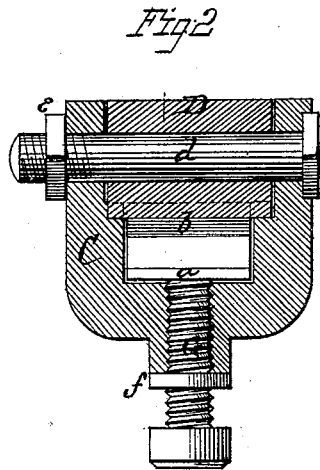
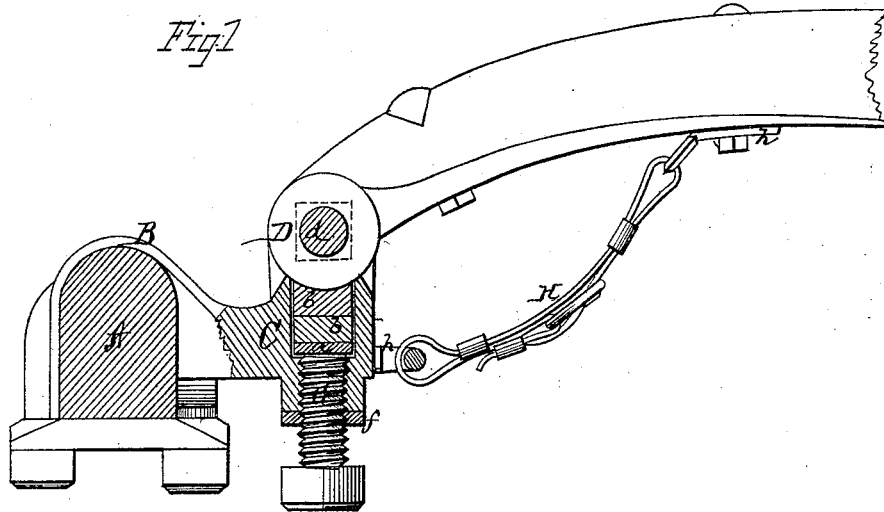


C. TWOMBLY.
Thill Coupling.

No. 112,989.

Patented March 21, 1871.



Witnesses.

Co. L. Evert,
Jas. C. Hutchinson

Inventor.

Chas. Twombly,
per,
Alexander Mason

Atty.

United States Patent Office.

CHARLES TWOMBLY, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 112,989, dated March 21, 1871.

IMPROVEMENT IN THILL-COUPPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, CHARLES TWOMBLY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Anti-rattling Thill-Couplings; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of an "anti-rattling thill-coupling," as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical section, and

Figure 2 a transverse section.

A represents the axle, upon which the clip B is firmly secured in any suitable manner.

The front end of the clip forms the head C, in which the thill-iron D is placed.

In the head C is a recess of suitable dimensions, in which is placed a metal follower, *a*, with one or more pieces, *b*, of rubber, leather, or other suitable material, on top.

From the inner side of the head a set-screw, G, passes upward into said recess and against the metal follower *a*.

The thill-iron D being inserted in the head C, and fastened by a bolt, *d*, and nut, *e*, the screw G is screwed

up so as to force the pieces *b* against the thill-iron, and thus prevent rattling.

The screw G is locked by means of the nut *f* on the same, as shown.

By means of this screw the shafts may be held, if so desired, at any angle, because the screw can be forced up so as to bring the piece *b* so tightly against the thill-iron as to prevent it from turning on the bolt *d*. This bolt is prevented from turning by means of a recess formed in the outer side of the head, of the same shape as the head of the bolt, into which recess said head will fit, and thus, when the nut *e* is screwed up, the bolt cannot turn and become loose.

The thill-iron D and head C are provided with loops *h h* for the connecting-strap H, as shown.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The recessed head C, provided with washer-head *b* and plate *a*, with the set-screw G and nut *f*, substantially as and for the purposes herein set forth.

2. The combination of the recessed head C with loop *h*, thill-iron D, follower *a*, piece *b*, screw G, and nut *f*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of February, 1871.

CHARLES TWOMBLY.

Witnesses:

P. E. TESCHEMACHER,

N. W. STEARNS.