

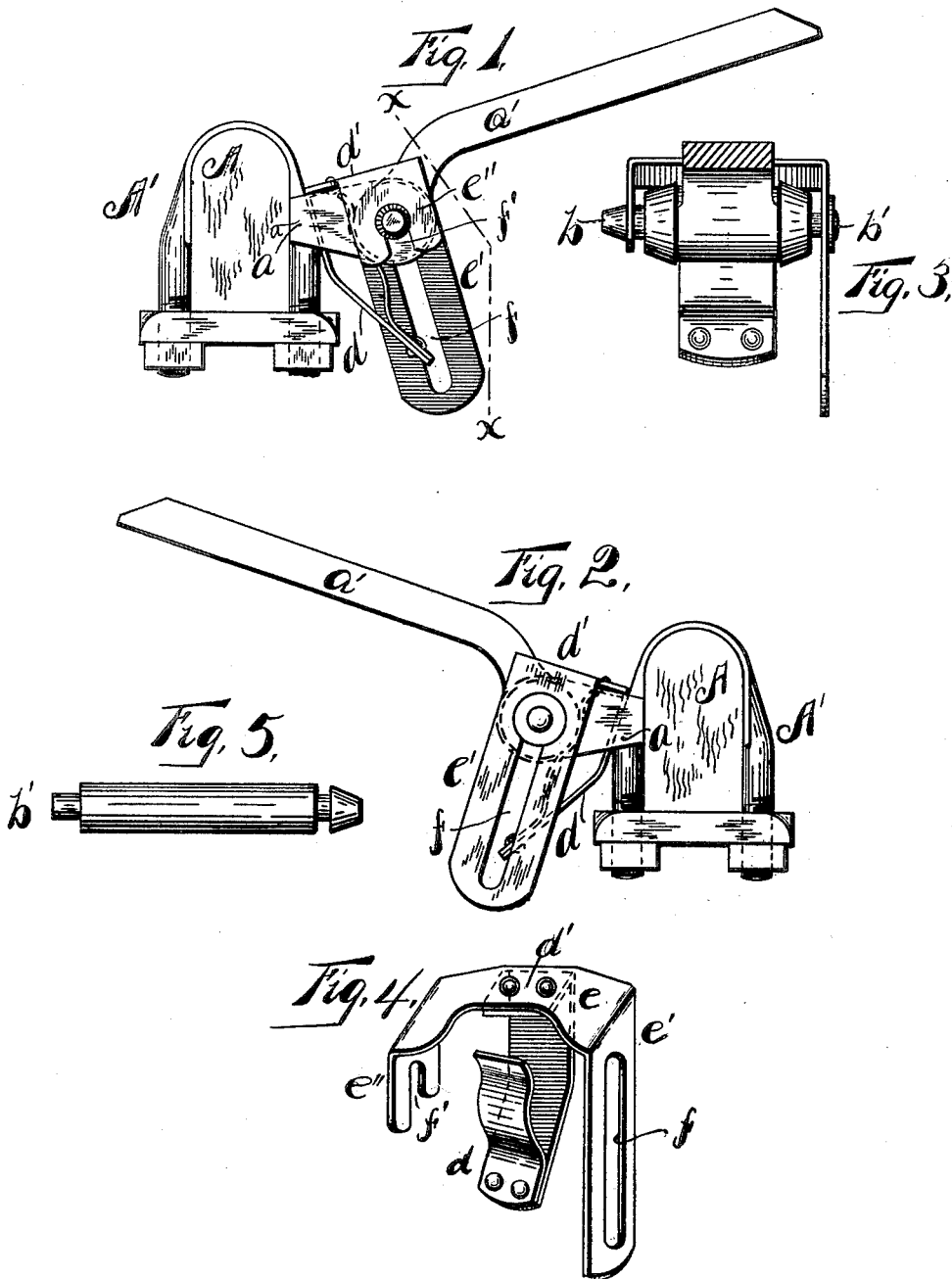
No. 649,722.

Patented May 15, 1900.

G. H. FERNALD.
THRILL COUPLING.

(Application filed Feb. 5, 1900.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE HENRY FERNALD, OF NORTH EAST, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 649,722, dated May 15, 1900.

Application filed February 5, 1900. Serial No. 3,940. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HENRY FERNALD, of North East, in the county of Erie, in the State of Pennsylvania, have invented new and useful Improvements in Quick-Shift Antirattling Thill-Couplings, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention relates to improvements in quick-shift antirattling thill-couplings.

My object is to improve their detail construction and general utility, thereby enabling me to produce such a device which is 15 cheap and durable in its construction and effective in its operation; and to that end my invention consists in the several other new and novel features of construction and operation which are hereinafter described, and more 20 specifically set forth in the claim hereunto annexed. It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 shows one side of the quick-shift 25 antirattler as it appears in operation. Fig. 2 is a view of the opposite side. Fig. 3 is a section on line *x x*, Fig. 1. Fig. 4 is a view of the antirattling-spring with the bolt-hole attachment secured thereto detached. Fig. 30 5 is a view of the bolt detached.

A is the axle, and A' the clip, to which the thill-eyes *a* are secured in the ordinary way.

a' is a thill-iron having an eye in the ordinary way and adapted to rest between the 35 two arms of the thill-eye, as usual.

b is the thill-bolt, having a head *b'* at one end and annular recesses *c* and *c'* adjacent the ends, as shown at Fig. 5.

d is a V-shaped spring constructed substantially as shown at Fig. 4 and having the 40 upper end of the post elongated, as shown at

d', by which it is secured to a bracket *e*. This bracket *e* has arms upon each side, *e'* and *e''*, the arm *e'* having an elongated closed slotway *f* and the arm *e''* an open slotway *f'*. 45 The bolt *b* is mounted at one end within the slotway *f* of the arm *e'* at the recess formed just inside of the head of the bolt, so that the antirattling-spring and the bracket with the bolt form an article of commerce and may 50 be put upon any pair of shafts.

The invention is operated as follows: When the thill-iron is put in position, the bolt is passed through in the ordinary way. The antirattling-spring *d* is then forced down be- 55 tween the end of the thill-iron and the clip in the ordinary way, and the arm *e''* passes down to engage the annular groove or recess in the free end of the bolt and prevents it from withdrawal, and it is further prevented from 60 withdrawal by the groove or recess formed just inside of the head *b*.

Having described my invention, what I claim, and desire to secure by Letters Patent, is— 65

A quick-shift antirattling thill-coupling, a V-shaped spring having a bracket secured at substantially right angles thereto, said bracket having downwardly-extending arms, one provided with a closed slotway, and the 70 other with an open slotway, and a bolt having an annular recess adjacent one end and traveling in said closed slotway, said bolt being permanently connected to said bracket for the purposes specified. 75

In witness whereof I have hereunto set my hand this 2d day of February, 1900.

GEORGE HENRY FERNALD.

Witnesses:

ANNA M. SELKREGG,
J. L. GREEN.