

UNITED STATES PATENT OFFICE.

HORACE N. THAYER, OF ERIE, PENNSYLVANIA.

HUB-ATTACHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 631,972, dated August 29, 1899.

Application filed December 27, 1898. Serial No. 700,431. (No model.)

To all whom it may concern:

Be it known that I, HORACE N. THAYER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Mechanism for Securing Carriage-Wheels upon Their Axles; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to mechanism for securing carriage-wheels upon their axles; and it consists, substantially, of securing an annular chambered collar to the axle at the rear end of the hub provided with a spring-actuated circular catch pivoted in the periphery of the collar and operating in an annular slot therein, so as to engage a flange on the rear end of the wheel-hub and retain the wheel upon the axle.

The features of this invention are herein-after fully set forth and explained, and illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of the mechanism embodying this invention in place upon a carriage-axle. Fig. 2 is a transverse section of the same on the line xx in Fig. 1 looking in the direction of the arrow.

In the drawings thus illustrating my invention, A is a section of a carriage-axle, and B a radial collar or flange secured thereto. On the outer edge of the collar B is an annular rim B' , projecting toward the outer end of the axle A, and on the outer end of the rim B' there is an inwardly-projecting flange B^2 . Through the rim B' there is a slot b , in which a curved arm D operates, this arm D being pivoted near one end of the slot b to an ear b' on the periphery of the rim B' , and on the end of the portion d of the curved arm D there is a shoulder d' , adapted to engage the periphery of the rim B' at the end of the slot b when the opposite end d^2 of the arm D is moved outward, so as to limit such outward movement thereof. The end d^2 of this arm

D is also provided with a thumb-piece D' , by which the end d^2 thereof can be moved outward. To retain the arm D within the slot b in its normal position, there is a small flat spring C secured to the inner face of the rim B' , so that the free end thereof engages the end d of the arm D, as illustrated in Fig. 2.

To the inner end of the wheel-hub E there is secured a radial flange F, adapted to pass freely through the opening within the inwardly-projecting flange B^2 , and when the curved arm D is moved outward the flange F will pass on back against the inside wall of the collar B. The curved arm D being then returned back to its normal position passes down outside of the flange F, as illustrated in the drawings, and prevents the wheel-hub E from being removed from the axle A. The slot b being in the upper portion of the flanged collar B, the lower portion thereof forms a receptacle for oil for lubricating the axle and mechanism for retaining the wheel-hub thereon.

From the foregoing description the operation of the mechanism embodying this invention is so manifest that further description is deemed unnecessary.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination of a collar, having an annular rim thereon, secured to a carriage-axle at the rear end of the wheel-hub bearing thereof, a curved arm pivoted to the rim on said collar, so as to operate in a slot therein, and a radial flange on the rear end of the carriage-wheel hub adapted to pass under the annular rim on said collar, and be engaged by the curved arm operating therein, substantially as and for the purpose set forth.

2. The combination of a recessed and radially-slotted collar on a carriage-axle, a flange on the rear end of the carriage-wheel hub adapted to enter the recess in said collar, an arm pivoted to said collar and operating in said slot so as to engage the flange on the rear end of the wheel-hub, and a spring engaging said curved arm, substantially as and for the purpose set forth.

3. The combination of a carriage-axle A, a flanged collar B B' B^2 having a slot b there-

in, secured to said axle, a carriage-wheel hub
E adapted to operate on the axle, a radial
flange F on the rear end of the hub E adapt-
ed to enter the flanged collar on the axle, a
5 curved arm D pivoted on said flanged collar
and operating in the slot *b* therein to engage
the radial flange F on the wheel-hub, and a
spring C in said flanged collar operating on

the curved arm D, substantially as and for
the purpose set forth. 10

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

HORACE N. THAYER.

Witnesses:

FRED EINFELDT,
H. J. CURTZE.