

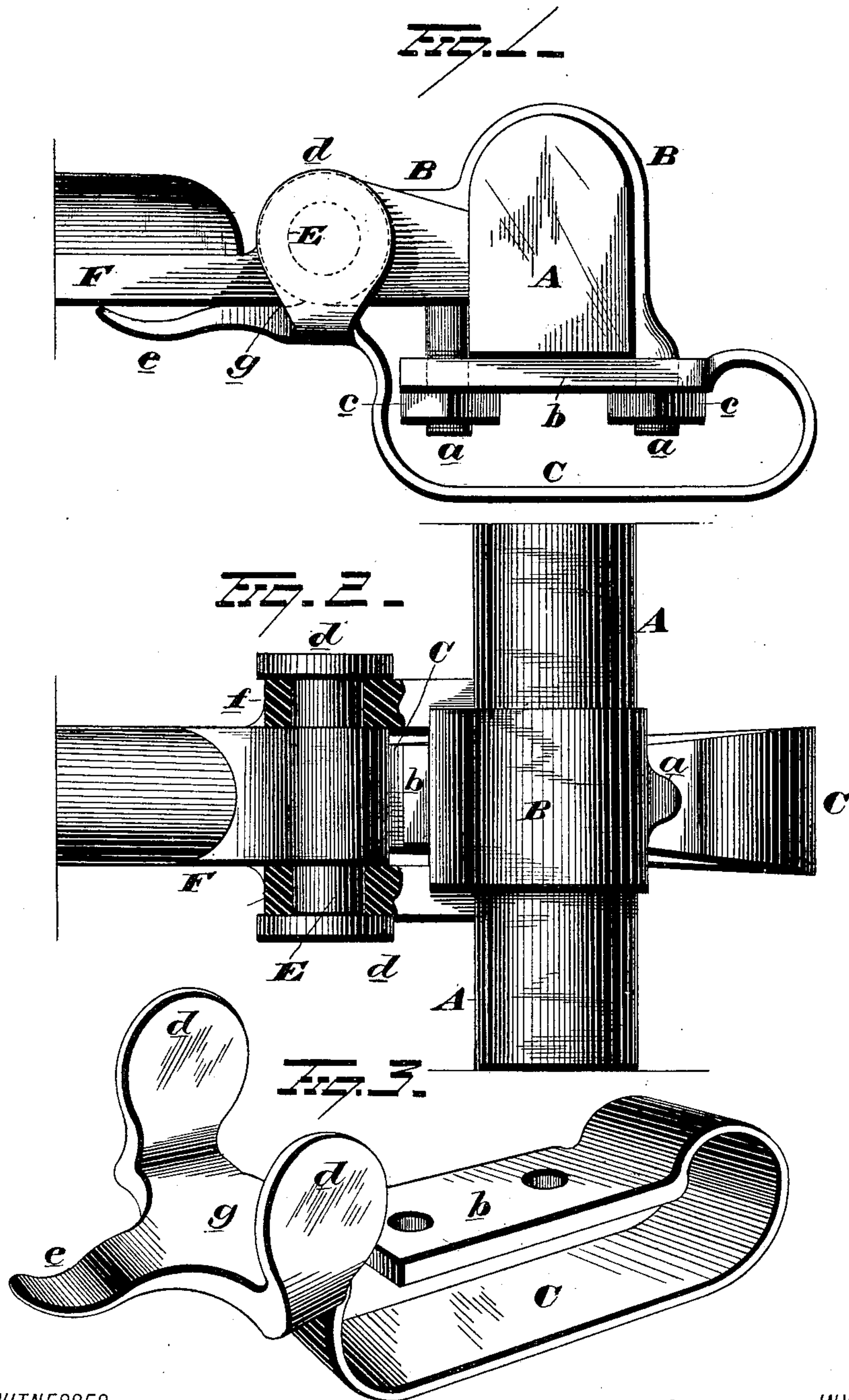
(No Model.)

L. F. TAYLOR & W. F. CLARK.

THILL COUPLING.

No. 266,657.

Patented Oct. 31, 1882.



WITNESSES
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UNITED STATES PATENT OFFICE.

LEWIS F. TAYLOR AND WILLIAM F. CLARK, OF ORLAND, INDIANA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 266,657, dated October 31, 1882.

Application filed August 30, 1882. (No model.)

To all whom it may concern:

Be it known that we, LEWIS F. TAYLOR and WILLIAM F. CLARK, of Orland, in the county of Steuben and State of Indiana, have invented certain new and useful Improvements in Thill-Couplings; and we 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 pertains to make and use the same.

Our invention relates to an improvement in thill-coupling, the object of the same being to provide a device that will combine simplicity and economy in construction with durability and efficiency in use; and with these ends in view our invention consists in certain details in construction and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of our improvement, showing the same secured to a vehicle-axle. Fig. 2 is a plan view of the same, and Fig. 3 is a detached view of the spring-holder.

A represents the fore axle, and B the clip, provided with the screw-threaded ends *a*, on which the curved spring-metal holder C is fastened. This holder is curved substantially as shown in Fig. 3, and is provided with the straight portion *b* thereof, which rests up against the under side of the axle A, and is secured in position on the threaded ends *a* by nuts *c*. This straight portion *b* of the holder C, besides providing means for the attachment of the holder to the clip, also serves as a bottom plate to the clip and effectually holds it in position. The holder C, after leaving the axle A, curves downward and forward under the same, and then upward in front of the clip, where it is provided with two side ears, *d*, and a forwardly-projecting finger, *e*, the functions of which will be hereinafter described. The clip B is provided in front with the two side arms, *f*, each having an opening for the passage of the bolt E, and separated sufficiently for the reception of the thill-iron F, which latter is of ordinary construction.

E is a plain bolt without head or screw-threads, and of length sufficient to extend from the outside of one arm *f* through the head of

the thill-iron F to the outside of the other arm *f* without any lateral play.

As before stated, the holder C is curved upward in front of the clip and is provided with side ears, *d*. These side ears, *d*, can be of any desired shape, and are adapted to occupy positions on the opposite sides of the arms *f* in line with the bolt-openings therein, while the finger *e* rests immediately under the thill-iron F. That portion of the holder C immediately below the head of the thill-iron F and between the ears *d* is convexed or raised up, as shown at *g*, so as to constantly bear upward against the head of the thill-iron and prevent the parts from rattling.

When it is desired to remove the shafts from the thills it is simply necessary to grasp the finger *e* of the holder C and depress the same. By depressing the outer or free end of the spring-holder the ears *d* are also lowered, which uncovers the openings in the arms *f* and allows the bolt to be removed. As soon as the bolts are removed the shafts are free to be withdrawn from the clips. When it is desired to replace the shafts the free end of the holder C is again depressed, the bolt placed in position, and the spring-holder is allowed to resume its normal position. By this means the bolts are securely held in position without the use of nuts, and the parts prevented from rattling without the interposition of rubber or other packing between the clip and head of the thill-iron.

Instead of providing the holder C with two ears, *d*, and the bolt E with no head, as previously described, the holder can, if desired, be provided with only one ear and the bolt with a head and answer all the necessary purposes. When this latter construction is employed the one ear would rest up against and on the outside of the bolt-head and prevent the bolt from being accidentally displaced.

Our improvement is simple in construction, is durable and efficient in use, and can be applied to any vehicle on which the ordinary thill-coupling is employed without changing the construction of the clip or thill-iron.

It is evident that slight changes in the construction of the spring-holder might be resorted to without departing from the spirit of our in-

vention; and hence we would have it understood that we do not limit ourselves to the exact construction shown and described, but consider ourselves at liberty to make such
5 changes as come within the spirit and scope of our invention.

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

10 1. The combination, with the clip, thill-iron, and bolt, of the spring-holder having a straight portion, by means of which it is secured to the clip, side ear or ears for holding the bolt in position, and a finger, all of the above parts
15 adapted to operate as described.

2. The combination, with the clip, thill-iron, and headless bolt, of the spring-metal holder,

curved as shown, and provided with two side ears and a finger, all of the above parts constructed and adapted to operate as described. 20

3. The combination, with the clip-bolt and thill-iron, of the spring-holder, curved as shown, and provided with two ears, a raised portion between the two ears, and a finger, all of the above parts constructed, combined, and
25 adapted to operate as described.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

LEWIS F. TAYLOR.
WILLIAM F. CLARK.

Witnesses:

S. ARNOLD,
FRED KIMBALL.