

(No Model.)

J. LIND.
VEHICLE WHEEL.

No. 566,780.

Patented Sept. 1, 1896.

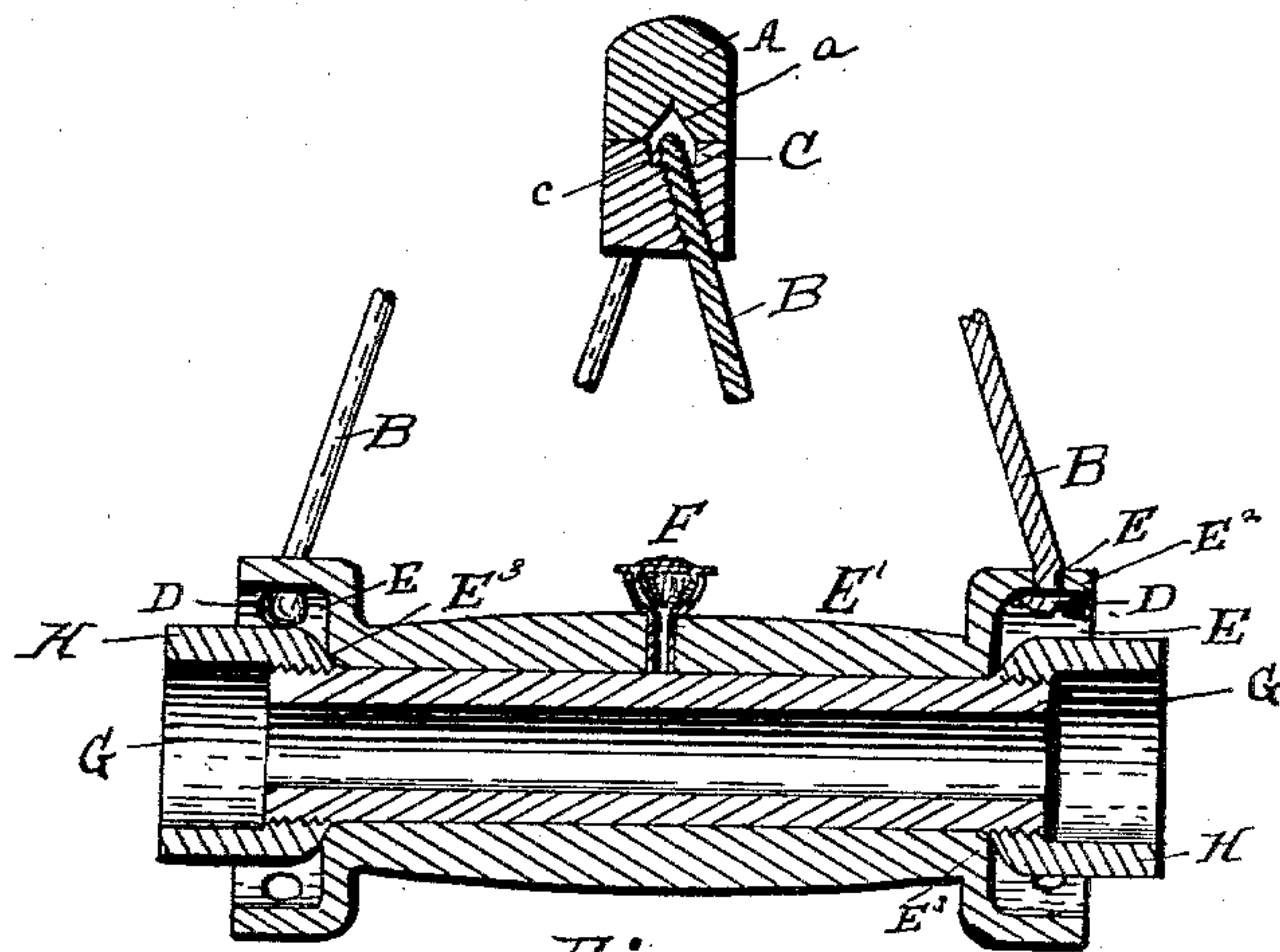


Fig. 1.

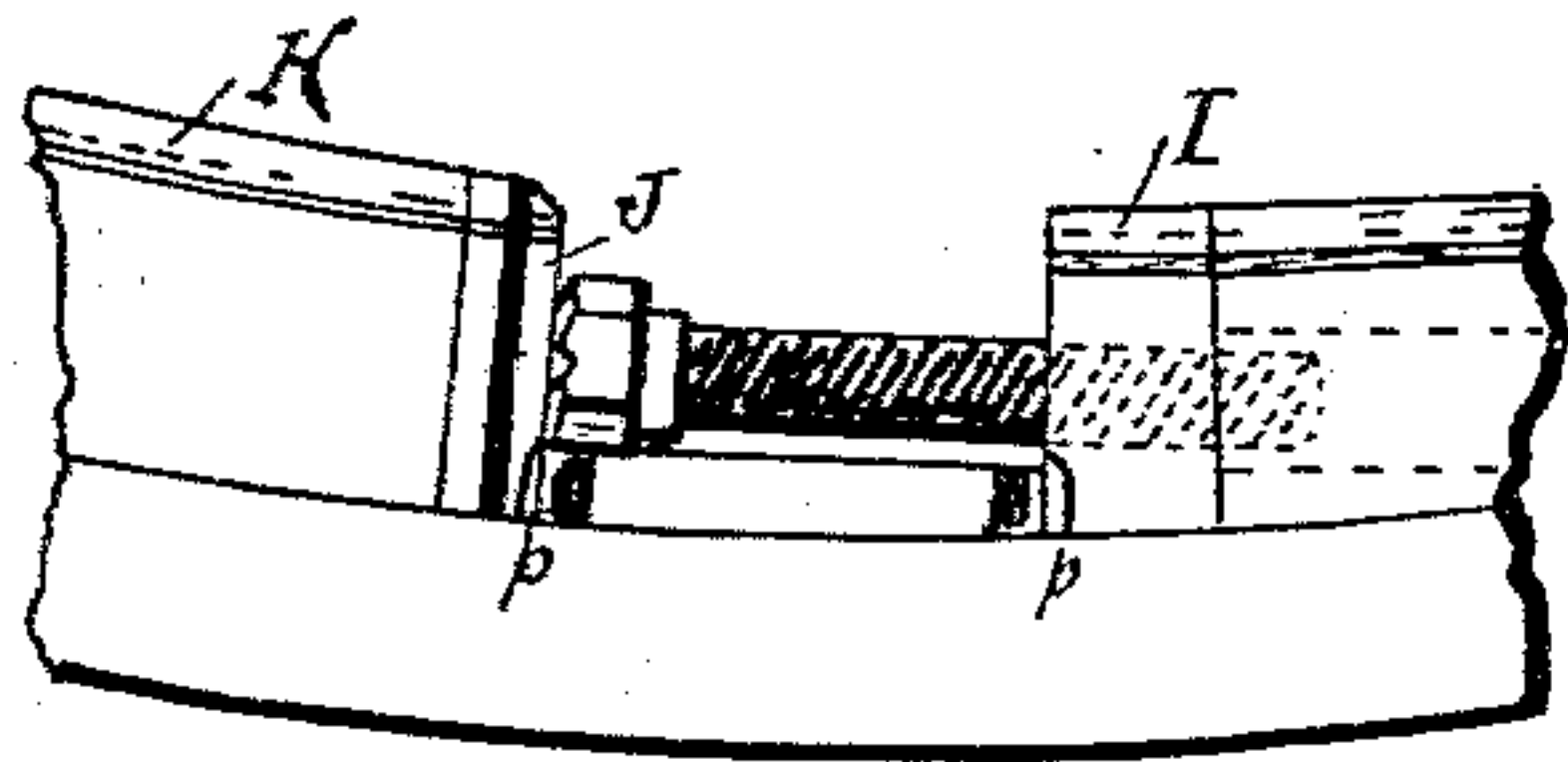


Fig. 2.

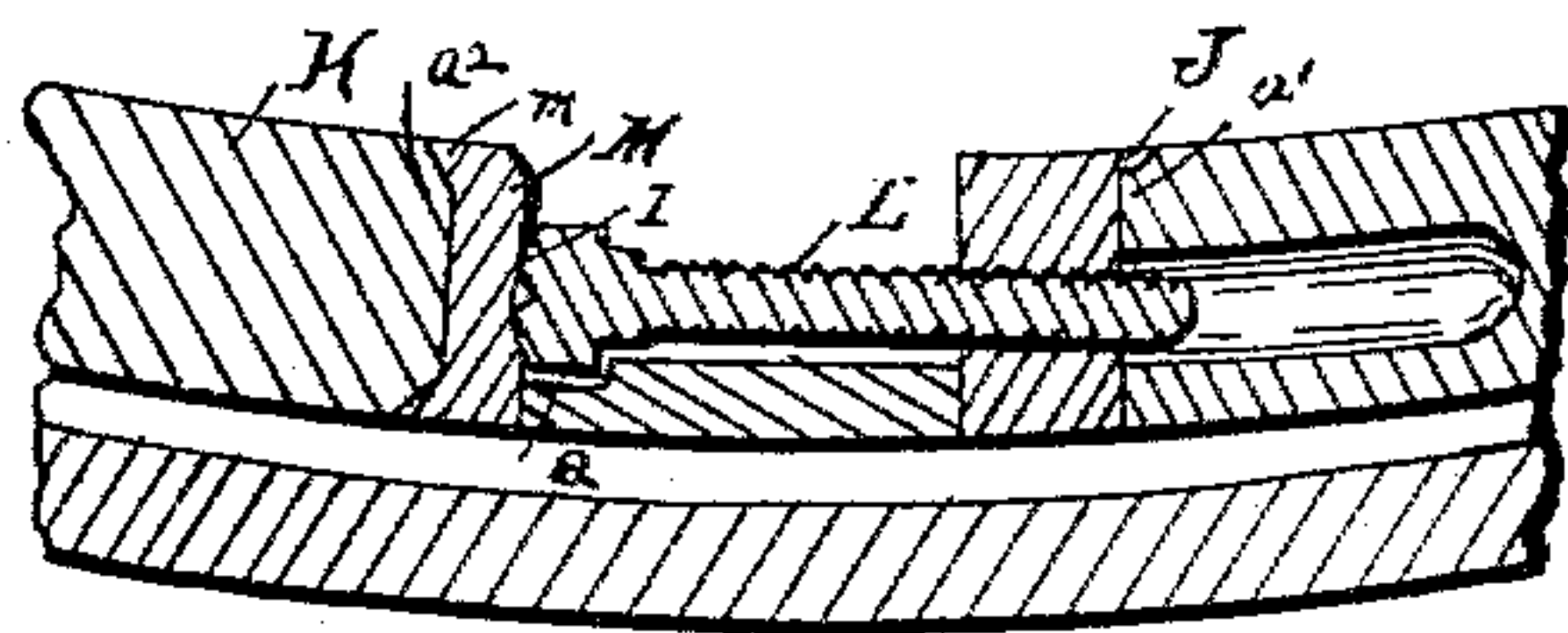


Fig. 3.

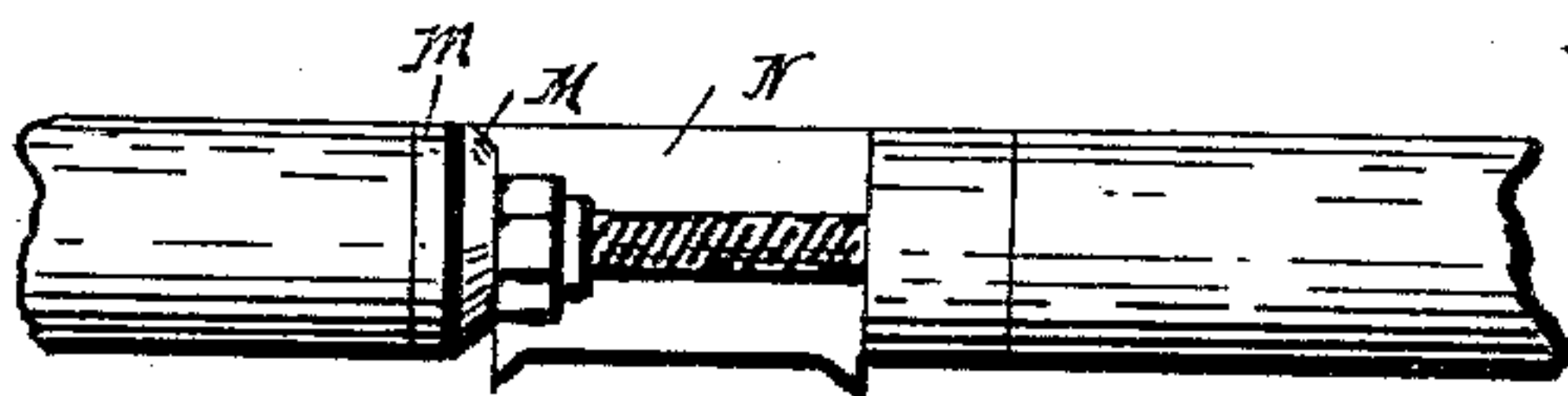


Fig. 4.



Fig. 5.



Fig. 11.

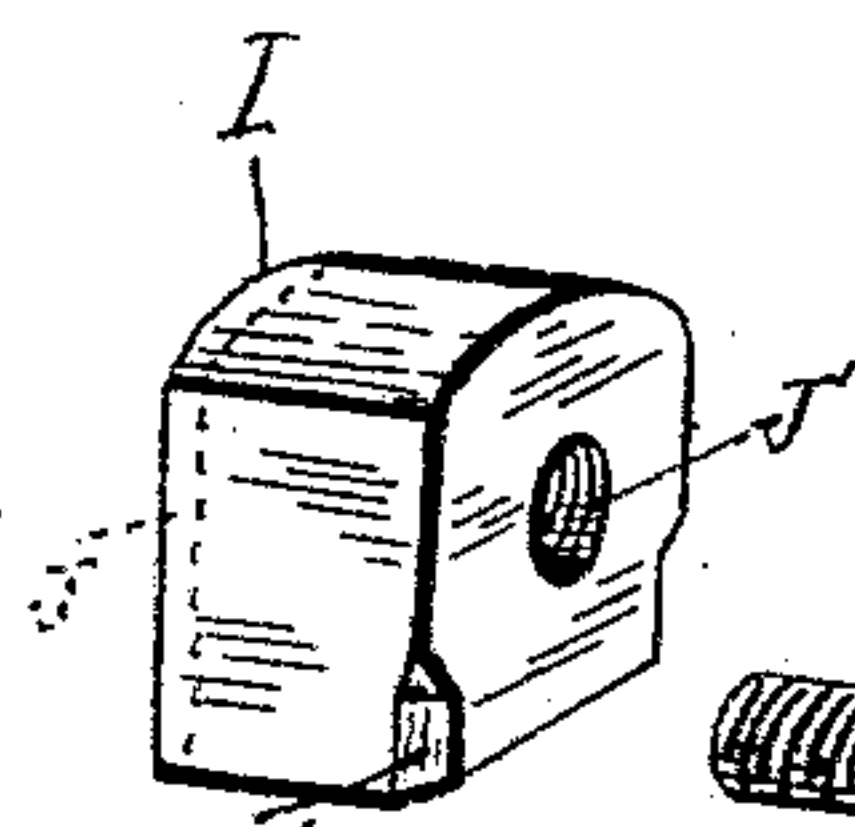


Fig. 6.

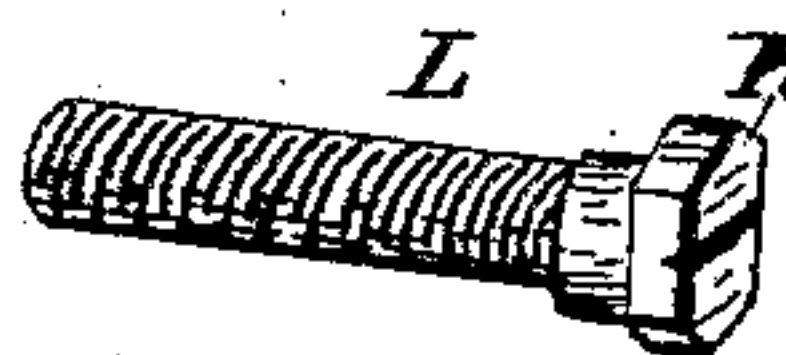


Fig. 7.

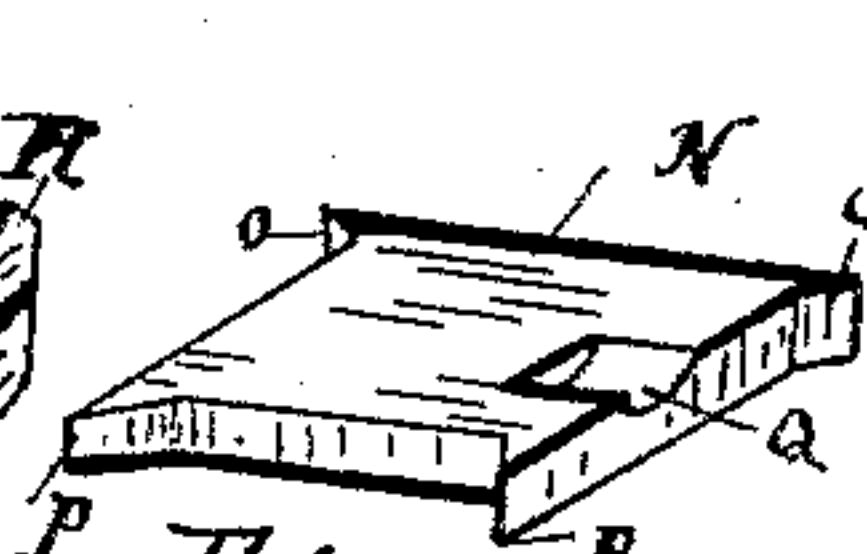


Fig. 8.

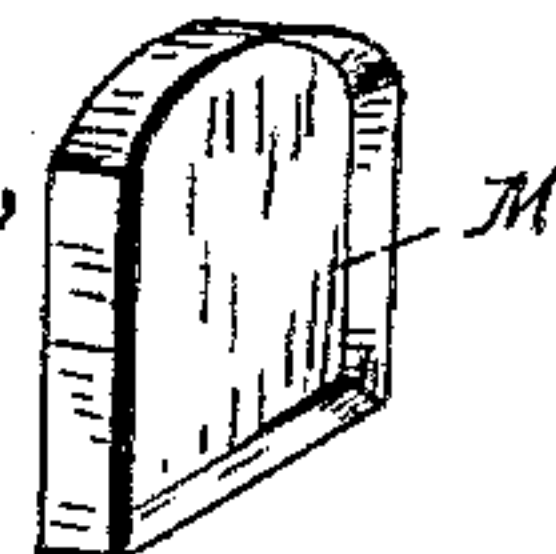


Fig. 9.

Witnesses:—

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UNITED STATES PATENT OFFICE.

JOHN LIND, OF ASTORIA, ILLINOIS.

VEHICLE-WHEEL.

SPECIFICATION forming part of Letters Patent No. 566,780, dated September 1, 1896.

Application filed January 8, 1896. Serial No. 574,763. (No model.)

To all whom it may concern:

Be it known that I, JOHN LIND, a citizen of the United States, residing at Astoria, in the county of Fulton and State of Illinois, have invented certain new and useful Improvements in Vehicle-Wheels, of which the following is so full, clear, and exact a description as will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1 is a section taken through the box and felly, the spokes being broken away. Fig. 2 is a side elevation of my tightening device. Fig. 3 is a section of the same. Fig. 4 is a top plan view of the same. Fig. 5 is a section of a washer. Fig. 6 is a perspective view of the stationary tap. Fig. 7 is a perspective view of the tightening-screw. Fig. 8 is a perspective of the wedge. Fig. 9 is a perspective view of the washer. Fig. 10 is a top plan view of the washer. Fig. 11 is a section of a washer.

The object of my invention is to provide an inexpensive, practical, and durable wheel for buggies, bicycles, and the like, by the use of which the tires may be tightened at any time by any person not specially skilled in the art without the necessity of taking the wheel to the blacksmith-shop or repair-shop, saving both time and expense by doing the work at home or at any time and place.

In the accompanying drawings, A designates the tire, which is grooved at *a* to allow the upper ends of the spokes B to extend slightly beyond the outer periphery of the felly.

C designates a piece of metal adapted to fit in the groove *c* in the outside of the felly, and it is screw-threaded to receive the screw-threaded nut on the spoke B. The opposite end of the spoke B may be provided with a head D to prevent the spokes slipping out of the hole E' in the casing of the box E, through which the spoke extends, as shown in Fig. 1.

F designates the oil-cup.

G designates the boxing of the wheel, upon either end of which is screwed a thimble H. The box E is provided with projecting flanges E², and is formed with a shoulder E³, against which abuts the inner ends of the thimbles

H H, to hold the boxing in position within the wheel-box casing.

I designates a stationary tap, which is provided with a projecting flange J, as shown in Fig. 3 and in dotted lines in Fig. 6, and it is adapted to fit over the beveled end of the felly K, which bevel is shown at *a'* in Fig. 3.

L designates a tightening-screw adapted to be screwed into the screw-threaded hole J' in the stationary tap I. The head of the screw L projects slightly into the recess *l* in the washer M, which is provided with a flange *m*, which embraces the opposite end of the felly K, which is tapered at *a*², as shown in section in Fig. 3.

N designates a wedge provided with projecting lips O O at one end, while the opposite end is provided with lips P P, adapted to be upset into the recesses *p p* in the nut I and washer M, respectively. The wedge N is also provided with a depression Q, into which turns the head R of the tightening-screw L. Any number of washers M may be provided and placed one over the other, as shown in Fig. 4, when the felly is sufficiently worn to require more washers, as will be the case when the screw L is not of sufficient length to fill the distance between the stationary tap and the washer which embraces the end of the felly opposite the end which is embraced by the stationary tap I. When it is desired to tighten the felly, the screw L is unscrewed by means of a small wrench, and when the desired degree of tension is secured a wedge N is put in position, as shown in Figs. 2 and 4, and the ends or lips P P may be upset or hammered out to make them like the lips O O on the opposite end of the wedge, which will hold the wedge in position. Wedges of varying widths may be kept constantly on hand, so that when one becomes too narrow it may be removed and a wider one put in its place.

Having thus fully described my invention, what I believe to be new, and desire to secure by Letters Patent of the United States, is—

1. A wheel of the character described, comprising a boxing having projecting flanges provided with perforations and a boxing provided with thimbles secured within the casing and spokes and a tightening device, consisting of metallic pieces adapted to embrace the

opposite ends of the parted felly and a screw for filling the space between the sections on the ends of the felly and a wedge having a depression Q, adapted to be secured beneath the screw, substantially as described.

2. A wheel of the character described comprising a boxing having projecting flanges provided with perforations and a boxing provided with thimbles secured within the casing and spokes and a tightening device, consisting of metallic pieces adapted to embrace the opposite ends of the parted felly and a screw for filling the space between the sections on the ends of the felly and a wedge provided with lips, and a depression Q, adapted to be secured beneath the screw, substantially as described.

3. In a tightening device for wheels, the combination of a tap and washer, adapted to fit between the parted felly, embracing it at opposite ends; with a device for forcing the washer and tap apart and a wedge adapted to fit between the washer and the tap and provided with permanent lips O, and projecting lips P at the opposite end which are adapted to be upset, substantially as described.

4. In a tightening device for wheels the

combination of a tap and washer, provided with recesses *p, p*, adapted to fit between the parted felly, embracing it at opposite ends; with a device for forcing the washer and tap apart and a wedge adapted to fit between the washer and tap and provided with permanent lips O and projecting lips P, at the opposite end which are adapted to be upset.

5. A tap provided with a screw-threaded hole and a flange at its rear end adapted to embrace the end of the felly and a washer provided with a depression L at one side and a flange M at the opposite side; in combination with a tightening-screw L adapted to screw into the stationary tap and which is also adapted to fit within the recess L in the washer and a wedge N provided with a depression Q adapted to fit between the tap and the washer substantially as described.

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

JOHN LIND.

Witnesses:

H. E. McLAREN,

WALTER STROSNIDER.