolts 6 whose heads are countersunk into depressions or counterbores 7 in the outer faces of the respective cleats. Preferably, the cleats 5 are extended beyond the edges of the flange 2; and secured to the end portions of the cleats are metal rings 8 which are preferably rigid and angular in cross section as shown. These rings 8 are bolted to the inner faces of the end portions of the respective cleats 5 by bolts 9 whose heads are preferably countersunk into the cleats in a manner similar to the bolts 6. By arranging the cleats 5 so as to change the tread of the wheel from round to polygonal shape considerable tractive force is ob-

tained without the use of lugs, ribs and other projections usually provided on traction wheels and objectionable on account of their destructive effect on the roadway. Also, by the present construction the wheel will travel without slipping on muddy and softened ground; and, owing to the spaced arrangement of the cleats, the corners thereof cling to the surface of the roadway or ground without any material destructive effect. So, too, the arrangement of the hub portion of the wheel is such that any mud or dirt that is pressed in between the cleats will not find lodgment, but will be deflected off the surface owing to its peculiar shape. By the arrangement of the outside rings 8, the projecting ends of the cleats are fastened independently of the flange portion 2, and the strains are distributed equally on all the cleats. This arrangement also permits of using a standard intermediate supporting portion of a common width and securing thereon bars or cleats of various lengths.

Obviously, the wheel admits of considerable modification without departing from my invention. Therefore, I do not wish to be limited to the specific construction and arrangement shown.

What I claim is:

1. A traction wheel comprising a rigid metal rim, a multiplicity of cleats secured transversely on the circumferential face of said metal rim, said cleats being spaced an equal distance apart and their end portions being extended beyond the edges of said metal rim, and rings connecting the end portions of said cleats, said rings being spaced from said metal rim.

2. A traction wheel comprising a supporting ring, a multiplicity of flat wooden cleats rigidly secured to the circumferential face on said supporting ring so as to present a polygonal tread face, said cleats being spaced equidistant and extending on opposite sides of said supporting ring, and rigid ring members connecting the end portions of said cleats, said ring members being spaced from said supporting ring.

3. A traction wheel comprising an annular middle supporting member, a multiplicity of cleats secured transversely across the peripheral face of said annular middle supporting member and extending on opposite sides of the latter, and L-shape annular members whose horizontal flanges extend

inwardly and are secured to the adjacent end portions of said cleats and whose vertical flanges extend outwardly and abut the ends of the cleats, said L-shaped annular members being spaced from said annular middle supporting member.

4. A wheel comprising a rigid supporting member having a hub portion and a substantially cylindrical rim portion, a multiplicity of cleats disposed transversely across the circumferential face of said rim

and projecting beyond the edge thereof a considerable relative distance, and a rigid annular floating member separated from said rigid supporting member and secured to the projecting end portions of said cleats. 15

Signed at St. Louis, Missouri, this 20th day of February, 1911.

CHESTER B. LORD.

Witnesses:

M. A. CULLEN,
W. S. THOMAS.