

W. W. FRENCH.
Thill-Coupling.

No. 227,237.

Patented May 4, 1880.

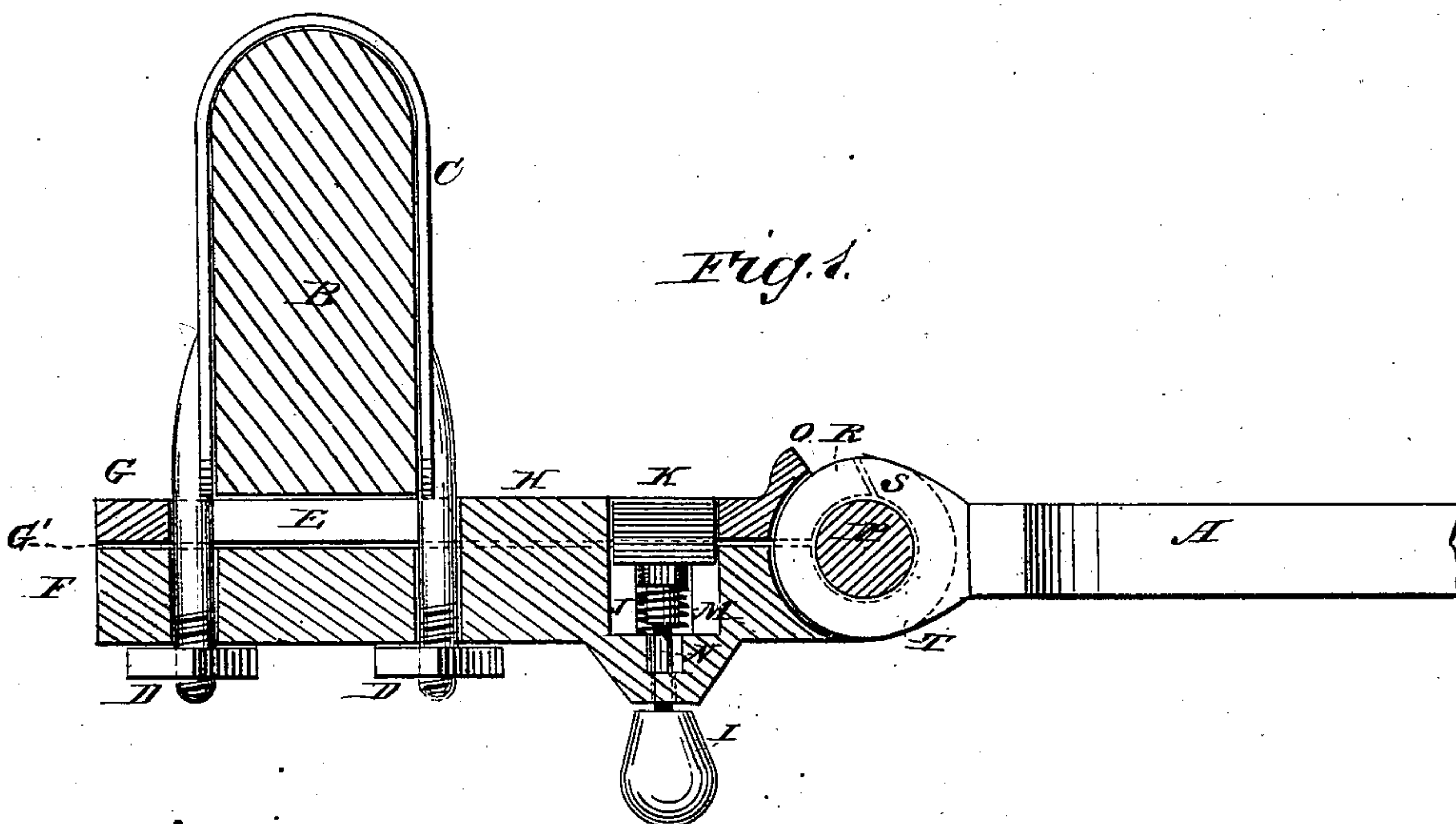
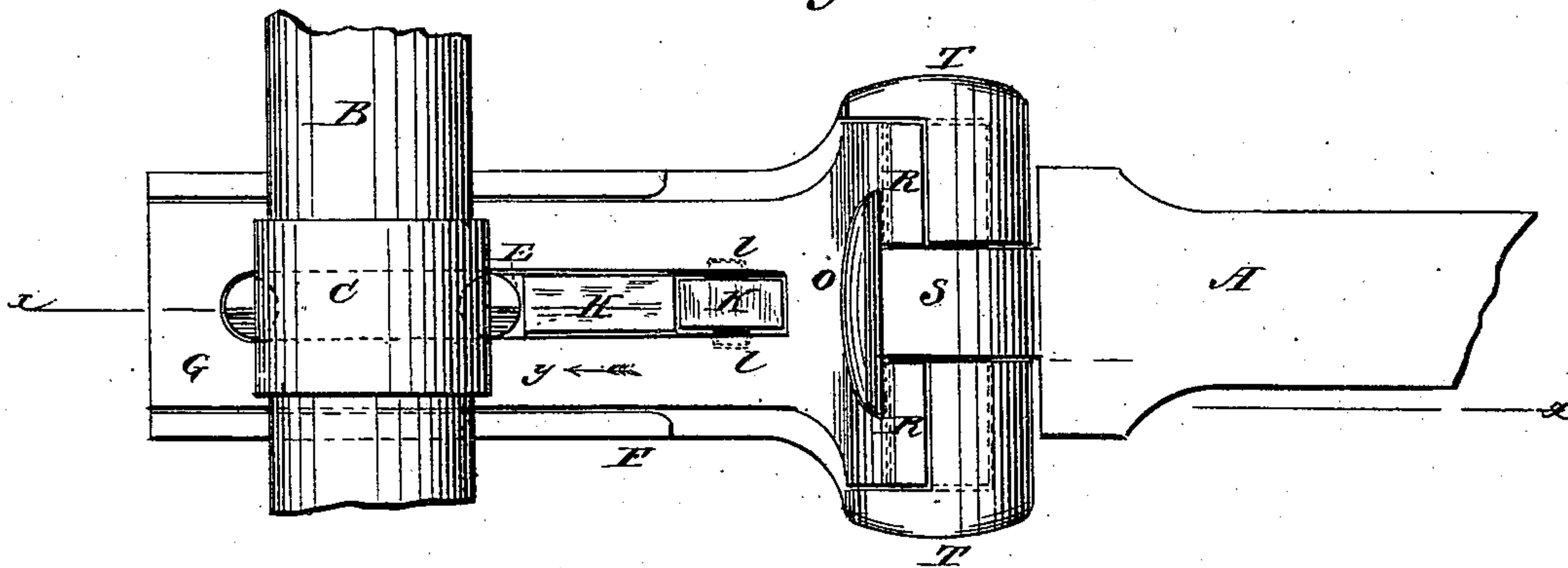


Fig. 2



WITNESSES:

Francis McArdle.
C. Seegarick

INVENTOR:

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UNITED STATES PATENT OFFICE.

WILLIAM W. FRENCH, OF STOCKBRIDGE, MASSACHUSETTS, ASSIGNOR TO
HIMSELF, ELIAS W. PECK, AND CHESTER B. SCUDDER.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 227,237, dated May 4, 1880.

Application filed September 22, 1879.

To all whom it may concern:

Be it known that I, WILLIAM W. FRENCH, of Stockbridge, in the county of Berkshire and State of Massachusetts, have invented a new and Improved Thill-Coupling, of which the following is a specification.

The object of my invention is to provide an improved coupling for the shafts of a wagon, so that the same can be readily fastened to or unfastened from the axle.

The invention consists in the combination, with the axle-clip and knuckle-joint, of a sliding bearer and spring-catch to facilitate the opening and closing of the coupling, as will be hereinafter fully described.

In the drawings, Figure 1 is a vertical longitudinal section on line *xx*. Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

A is an iron bar, which has an eye, S, and a pintle, P, at its end, and is fastened to the rear end of the shaft. The eye and pintle fit into the knuckle-joint T.

B is the axle, to which, by means of the clip C and nuts D D, the bar F is fastened. The upper surface of the bar F is grooved, and in this groove the slotted bar G slides. This slide-bar G is provided with a slot, E, projection O, and overlapping curved flanges R R.

K is a catch, which is operated by the spiral spring M which encircles the pin N and the knob I, and is guided by the small side projections, *l l*. H is a stop secured to or formed upon the bar F, and prevents the slide-bar G from being drawn back too far.

The operation is as follows: If it is desired

to take the shaft from the axle, the knob I is drawn downward, so that the spring M is depressed, and the catch K rests in cavity J, formed to receive it. If the catch K is depressed it will release the slide G, and the same can be pushed in the direction of the arrow *y*, by means of the projection O, until it meets the stop H. By drawing back the slide G and the overlapping curved flanges R R, which are fixed to it, the knuckle-joint is opened, and the eye S and pintle P, which are fixed to the bar H, can easily be taken out of the joint. If the shaft is to be replaced, the parts R and P are placed in the knuckle-joint, and the slide G pushed in a direction contrary to that of the arrow, so as to close the joint. As soon as the forward end of the slot E is over the forward end of the catch K the spring M will force the catch upward, which holds the slide in position, prevents any motion of the same, and keeps the joint closed. Shafts can thus be detached and replaced in an instant without any trouble, and by means of a very simple mechanism, which can be applied to any shaft and axle.

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

In a thill-coupling, the slide-bar G, having slot E, projection O, and overlapping curved flanges R, in combination with clip C, grooved bar F, stop H, spring-catch K, and knuckle-joint T, as and for the purpose specified.

WILLIAM WARREN FRENCH.

Witnesses:

FRANK H. RATHBUN,
FRED G. RATHBUN.