

No. 613,849.

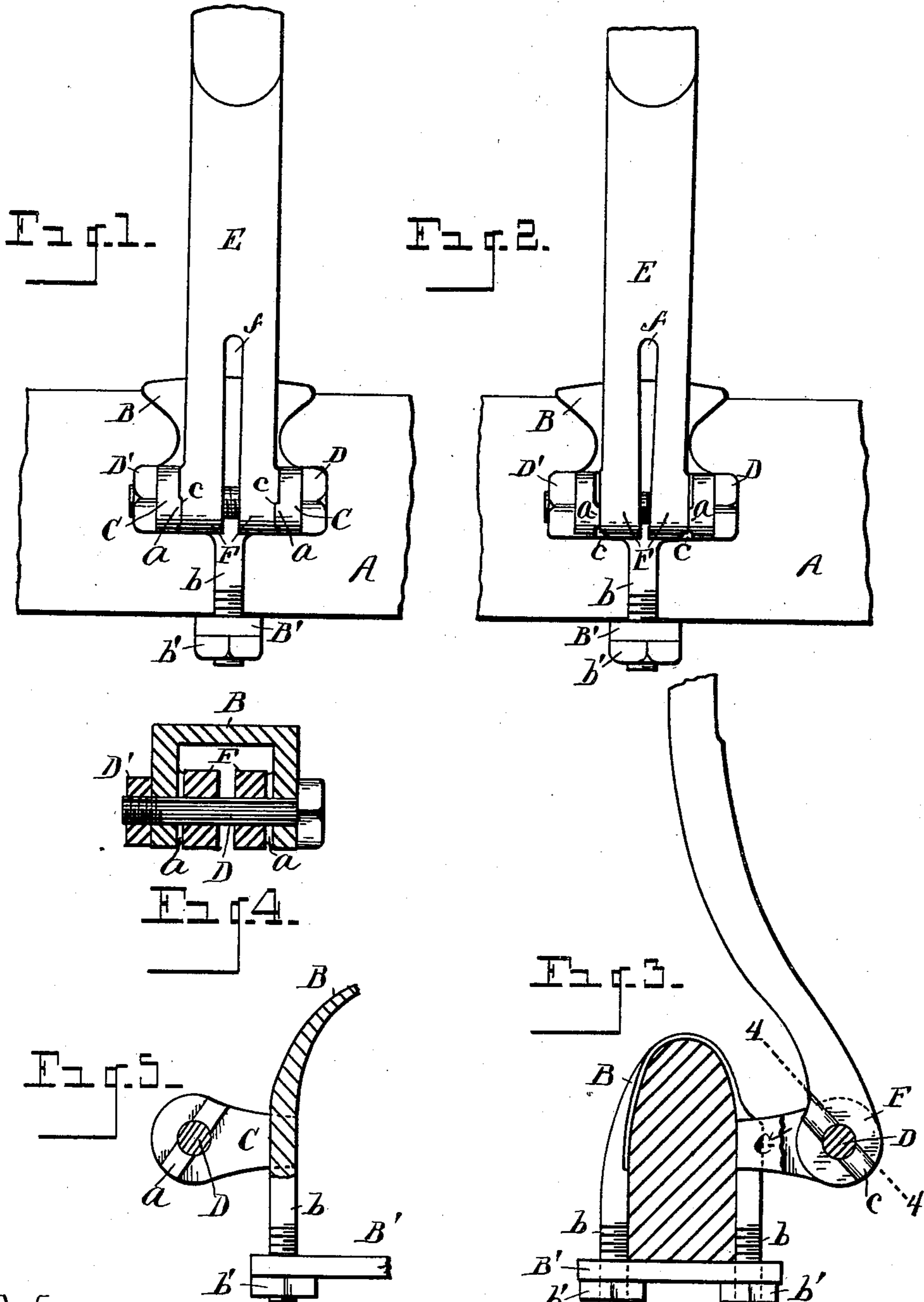
Patented Nov. 8, 1898.

C. J. SHETTERLY.

THILL COUPLING.

(Application filed Dec. 31, 1897.)

(No Model.)



WITNESSES.
O. P. Parvizio
Jacob Barlow

INVENTOR
Charles J. Shetterly,
By R. B. Wheeler & Co.,
Attys.

UNITED STATES PATENT OFFICE.

CHARLES J. SHETTERLY, OF ANN ARBOR, MICHIGAN.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 613,849, dated November 8, 1898.

Application filed December 31, 1897. Serial No. 664,817. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. SHETTERLY, a citizen of the United States, residing at Ann Arbor, in the county of Washtenaw, State of Michigan, have invented certain new and useful Improvements in Thill-Couplings; and I 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to thill-couplings; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide a simple and economic thill-coupling in which the arrangement is such as to prevent all rattling of the coupling parts when in service and which will retain the thills in a raised position when not in use. This object is attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation showing the position of the coupling when the thills are raised. Fig. 2 is a like view showing the position of the parts when the thills are in use. Fig. 3 is a side elevation of the coupling, the axle being in cross-section and one of the ears of the clip being broken away to more clearly show the construction of parts. Fig. 4 is a section on line 4 4 of Fig. 3. Fig. 5 is a detail, partly in section, showing the raised rib or lug on the inner face of the ears of the clip.

Referring to the letters of reference, A designates the axle, upon which is mounted the ordinary clip B, secured in place by the yoke or cross-bar B', through which pass the reduced threaded ends *b* of the clip, which receive the confining-nuts *b'*. Formed integral with the clip B and projecting therefrom are the opposed ears C, which are provided upon their inner faces with the diametrical ribs or lugs *a* and which are also provided with a central aperture to receive the binding-bolt D.

E designates the thill-iron, which is suitably curved and adapted to be mounted on the end of the thills. This iron is made of spring metal and is provided with an eye F

in the end thereof, which is bifurcated by slotting said arm longitudinally, as shown at *f*. The opposed outer faces of said divided eye are provided with transverse recesses *c*, (see Fig. 3,) which are adapted to receive the raised ribs or lugs *a* upon the inner faces of the opposed ears C of the clip when said parts are brought into position so as to register one with the other.

In the application of this improved device it will be understood that the divided eye F of the thill-iron is inserted between the opposed ears C of the clip and secured between said ears by the binding-bolt D, which passes through said parts and which is retained in place by the nut D'. The formation of said parts is such that when the divided eye of the thill-iron is so confined between the opposed ears of the clip and the thills are raised to an upright position the lugs *a* on said ears will lie in the recesses *c* in the outer faces of the divided eye of the thill-iron and securely support the thills in a vertical position by reason of the engagement of said lugs in said depressions, as clearly shown in Fig. 1. When desired for use, the thills may be forcibly swung downward, causing the thill-iron to turn on the pivot formed by the bolt D, and the lugs *a* to consequently ride out of the depressions *c* in the opposed faces of the bifurcated eye of said iron when the divided ends of said eye are caused to spring inward, as clearly shown in Fig. 2, the lugs *a* in this position bearing against the outer faces of said divided eye, and because of the outward force exerted by the spring in the members of said divided eye, which tends to separate the ears C, said ears are crowded tightly against the head and nut of the bolt D and all of said parts are securely held from rattling. This outward force exerted by the spring members of the divided eye is continuous, while the lugs of the ears remain out of the depressions in the faces of said eye, whereby a constant tension is placed upon the bolt D while the thills are extending in a horizontal position.

When it is desired to support the thills in a vertical position, they are simply swung upward until the depressions in the outer faces of the divided eye thereof are caused to register with the lugs on the opposed ears of the clip, when the members of the divided eye

will spring outward as said lugs ride into the depressions therein, thereby securely retaining the thills in an elevated position, as clearly shown in Figs. 1 and 3.

5 As will be seen, this improved device is very simple and inexpensive, costing but little, if any, more than the ordinary thill-coupling, while it serves as a secure support for the thills when raised and prevents any rattling of the parts while the thills are in use.

10 Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a thill-coupling, the combination of
15 the clip having the projecting ears, the thill-iron having the bifurcated eye adapted to lie between said ears, the meeting faces of said ears and eye being provided with registering lugs and recesses which are adapted to en-
20 gage to hold the thills raised, and the binding-bolt passing through said ears and eye.

2. In a thill-coupling, the combination of the clip having the projecting ears provided with a lug on the inner faces thereof, the thill-
25 iron having a bifurcated eye adapted to lie

between the ears of the clip and having a recess in the outer faces thereof to receive the lugs of said ears, and the binding-bolt passing through said ears and eye.

3. In a thill-coupling, the combination with 30 the clip having the extending ears, the thill-iron having the divided spring-eye whose members are adapted to spring toward and from each other, said eye lying between said ears, the binding-bolt passing through said 35 parts to secure said eye in place, the registering lugs and recesses on the adjacent faces of said eye and ears which engage to lock the thills in a raised position and which separate and cause the members of the divided eye of 40 the thill-iron to spring inward as said eye turns upon the binding-bolt substantially as set forth.

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

CHARLES J. SHETTERLY.

Witnesses:

JOHN W. BENNETT,

GEO. B. SHETTERLY.