

No. 627,175.

Patented June 20, 1899.

C. C. BRADLEY.  
THILL COUPLING.

(Application filed Jan. 25, 1897.)

(No Model.)

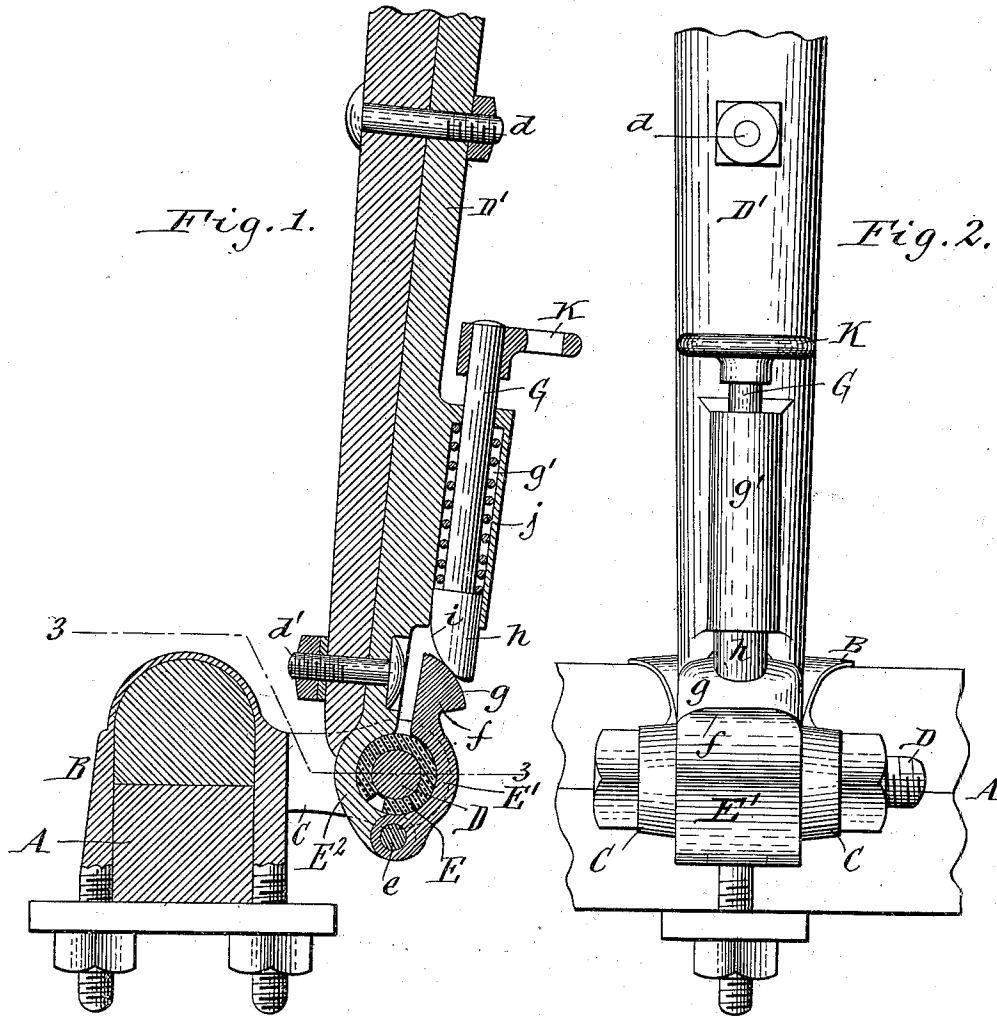
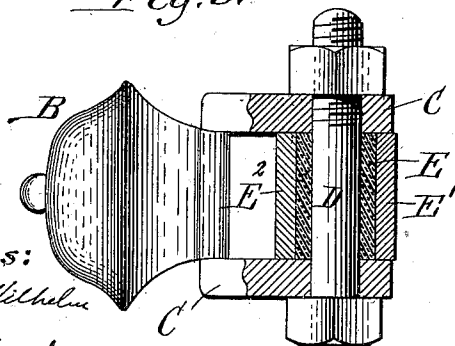


Fig. 3.



Witnesses:

F. Gustav Wilhelm  
Emert Pulsford.

C. C. Bradley

Inventor:

By Wilhelm Bonnet.  
Attorneys.

# UNITED STATES PATENT OFFICE.

CHRISTOPHER C. BRADLEY, OF SYRACUSE, NEW YORK, ASSIGNOR TO  
CHRISTOPHER C. BRADLEY, JR., OF SAME PLACE.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 627,175, dated June 20, 1899.

Application filed January 25, 1897. Serial No. 620,667. (No model.)

*To all whom it may concern:*

Be it known that I, CHRISTOPHER C. BRADLEY, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented new and useful Improvements in Thill-Couplings, of which the following is a specification.

This invention relates to that class of thill-couplings in which the movable jaw is secured by a spring locking-bolt, so that the jaw can be readily released and secured in changing from thills to pole, or vice versa.

The object of my invention is to produce a simple, convenient, and reliable coupling of this character.

In the accompanying drawings, Figure 1 is a longitudinal vertical section of my improved thill-coupling and connecting parts. Fig. 2 is a front elevation thereof. Fig. 3 is a horizontal section in line 3 3, Fig. 1.

Like letters of reference refer to like parts in the several figures.

A represents the axle; B, the clip; C, forwardly-projecting jaws formed on the front member of the clip; D, the transverse bolt secured in said jaws, and E the cylindrical washer or bushing, of leather or other suitable material, applied to said bolt. All of these parts may be of any ordinary construction.

D' represents the rear portion of a thill or pole iron terminating at its rear end in a fixed coupling-jaw E<sup>2</sup>, which is adapted to embrace the upper or rear portion of the bolt and bushing. This iron is secured to the under side of the thill or pole extension by fastening-bolts *d d'* or other suitable means.

E' represents the movable coupling-jaw, which is connected to the rear end of the fixed jaw by a hinge-joint *e* and extends forwardly from the hinge-joint and embraces the lower or front portion of the bolt and bushing. The front-end of the movable jaw is provided with a head *f*, which has a curved or inclined lower face *g*, and the jaw is so constructed that a suitable clearance-space is left between its front end and the front or under side of the thill-iron D' when the jaw has been swung against the bolt and bushing.

G represents a sliding bolt which is arranged in a longitudinal socket *g'*, formed on the under or front side of the thill-iron D'.

This bolt is provided at its rear end with a head *h*, which has a curved or inclined upper or rear face *i*, by which the bolt bears against the curved or inclined front face of the movable jaw. This bolt is pressed rearwardly by a spring *j*, which is applied to the bolt in its socket and bears with its front and rear ends, respectively, against the head of the bolt and the bottom of the socket. This spring holds the locking-bolt in such engagement with the movable jaw as to lock the latter in its closed position, and the curved or inclined contact-faces of the bolt and jaw are made of such length that the bolt can follow the jaw as the front end of the latter approaches the under side of the thill-iron by wear or compression of the washer or bushing.

The front end of the bolt is provided with a loop K, which serves as a handle for releasing the bolt and through which a strap can be drawn for connecting the same with the axle. Upon releasing the bolt the movable jaw is free to swing away from the fixed jaw on the hinge-joint at the rear end of the movable jaw, thereby enabling the jaw to be opened wide and the thill or pole, as the case may be, to be readily removed or applied.

I claim as my invention—

The combination with the thill-bolt, the fixed coupling-jaw and the movable jaw hinged at its rear end to the rear end of the fixed jaw, having the back of its front end, when closed upon the thill-bolt, separated by an open space from the front end of the fixed jaw, and having an inclined locking-face, of a locking-bolt mounted in front of the hinged jaw and having at its rear end an inclined locking-face which bears against the locking-face of the hinged jaw, and a spring which presses said bolt rearwardly, thereby exerting a constant pressure against the inclined locking-face of the hinged jaw, pressing the free end of the latter toward the fixed jaw and taking up the wear automatically, substantially as set forth.

Witness my hand this 6th day of January, 1897.

CHRISTOPHER C. BRADLEY.

Witnesses:

HOWARD P. DENISON,  
MARY A. FRANKLIN.