

No. 606,973.

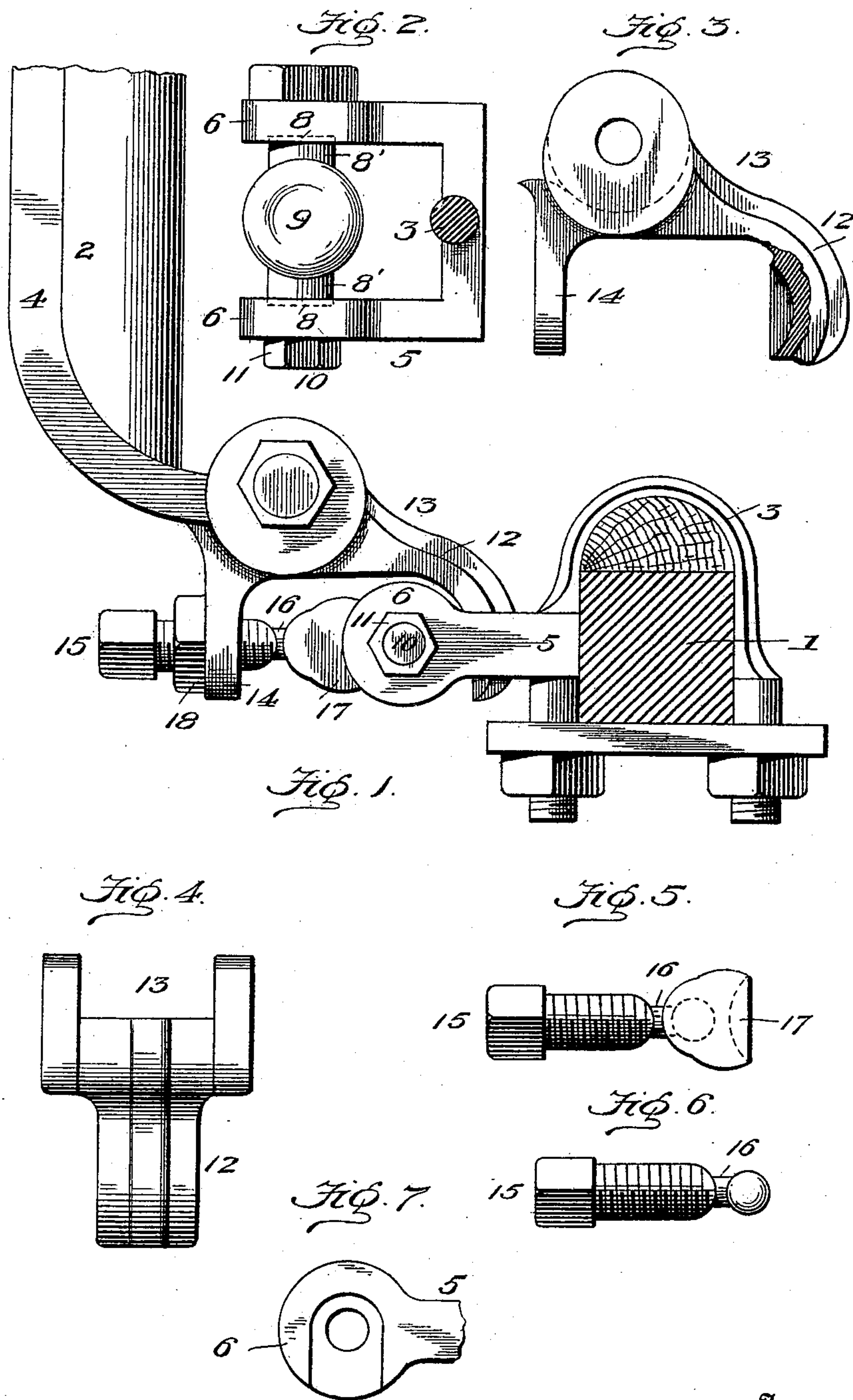
Patented July 5, 1898.

G. P. LA POER & C. E. WALKER.

THILL COUPLING.

(Application filed Sept. 29, 1897.)

(No Model.)



Witnesses

Wm. C. Ashiee
J. A. Wilson

Inventors
G. P. LaPoer & C. E. Walker
by *A. B. Wilson & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE P. LA POER AND CHARLES E. WALKER, OF YORK, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 606,973, dated July 5, 1898.

Application filed September 29, 1897. Serial No. 653,527. (No model.)

To all whom it may concern:

Be it known that we, GEORGE P. LA POER and CHARLES E. WALKER, citizens of the United States, residing at York, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Thill-Couplings; and we 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.

Our invention has relation to antirattlers; and the object is to provide a device of this character which shall be simple of construction, durable when used, and comparatively inexpensive of production and which will surely retain the parts against accidental displacement and be positively noiseless in its movement.

With these objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation showing the application of our invention. Fig. 2 is a top plan view of the yoke and ball-bearing. Fig. 3 is a side elevation of the thill-iron attachment. Fig. 4 is a rear view of the same. Fig. 5 is a top plan view of the set-screw and its cap. Fig. 6 is a similar view of the set-screw removed. Fig. 7 is a view to show the recess in the ear of the clip.

In the accompanying drawings, 1 denotes the axle; 2, the thill; 3, the axle-clip, and 4 the thill-iron. These parts may be of any well-known or approved construction, and a detailed description of the same is not thought to be necessary.

5 denotes the clip-yoke, which may be attached to or formed integral with the clip, and its ears 6 are formed on their adjacent faces with recesses 8, closed at their upper ends. These recesses receive the tenons 8' of a ball 9, which is held in place by a bolt 10, passing through the ears, the tenons, and ball, and engaged by a nut 11.

12 denotes the thill-iron attachment, to which the eye of the thill is firmly bolted. This attachment is provided with a rear-

wardly-projecting arm 13, that projects downwardly between the ears of the yoke and is provided with a ball-seat to fit one side of the ball 9. The arm 14 projects downwardly from the forward portion of the attachment and is provided with a screw-threaded aperture through which extends a bolt 15, having swiveled to its reduced end 16 a ball-cap 17, which receives and seats the opposite sides of the ball 9. The jam-nut 18 is used for the purpose of holding the screw in its adjusted position.

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

The device is simple, is composed of a few parts, and is positively noiseless.

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

The combination with the clip-yoke, the inner sides of the ears of which are provided with opposing recesses, open at their lower ends and closed at their upper ends, a hollow ball, having hollow tenons, said tenons fitted in said recesses, a bolt for securing the ball in position, a thill-iron, a thill-iron attachment secured to said thill-iron, and provided with a rearwardly and downwardly projecting arm that extends between the parallel ears of the yoke, and is provided with the countersunk ball-seat and said attachment being also provided at its forward end with a downwardly-projecting arm, a screw worked through said arm and being swiveled to a block having a ball-seat therein to embrace the ball on the point directly opposite that portion embraced by the recess carried by the other arm, and a jam-nut on said bolt for holding the block in position.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

GEORGE P. LA POER.
CHARLES E. WALKER.

Witnesses:

ALBERT J. DEITZ,
C. F. KEECH.