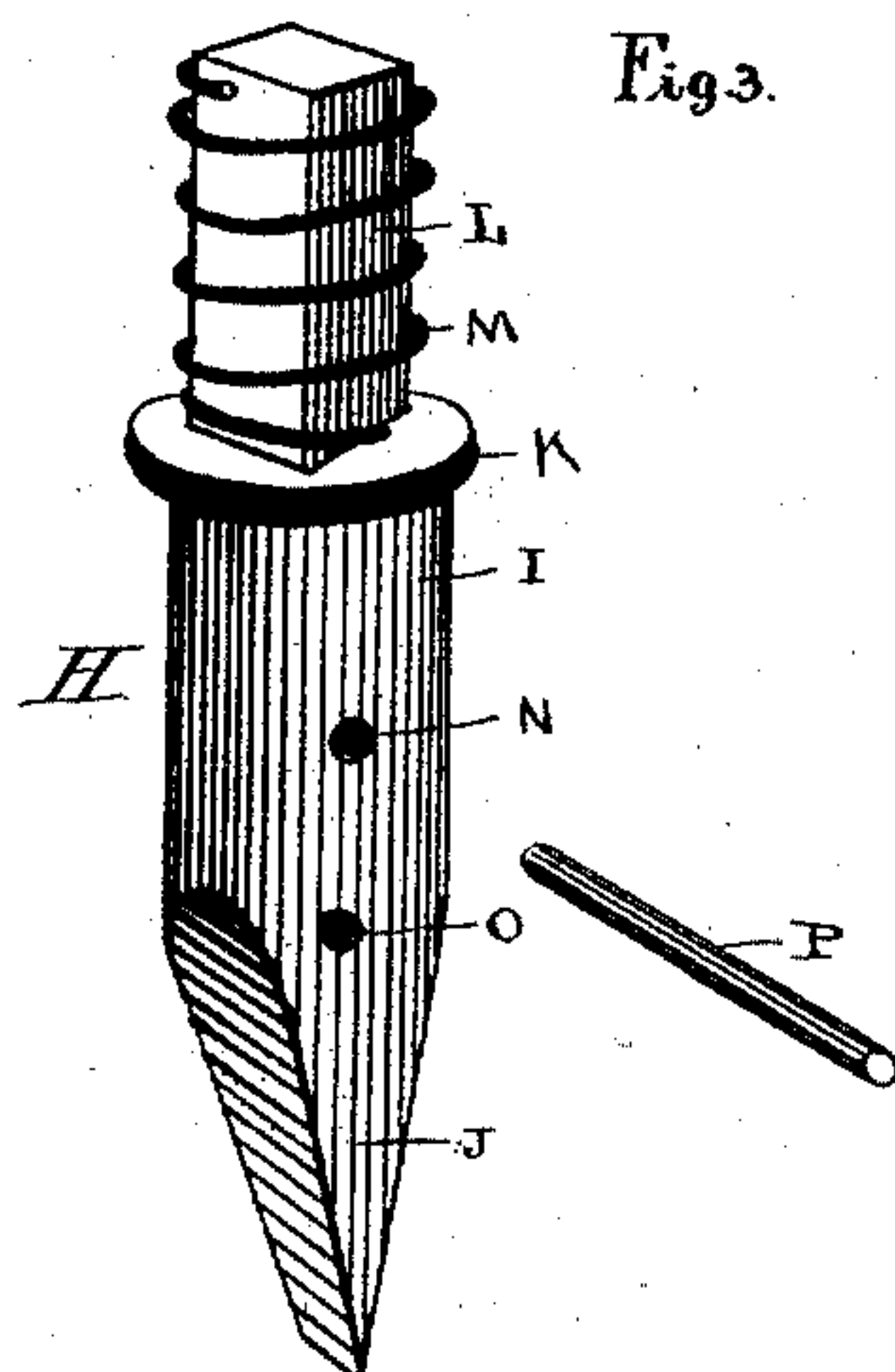
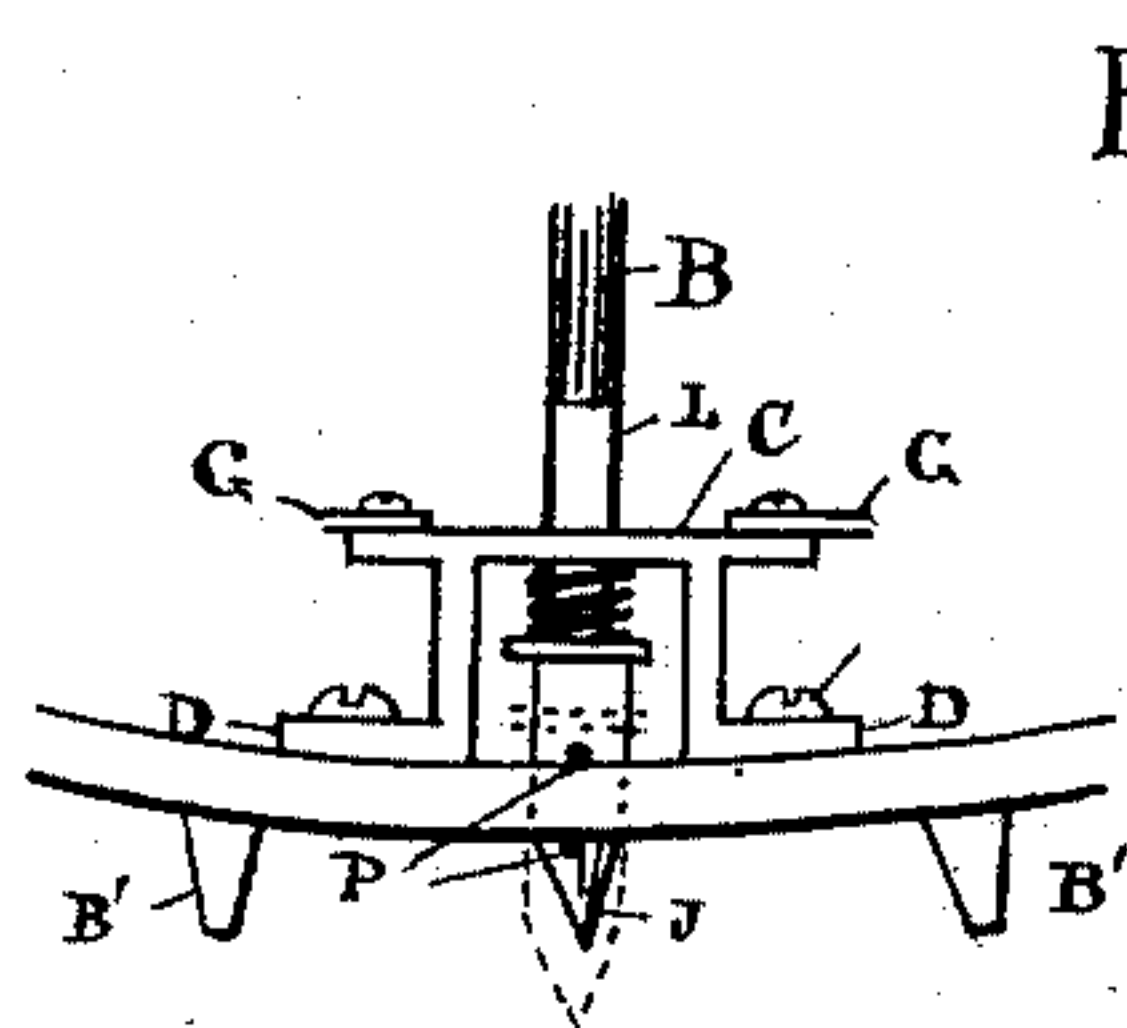
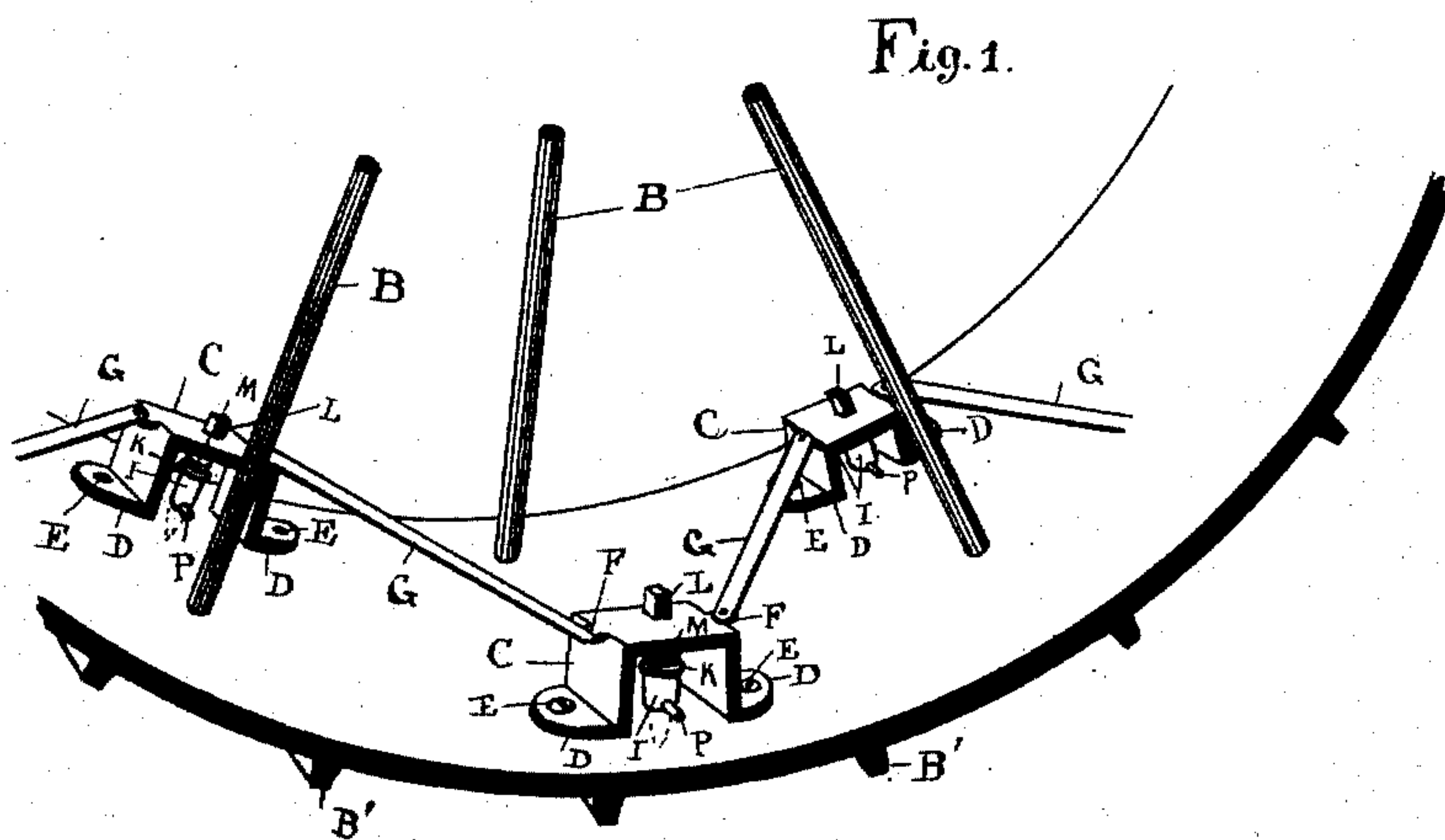


(No Model.)

H. L. HOLT.
TRACTION WHEEL.

No. 483,220.

Patented Sept. 27, 1892.



Witnesses

A. Keithley
C. Johnson

Inventor
Herbert L. Holt.

By
L. M. Thier
Att'y.

UNITED STATES PATENT OFFICE.

HERBERT L. HOLT, OF TRIVOLI, ILLINOIS.

TRACTION-WHEEL.

SPECIFICATION forming part of Letters Patent No. 483,220, dated September 27, 1892.

Application filed March 31, 1892. Serial No. 427,176. (No model.)

To all whom it may concern:

Be it known that I, HERBERT L. HOLT, a citizen of the United States, residing at Trivoli, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Traction-Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in traction-wheels.

The object of the invention is to provide a wheel with a number of spurs, which are ranged around the inner face of the wheel and which pass through the face of said wheel into the ground when in use. Ordinarily wheels of this character are provided with holes in their faces, through which may pass spurs which are held in place by burrs or the like; but it is very laborious, to say nothing of inconvenience and time wasted, to first clean the dirt out of the holes and then to insert into each of the holes a spur; and it is my object, therefore, to provide a spur which by a simple arrangement may be left on the wheel permanently, and in passing over dry hard roads the spurs need not project more than a half-inch beyond the face of the wheel, or they may be flush with the stationary angling lugs generally used. If when ascending a hill or traversing a muddy road a greater grip is needed on the ground, the spurs may be let out by a simple movement to any length desired to accomplish the purpose for which they were intended.

In the drawings hereto annexed, Figure 1 represents a perspective view of a portion of a traction-wheel, showing my improvement attached thereto. Fig. 2 is a side view of a portion of a wheel, showing more plainly my invention. Fig. 3 is a perspective view of one of the spurs.

A represents the rim of the wheel, and B B represent the spokes. Secured to the wheel-face opposite each of the spokes are the inverted-U-shaped brackets C. The spokes are arranged in a zigzag course around the inner

face of the wheel, as ordinarily, and as the brackets C may or may not be placed opposite the spokes in this instance they are also placed in a similar position, but being opposite in position to that of the said spokes.

The ears D D on the brackets C serve to secure said brackets in place by the screws or bolts E, and to the upper portion of the said brackets are cast the ears F, to which are secured by any good means the rods G to form a brace between the brackets of the series. A spur H is also shown separately in Fig. 3, and may be made of any desired shape. The one which I have adopted, however, is as follows: One part of the spur is made round, as shown at I, and the lower end of which is formed into a chisel-point J, and the upper end bears a shoulder or flange K, and above this the spur is made square, as shown at L, and this squared end passes through a hole of the same shape on the top of the bracket, and this prevents the spur from turning round while in use. A spring M is placed over the squared end L and bears against the under side of the arched bracket G and against the flange or shoulder K. In the lower rounded end of the spur is made an upper and a lower hole N and O, respectively. A pin is supplied, which is inserted in one of the holes, according to the position the spur may occupy.

The operation of the device is as follows: As before stated, the spurs may be either flush with the angling lugs B', or may be as much longer than that as desired, and when the spur is at its shortest length outside the wheel-face the pin P is placed in the upper hole N of the spur and presses against the inner face of the wheel by reason of the pressure exerted by the spring. When the spur is to be let out longer to its full length, the pin P is withdrawn from its position, for the purposes already described, and the spring M forces the spur farther out, and this brings the upper hole N outside the face of the wheel, and the pin P is inserted again in that hole. This may be understood by reference to Fig. 2, which shows change in position in dotted lines. A pin may be inserted in the lower

hole O when the spur is occupying its shortest position. A single or double row of these spurs may be placed on the wheel, if desired.

I claim—

- 5 In a traction-wheel, one or more rows of spurs H, of the form described and shown and arranged on the inner face of said wheel in the manner set forth, said spurs being provided with the springs and adjustable pins P,

of the construction and arranged in the manner and for the purposes set forth and described.

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

HERBERT L. HOLT.

Witnesses:

JOHN HALL,

JESSE COLLINGE.