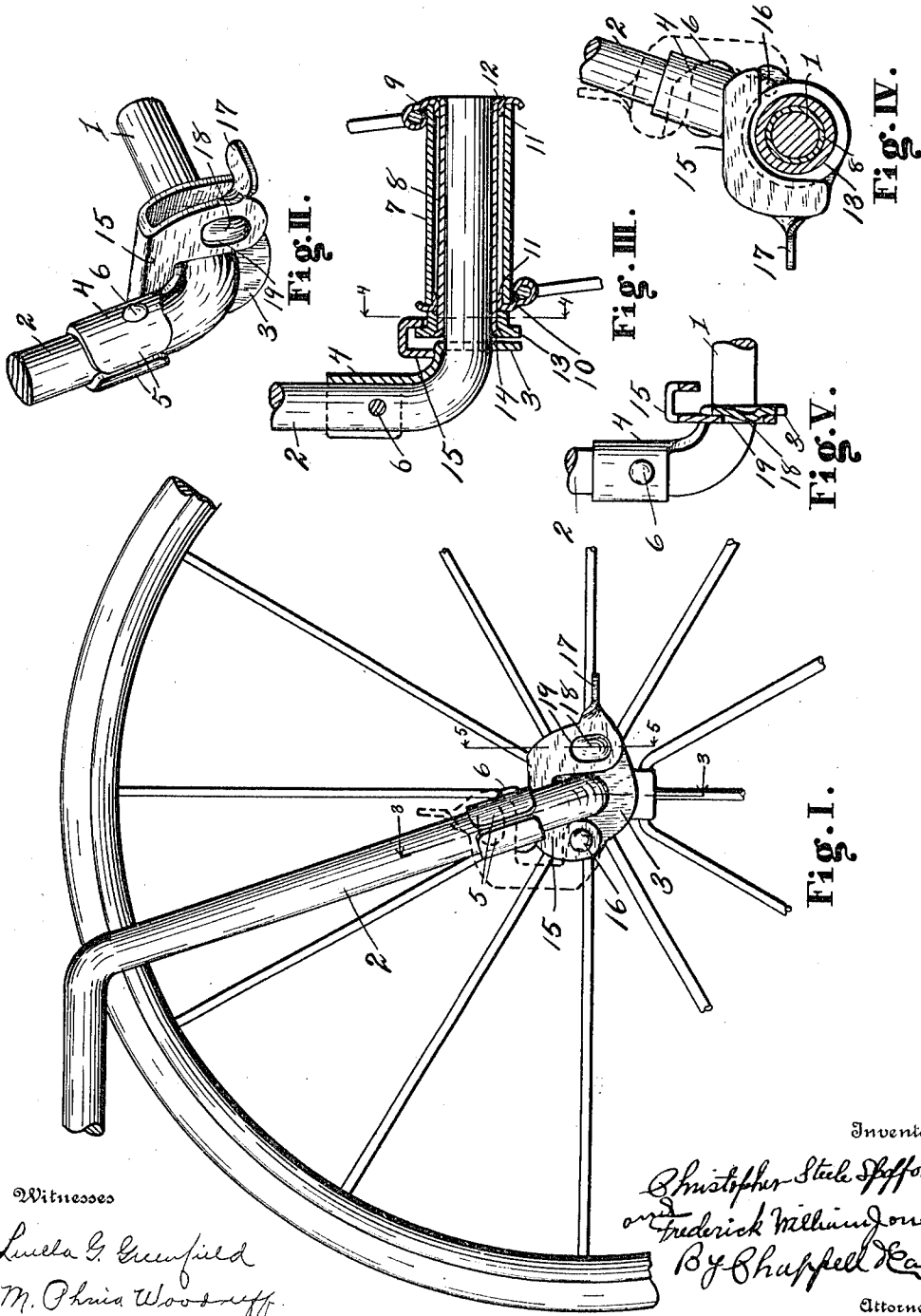


C. S. SPOFFORD & F. W. JONAS.
WHEEL ATTACHING DEVICE.
APPLICATION FILED JAN. 29, 1912.

1,040,803.

Patented Oct. 8, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

CHRISTOPHER STEELE SPOFFORD AND FREDERICK WILLIAM JONAS, OF STURGIS, MICHIGAN, ASSIGNORS TO STURGIS STEEL GO-CART COMPANY, OF STURGIS, MICHIGAN.

WHEEL-ATTACHING DEVICE.

1,040,803.

Specification of Letters Patent.

Patented Oct. 8, 1912.

Application filed January 29, 1912. Serial No. 674,011.

To all whom it may concern:

Be it known that we, CHRISTOPHER STEELE SPOFFORD and FREDERICK WILLIAM JONAS, citizens of the United States, residing at the city of Sturgis, county of St. Joseph, State of Michigan, have invented certain new and useful Improvements in Wheel-Attaching Devices, of which the following is a specification.

This invention relates to improvements in wheel attaching devices.

Our improved wheel attaching device is especially designed by us for use in light carriages, such as children's carriages of the type shown in the patent to Loshbough, No. 941,374, dated Nov. 30, 1909, although it may be readily adapted for use in other relations.

The main objects of this invention are: First; to provide an improved wheel attaching device for carriages which is effective and is at the same time simple in structure and easily and quickly manipulated to secure or release the wheel. Second; to provide an improved wheel attaching device which is compact and does not detract from the appearance of the structure to which it is applied, and one which also serves as a guard for the inner end of the hub. Third; to provide an improved wheel attaching device which is very economical in structure.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

We accomplish the objects of our invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of our invention is clearly illustrated in the accompanying drawing, forming a part of this invention, in which:

Figure I is a detail inside view of a structure embodying the features of our invention, the securing member 15 being shown by dotted lines in its disengaging position. Fig. II is a detail perspective view with the wheel removed, the securing member 15 being shown in its engaging position. Fig. III is a detail section taken on a line corresponding to the broken line 3—3 of Fig. I, the spindle and wheel support being shown in full lines. Fig. IV is a detail section taken on a line corresponding to line 4—4 of

Fig. III, the wheel securing member being shown in its disengaged position by dotted lines. Fig. V is a detail section taken on a line corresponding to line 5—5 of Fig. I, showing the details of the catch for retaining the wheel securing member in its engaging position.

In the drawing, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, the wheel spindle 1 is carried by a hanger or support 2, the hanger being rod like in form the spindle being formed integrally therewith by turning the lower end of the hanger laterally. The thrust collar 3 is sleeved upon the spindle and is retained and supported thereon by means of the clip 4 which projects upwardly from the upper edge of the collar, being in the structure illustrated, formed integrally therewith and having clip fingers 5 embracing the support 2. A rivet 6 is arranged through these fingers and through the support. The collar and its clip as thus arranged form a brace and a reinforcing means for the axle and its support.

The hub of the wheel illustrated comprises a barrel 7, a bushing 8 and spoke flanges 9 and 10. The spoke flanges are provided with inturned portions 11 disposed between the barrel and the bushing, the flange 9 being retained by upsetting the end of the bushing as at 12, while the flange 10 is retained by the retaining flange 13, which is sleeved upon the bushing and secured thereon by upsetting the bushing at 14. The hub flange 13 is its retaining flange and is engaged by the securing member 15. This securing member is pivoted at 16 to the collar 3. The securing member 15 is yoke-like in shape and channeled in cross section to embrace the collar and the hub flange 13 as illustrated, thus retaining the wheel. When swung to the position indicated by dotted lines in Figs. I and IV, the wheel is released. By thus forming the securing member it engages a relatively large portion of the collar 3 and the hub flange and also serves as a guard therefor. It is preferably provided with a finger piece 17 for convenience in manipulation. The collar is provided with a lug-like catch 18 and the securing member 15 with a coacting engaging

opening 19. The spring of the parts, which are preferably formed of sheet metal, keeps them in engagement.

Our improved wheel attaching device is very simple and economical in structure and is very easily manipulated. Further, with the parts formed and arranged as described, it serves as stated as a guard for the inner end of the hub. The structure is also very compact and does not detract from the appearance of the carriage to which it is applied.

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

1. The combination of a rod-like wheel support, a spindle projecting laterally therefrom, a wheel having a flange at the inner end of its hub, a thrust collar sleeved upon said spindle and having an upwardly projecting clip arm engaging said support, and a yoke-shaped securing member channel shaped in cross section to embrace said collar and said hub flange, said member pivoted by one of its arms to said thrust

collar at one side of the axle to embrace the axle when in its engaging position, said collar being provided with a lug-like catch and said attaching member with a coacting engaging opening.

2. The combination of a rod-like wheel support, a spindle projecting laterally therefrom, a wheel having a flange at the inner end of its hub, a thrust collar sleeved upon said spindle and having an upwardly-projecting clip arm engaging said support, and a yoke-shaped securing member channel shaped in cross section to embrace said collar and said hub flange, said member being pivoted by one of its arms to said thrust collar at one side of the axle to embrace the axle when in its engaging position.

In witness whereof, we have hereunto set our hands and seals in the presence of two witnesses.

CHRISTOPHER STEELE SPOFFORD. [L. s.]

FREDERICK WILLIAM JONAS. [L. s.]

Witnesses:

PAUL M. ROTH,

J. W. BENNETT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."