

C. St. JAMES.

Improvement in Thill Coupling.

No. 122,974.

Patented Jan. 23, 1872.

Fig. 1

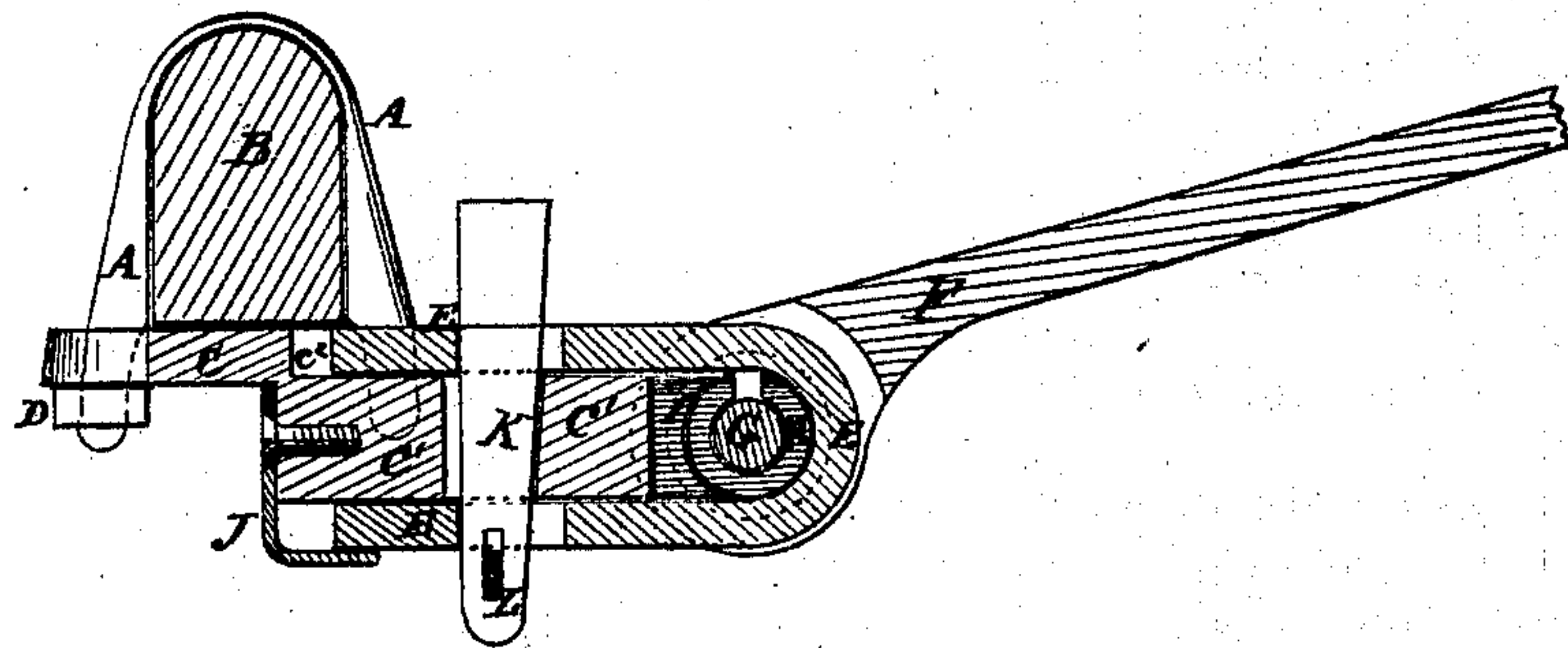
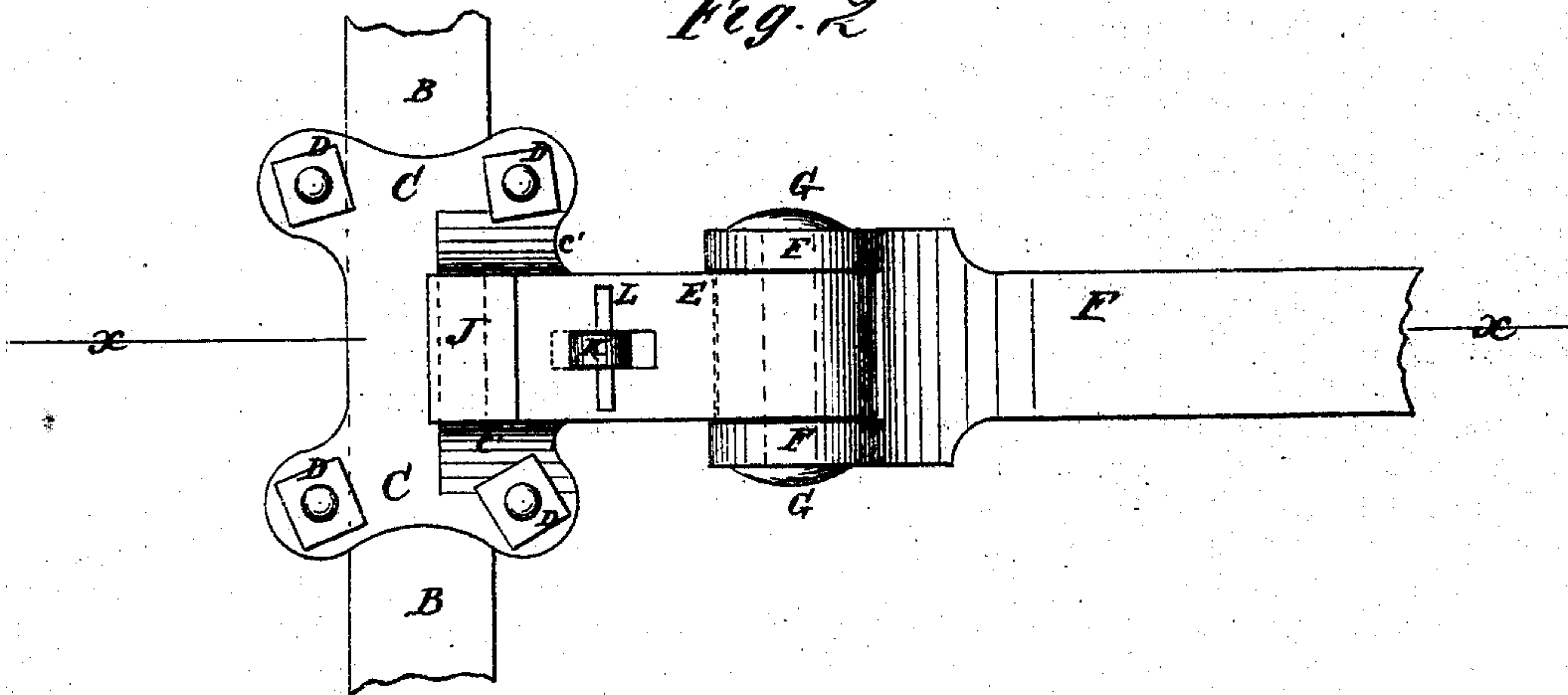


Fig. 2



Witnesses:

A. W. Almqvist
Francis M. Ardes.

Inventor:

Clement St. James.

PER

Munroe
Attorneys.

UNITED STATES PATENT OFFICE.

CLEMENT ST. JAMES, OF PITTSFIELD, MASSACHUSETTS.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. 122,974, dated January 23, 1872.

Specification describing certain Improvements in Thill-Couplings, invented by CLEMENT ST. JAMES, of Pittsfield, in the county of Berkshire and State of Massachusetts.

Figure 1 is a detail sectional view of my improved coupling taken through the line *x x*, Fig. 2. Fig. 2 is an under-side view of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of my improved thill-coupling patented January 18, 1870, and numbered 99,025, so as to make it simpler and less expensive in construction, more convenient in use, and more effective and reliable in operation; and it consists in the construction and combination of various parts of the coupling, as hereinafter more fully described.

A are two clips that pass over the axle B, and the lower ends of which pass through the holes in the yoke-plate C, and have nuts D screwed upon them. Upon the forward part of the yoke-plate C is formed a projection, *c'*, of such a size as to fit into the bent or U-shaped bar E. F is the thill-iron, the lugs of which are at such a distance apart as to receive the bend of the U-shaped bar E between them, and have holes formed in them to receive the bolt or pin G, which passes through the bend of the bar E. H is an open tubular washer, made of rawhide, and of such a size as not to quite meet around the pin or bolt G, and at the same time to fit into and fill the space between the said pin or bolt and the inner surface of the bend of the bar E. I is a block of rubber, leather, or other suitable material, which is fitted upon or may be attached to the open tubular washer H. The face of the block I rests against the face of the projection *c'*, as shown in Fig. 1. The adjacent faces of the block I and projection *c'* may be both square, or one may be grooved or concaved and the other ribbed or convexed, so as

to keep the said block I paralalled with the bolt or pin G. The rear end of the upper end of the U-shaped bar E enters a recess, *c''*, formed in the upper side of the yoke-plate C, and extending for about three-eighths of an inch beneath the axle B, to hold the said arm to its place, and prevent the bent bar E from being straightened by the operation of driving out the key. J is a guard attached to the rear end of the projection *c'* of the yoke-plate C, the lower part of which is bent forward to overlap and support the rear end of the lower arm of the U-shaped bar E, to prevent the said bar E from being straightened by the operation of driving in the key. K is a wedge-shaped key, which is driven in through slots in the arms of the U-shaped bar E, and in the projection *c'* of the yoke-plate C, to draw the bar E and block I firmly to their seats, and press the open tubular washer H closely around the bolt or pin G, making all snug and tight. As the bolt or pin G wears, the wedge-key K may be driven further in, which draws the open tubular washer H more closely around the bolt or pin G, and thus takes up the wear. The wedge-shaped key K may be secured in place by a leather key, L, passed through a slot in its lower end, as shown in Figs. 1 and 2.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, in a thill-coupling, of the axle B, clips A A, and U-shaped bar E with a one-piece yoke-plate, made up of two parts, *c* and *c'*, which are constructed of different heights, so as to receive the said bar E in a recess, *c''*, formed by said yoke-plate and the axle, all as described, and for the purpose of enabling the bar E to be held firmly in the position desired.

CLEMENT ST. JAMES.

Witnesses:

DANIEL JURDAN,
ROBERT ST. JAMES.