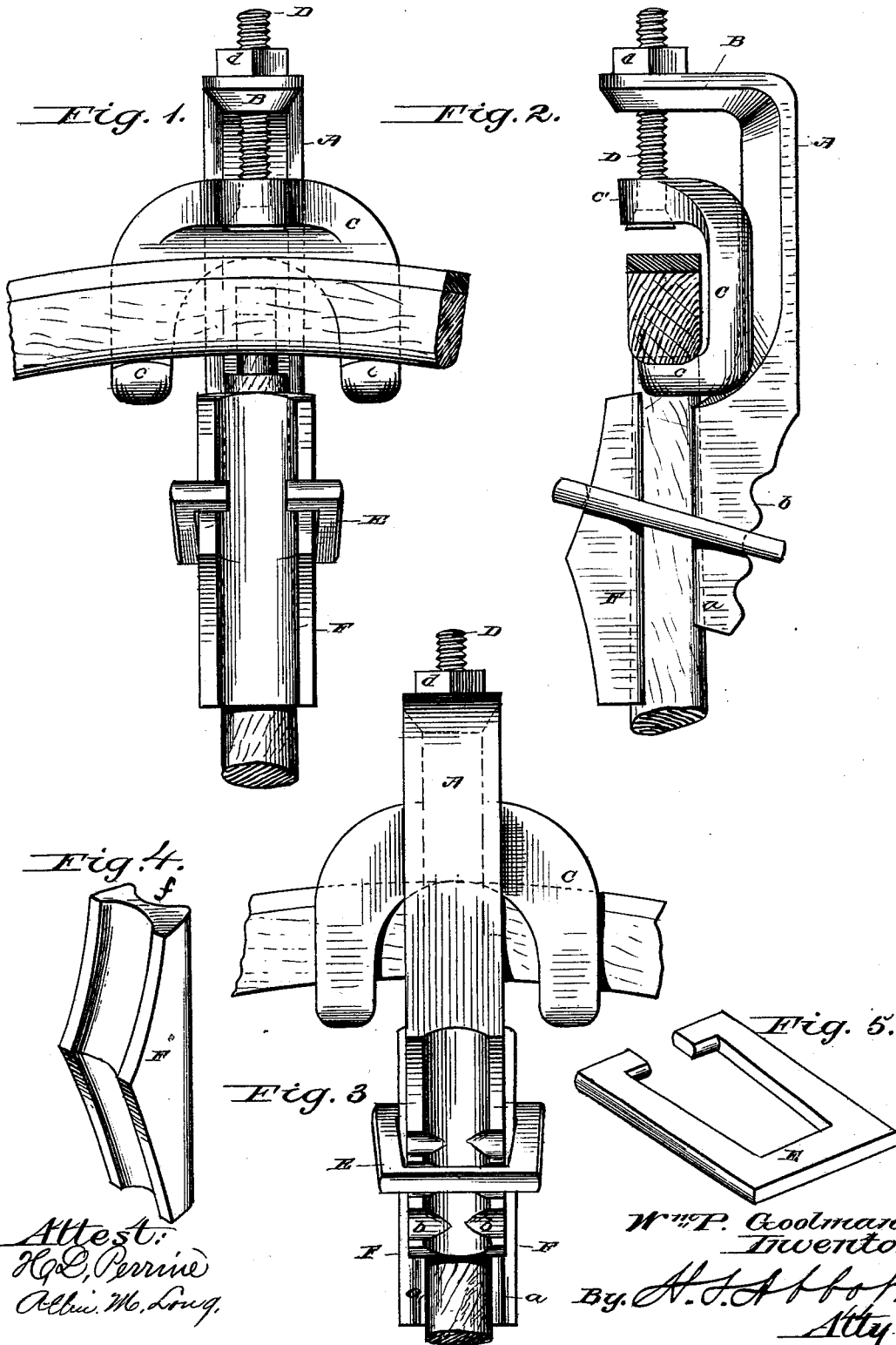


W. P. GOOLMAN.
Tire-Tightener.

No. 213,412.

Patented Mar. 18, 1879.



Attest:
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Atty.

UNITED STATES PATENT OFFICE.

WILLIAM P. GOOLMAN, OF KANSAS CITY, MISSOURI, ASSIGNOR OF ONE-HALF HIS RIGHT TO GEORGE W. LINK.

IMPROVEMENT IN TIRE-TIGHTENERS.

Specification forming part of Letters Patent No. 213,412, dated March 18, 1879; application filed November 29, 1878.

To all whom it may concern:

Be it known that I, WILLIAM P. GOOLMAN, of Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Tire-Tighteners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a front view of the tightener, with a spoke and section of the felly clasped thereon; Fig. 2, an end view of the same; Fig. 3, a rear view thereof; Fig. 4, a detached view of the wedge, and Fig. 5 a detached view of the link.

My invention has reference to tire-tighteners; and it consists of a standard having suspended therefrom a vertically-adjustable stirrup, and, together with a wedge, adapted to be clamped to a wheel-spoke by a link, the tighteners of the clamp being increased with the resistance offered to the raising of the stirrup.

In the accompanying drawings, the letter A indicates the standard, the lower portion of which is grooved longitudinally on its face, as at *a*, and transversely serrated or notched on its back, as at *b*, while an arm, B, projects from the top of the standard at right angles to the length thereof. From this standard there is suspended a stirrup, C, by means of a bolt, D, passed through an ear, *e*, on the stirrup, and through the arm B of the standard, to which it is held by a nut, *d*, by screwing or unscrewing which the stirrup is elevated or lowered. The lower ends of this stirrup are bent or cast at right angles to the face there-

of, so as to form rests or lugs *c*. The other parts of this tightener consist of a link, E, and wedge F, which may taper on the top from the middle toward both ends, and which may have a groove, *f*, in the bottom thereof.

The operation of the device is as follows: The spoke is rested in the groove of the standard, and the felly on the lugs of the stirrup. The link is placed around the spoke and the lower end of the standard, and the wedge F next driven through the link over the spoke, the latter fitting into the groove in the wedge, thus firmly clamping the spoke to the standard. The more that the nut is screwed onto the bolt the tighter the standard clamps the spoke. The nut to the bolt is then turned, and bearing against the head of the standard draws the bolt upward, thereby raising the stirrup, and the stirrup the felly, from the shoulder of the spoke, when a washer is placed between the shoulder and the felly, thus tightening the tire.

Having described my invention, what I claim is—

1. A tire-tightener consisting of a standard and adjustable stirrup, a wedge and a link, the link to clamp the standard and wedge to a spoke, the tightness of the clamp being increased with the resistance offered to the raising of the stirrup, substantially as set forth.

2. The combination of the standard A and vertically-adjustable stirrup C, the link E, and wedge F, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM P. GOOLMAN.

Witnesses:

H. C. TRAIN,
E. P. WEST.