W. L. & J. M. HACKNEY.

LUG FASTENER FOR TRACTION WHEELS.

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1,165,403. Patented Dec. 28, 1915.

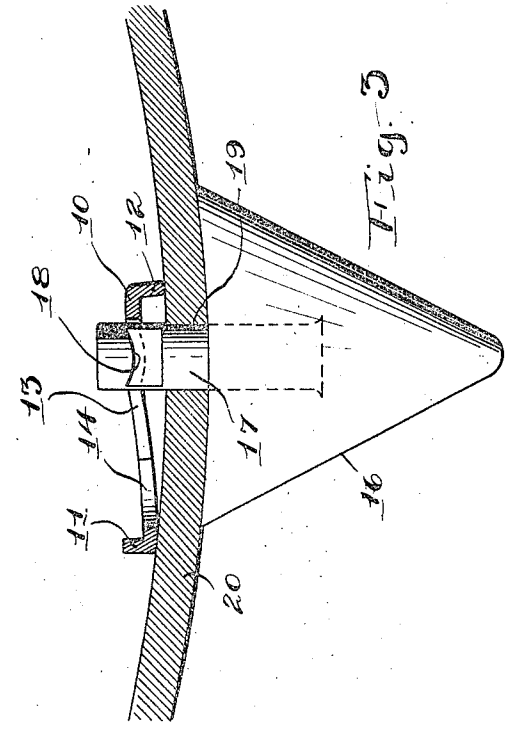


Fig. 1

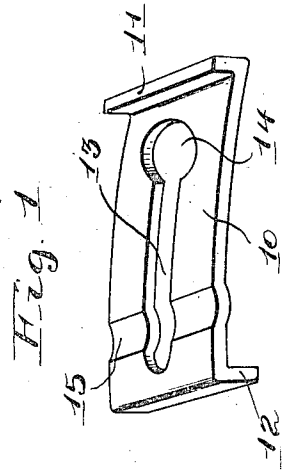
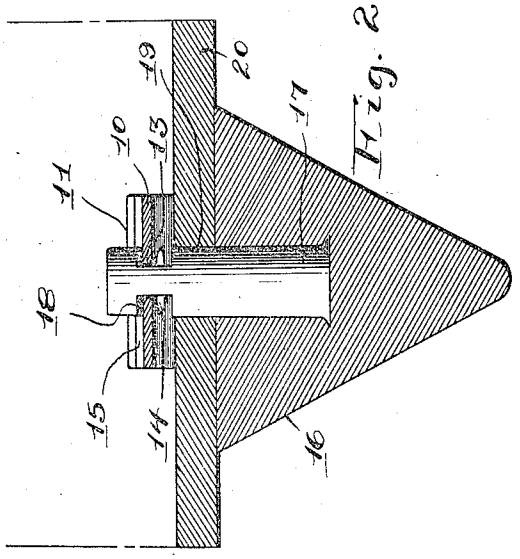


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM L. HACKNEY AND JOSEPH M. HACKNEY, OF ST. PAUL, MINNESOTA.

LUG-FASTENER FOR TRACTION-WHEELS.

1,165,403. Specification of Letters Patent. Patented Dec. 28, 1915.

Application filed March 5, 1913. Serial No. 752,125. Renewed May 24, 1915. Serial No. 30,215.

To all whom it may concern:

Be it known that we, WILLIAM L. HACKNEY and JOSEPH M. HACKNEY, citizens of the United States, residing at St. Paul, in Ramsey county, in the State of Minnesota, have invented new and useful Improvements in Lug-Fasteners for Traction-Wheels, of which the following is a specification.

Our invention relates to improvements in fastening devices particularly, though not exclusively, adapted for traction wheel lugs. Its object is to provide a cheap, durable and efficient clip adapted to be quickly and easily applied to secure a lug to the rim of a traction wheel, or removed to permit the detachment of said lug therefrom.

In the drawings, Figure 1 is a detail perspective view of our improved fastening clip; Fig. 2 is a transverse sectional view of the same illustrated in position securing a lug to the rim of a traction wheel, and Fig. 3 is a central longitudinal sectional view of the same.

Referring to the drawings, we have used the reference numeral 10 to indicate the spring metal clip which has an upturned flange 11 at its toe and a downturned flange 12 at its heel. The clip is also formed with a centrally arranged key-hole opening comprising a slot 13 extending longitudinally and terminating in the enlarged perforation 14 near its toe. A transverse depression or seat 15 is formed in the clip adjacent to the heel thereof and said clip is curved or inclined upward from its toe to its heel. The lug 16, used with this clip, has an anchor or connecting bolt 17, formed with shoulders 18 and is applied to a traction wheel by inserting the bolt 17 through a perforation 19 in the rim 20 thereof. In securing the lug in such position, the clip is placed upon the inner periphery of the rim in position with the bolt 17 protruding through the perforation 14. The clip is moved by hand, the bolt 17 passing through the slot 13, until the inclined or upwardly curved portions of the clip adjacent to said slot engage beneath the shoulders of the bolt. The flange 12, at the heel of this resilient clip, is then struck to drive the clip under the shoulders 18 of the bolt 17 to a position where said shoulders rest in the seat 15 and lock said clip. To detach the clip the flange 11, at its toe, is struck to remove the seat 15 from engagement with the shoulders 18 of the bolt 17 and to shift the clip and register the perforation 14 with the bolt, thus permitting the removal of the clip therefrom.

Having described our invention, what we claim as new and desire to protect by Letters Patent, is:

1. In a device of the class described, a resilient clip formed with a longitudinal opening therein and with a depression, transverse to said opening, extending across one face of said clip near one end thereof, a bolt adapted to be received in said opening and shoulders on said bolt arranged to fit into said depression and secure the clip with respect to said bolt.

2. In a device of the class described, a resilient clip formed with a key-hole opening extending longitudinally thereof, a flange on each end of the clip turned in opposite directions therefrom, said clip being formed with a depression extending transversely across the contracted end of said opening, on the face of the clip opposite the adjacent flange.

3. In a device of the class described, the combination with a wheel having a perforated rim, a lug having an anchor bolt formed with shoulders thereon and adapted to project through said perforation, of a resilient clip formed with a longitudinal key-hole opening therein and with a depression transverse to said opening, extending across one face of said clip near one end thereof, a flange on said end turned away from the face containing said depression, said clip being adapted to be interposed and forced between the inner periphery of said rim and the shoulders of the bolt to engage said shoulders in said transverse depression and lock the lug upon the rim of the wheel.

4. In a device of the class described, the combination with a wheel having a perforated rim, a lug having an anchor bolt formed with shoulders thereon and adapted to project through said perforation, of a resilient clip formed with a transverse depression near one end thereof and with a longitudinal key-hole opening, a flange at each end of said clip turned in opposite directions therefrom, said clip being adapted to be interposed and forced between the inner periphery of said rim and the shoulders of the bolt to engage said shoulders in said transverse depression and lock the lug upon the rim of the wheel.

5. In a device of the class described, a curved resilient clip formed with a longitu-

dinal opening therein and with a depression in one face thereof transverse to said opening, a bolt adapted to be received in said opening and shoulders on said bolt arranged to fit into said depression and secure the clip with respect to said bolt.

In testimony whereof, we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM L. HACKNEY.
JOSEPH M. HACKNEY.

Witnesses:
J. C. CALDWELL,
R. K. MURPHY.