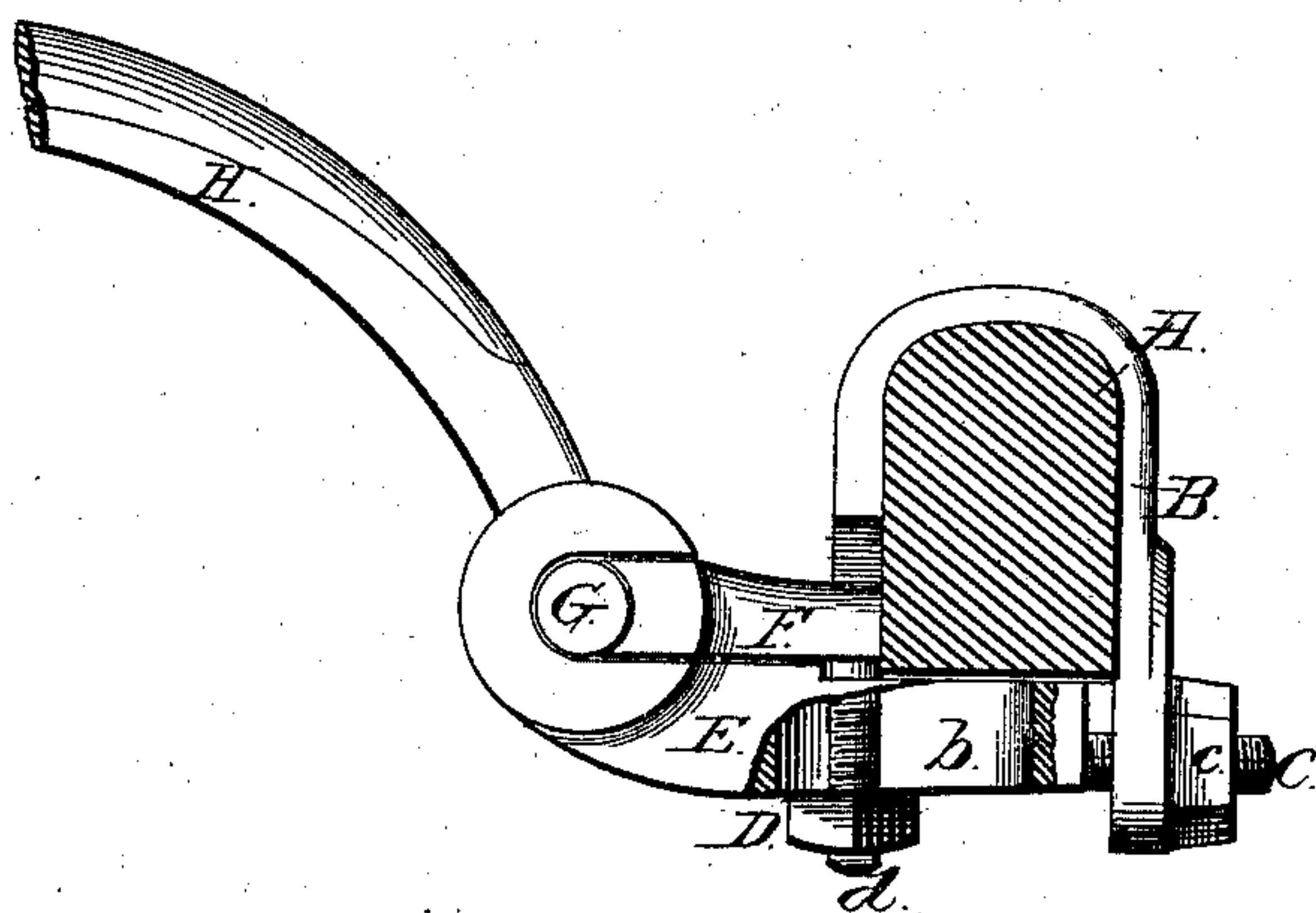


H. D. HAISTEN.  
THILL-COUPPLINGS.

No. 194,673.

Patented Aug. 28, 1877.



Witnesses:

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# UNITED STATES PATENT OFFICE.

HENRY D. HAISTEN, OF CUTHBERT, GEORGIA.

## IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **194,673**, dated August 28, 1877; application filed March 12, 1877.

*To all whom it may concern:*

Be it known that I, HENRY D. HAISTEN, of Cuthbert, in the county of Randolph and State of Georgia, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and the letters of reference marked thereon, which form a part of this specification, and which represents a side view, partly in section, of my improved thill-coupling.

The object of my invention is to attach a thill or shaft to the axle of a buggy or other vehicle in such a manner as to secure it firmly in position, and prevent the rattling incident to many couplings now in use, which increases the liability to breakage.

Its construction and operation are as follows:

A is the axle of a buggy or other vehicle. Around this is placed the clip B, the upper rear end of which has a perforation for the screw-threaded end C of the body E of the attachment. The other end, *d*, of the clip passes through a slot, *b*, in body E, and is secured by a nut, D. The end C of body E also has a tightening-nut, *e*. H is the end of the thill, which is pivoted at G in the end of body E, a sliding bearing-plate, F, being provided, which rests against the axle A.

From the foregoing description, and by ref-

erence to the drawing hereto annexed, the operation and advantages of my invention will be readily understood. By tightening the nut *e* (after the device has been placed in position, as shown in the drawing) the clip is tightened upon the axle, and the body E is, at the same time, forced in the direction of the arrow, and forcing the pivoted end G of thill H against the plate F, thus tightening the bearing and preventing rattling, both of the clip upon the axle and of the thill in its bearings.

The slot *b* in body E enables the tightening to be repeated as often as the parts become worn, thus making my improved coupling very durable.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The improved thill-coupling herein described, consisting of the body E, having slot *b* and screw-threaded end C, clip B, having screw-threaded end *d*, bearing-plate F, and nuts *e* D, all combined and operating substantially in the manner and for the purpose herein shown and specified.

2. In a thill-coupling constructed substantially as herein described, the slotted body-plate E, substantially as and for the purpose set forth.

H. D. HAISTEN.

Witnesses:

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