No. 875,147. PATENTED DEC. 31, 1907.

J. H. CAMERON.

TIRE TIGHTENER.

APPLICATION FILED DEC. 6, 1906.

FIG. 1

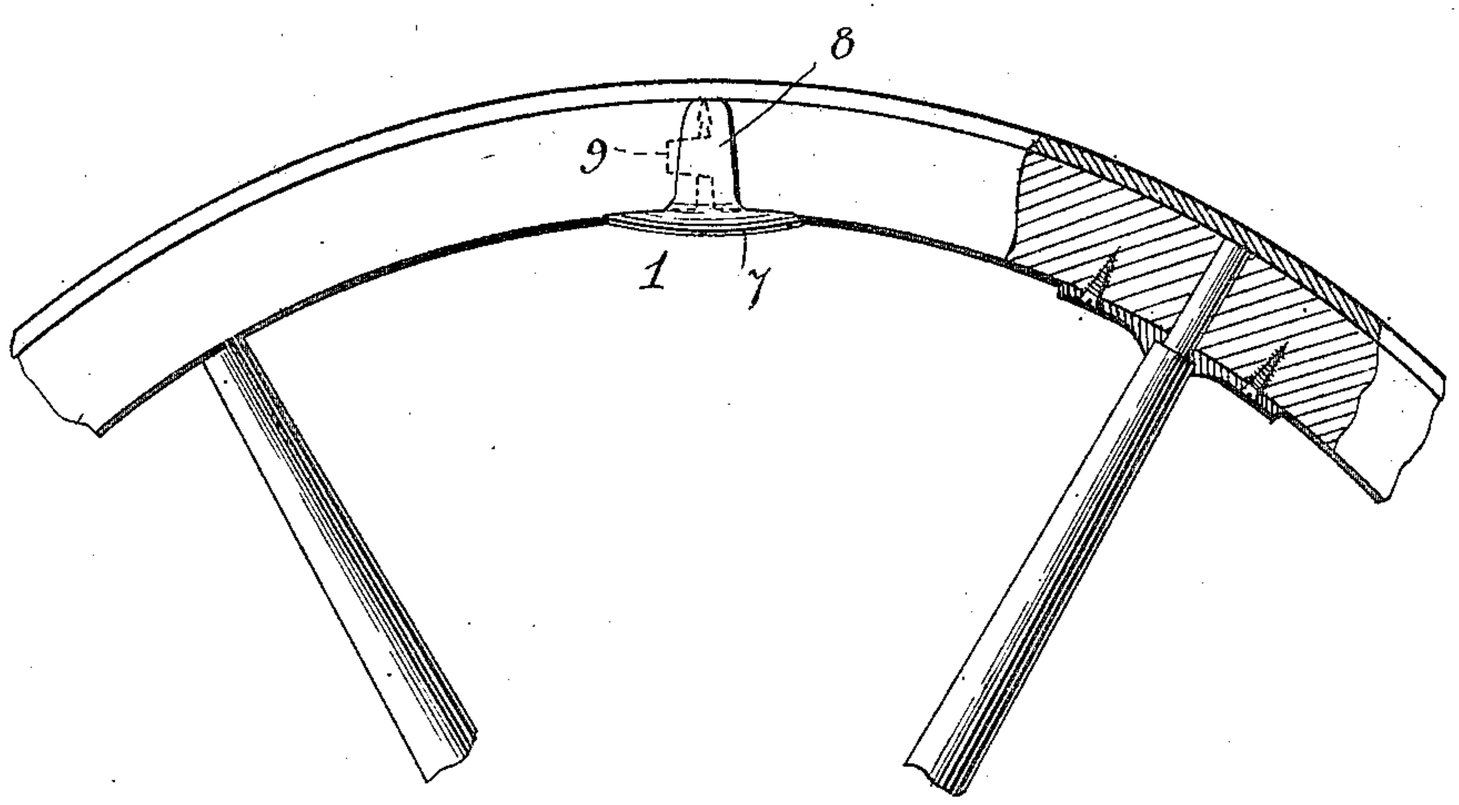


FIG. 2

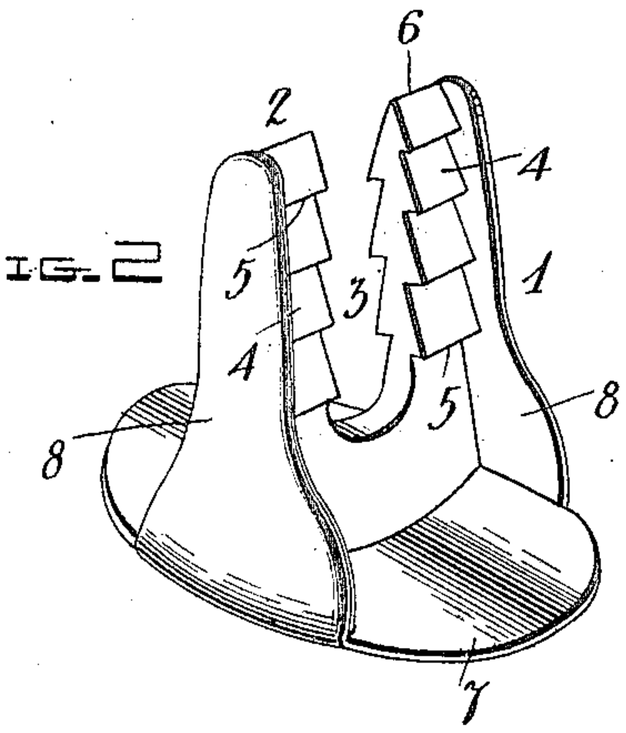
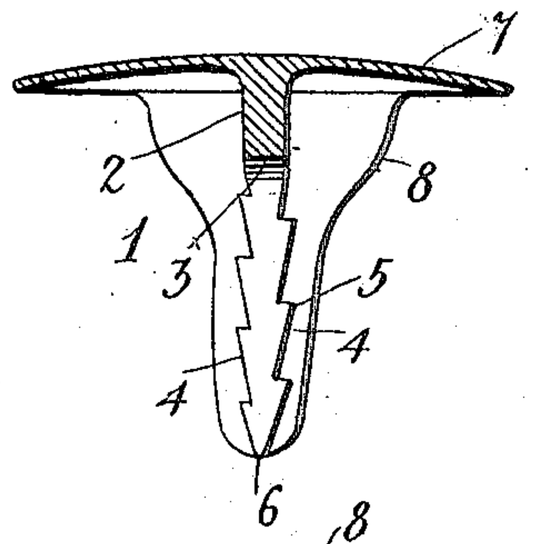


FIG. 3



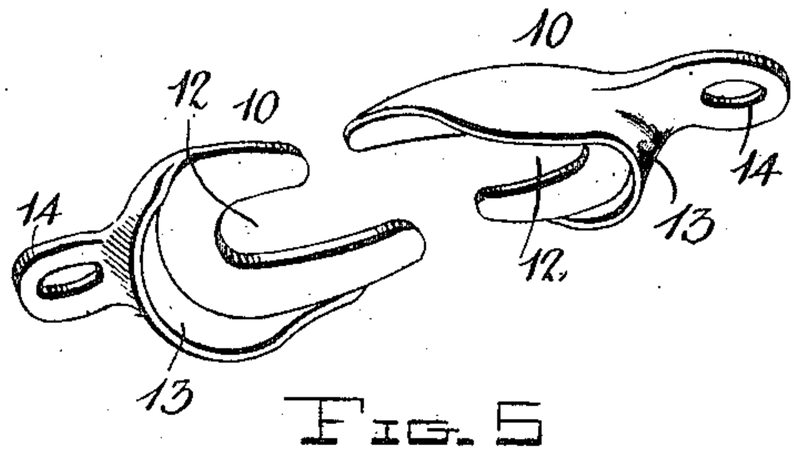


FIG. 5

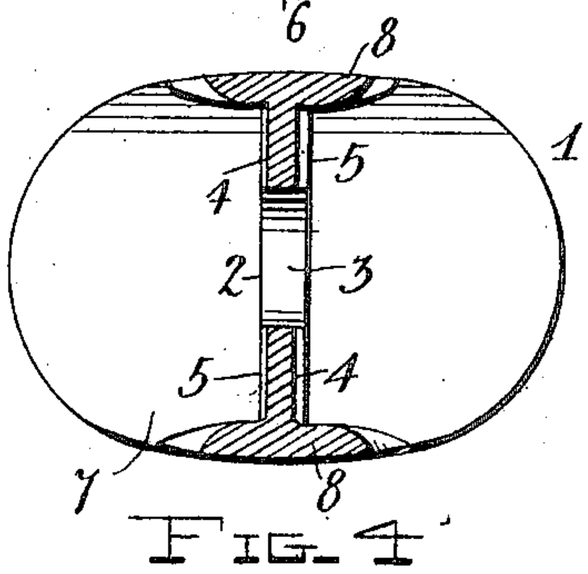


FIG. 4

Witnesses
C. F. Dorbois
C. H. Griesbauer.

Inventor
J. H. Cameron
By
H. B. Willson & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JAMES H. CAMERON, OF PARIS, TEXAS.

TIRE-TIGHTENER.

No. 875,147. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed December 6, 1906. Serial No. 346,623.

To all whom it may concern:

Be it known that I, JAMES H. CAMERON, a citizen of the United States, residing at Paris, in the county of Lamar and State of Texas, have invented certain new and useful Improvements in Tire-Tighteners; and I do 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 tire tighteners.

The object of the invention is to provide a tire tightener having means whereby the same will be securely held in place when driven in between the ends of the wheel rim without the use of additional fastening devices.

With the above and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a side elevation of a portion of a wheel, showing the application of the invention thereto a portion of the wheel rim being broken out; Fig. 2 is a detail perspective view of the fastener; Fig. 3 is a vertical sectional view; Fig. 4 is a transverse sectional view of the same; and Fig. 5 is a detail perspective view of an additional tightening and spoke holding device which may be used in connection with the wedge.

Referring more particularly to the drawings, 1 denotes the tightener, which consists of a wedge-shaped block 2 having formed in one end a centrally-disposed, inwardly-projecting recess 3. On the opposite inclined sides of the block 2 are formed a series of transversely-disposed notches or corrugations 4 forming prongs or teeth 5, which when the wedge is driven between the ends of the rim, engage said ends and prevent the casual disengagement or removal of the wedge. The notches and teeth on one side of the block are arranged in alternate positions with the notches and teeth on the opposite side. The inner reduced end of the block is preferably beveled to a sharp edge, as shown at 6, to facilitate the driving of the wedge between the ends of the rim.

Formed on the outer or enlarged end of the block or wedge 2 is a cap plate 7, which is slightly-curved to conform to the shape of the inner edge of the rim and is adapted to cover and protect the adjacent ends of the same between which the wedge-block is driven. On the outer side edges of the block 2 are formed tapered side plates 8, which are joined at their inner ends with the plate 7 and form practically a continuation of the same. The plates 8 are adapted to cover the sides of the adjacent ends of the rim between which said wedge block is driven, thus protecting the same. The recess 3 is formed in the wedge-block 2 to receive the tenon 9, which is usually formed on one end of the rim to engage a socket or mortise in the adjacent end of the rim.

The wedge block 2 will be firmly held in place by the corrugations thereon when driven in between the adjacent ends of the rim and will be securely-held in place without additional fastening devices, thus providing for the quick and easy application of the same to the rim of a wheel.

A wedge block constructed as herein shown and described will be simple, strong and durable in construction, reliable and efficient in operation and may be manufactured at a greatly reduced cost over similar tire tightening devices requiring additional and separate means for securing the same in place.

In Fig. 5 of the drawings is shown an additional tightening and spoke holding device, which I may employ in connection with my wedge-block, said device consisting of a pair of segmental wedge plates 10 adapted to be driven between the end of the spokes and the adjacent inner side of the wheel rim. The plates 10 have formed in their inner edges a tenon engaging recess 12 and on their outer edges spoke engaging flanges 13. The plates have also formed thereon apertured ears or lugs 14 to receive fastening screws whereby they may be secured to the rim of the wheel. When applied between the end of the spoke and the rim, the inner edges of the plates 10 are adapted to overlap.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as defined by the appended claims.

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

As a new article of manufacture, a tire tightener comprising a wedge-shaped block designed to be introduced between the adjacent ends of a wheel rim and having a longitudinally extending tenon receiving recess opening toward the front entrance end of the block, the inclined side faces of the block being provided with rearwardly pitched engaging teeth designed to engage the contiguous ends of the rim and to serve as the sole means for holding the block in engagement with the latter, the teeth on one side of the block being disposed alternately with respect to those on the other for facilitating entrance of the block between the rim ends, a protecting cap-plate formed on the rear base end of the block, and protecting side plates formed on the side edges of the latter and joined at their rear ends to the cap plate, the latter and side plates being arranged to fit respectively on the inner and side faces of the rim for effectually preventing the entrance of foreign matter into the wedge-receiving space.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES H. CAMERON.

Witnesses:
OWEN P. HALE,
A. P. DOHONEY.