

(No Model.)

G. L. & F. S. BLACKMAN.

THILL COUPLING.

No. 413,487.

Patented Oct. 22, 1889.

Fig. 1.

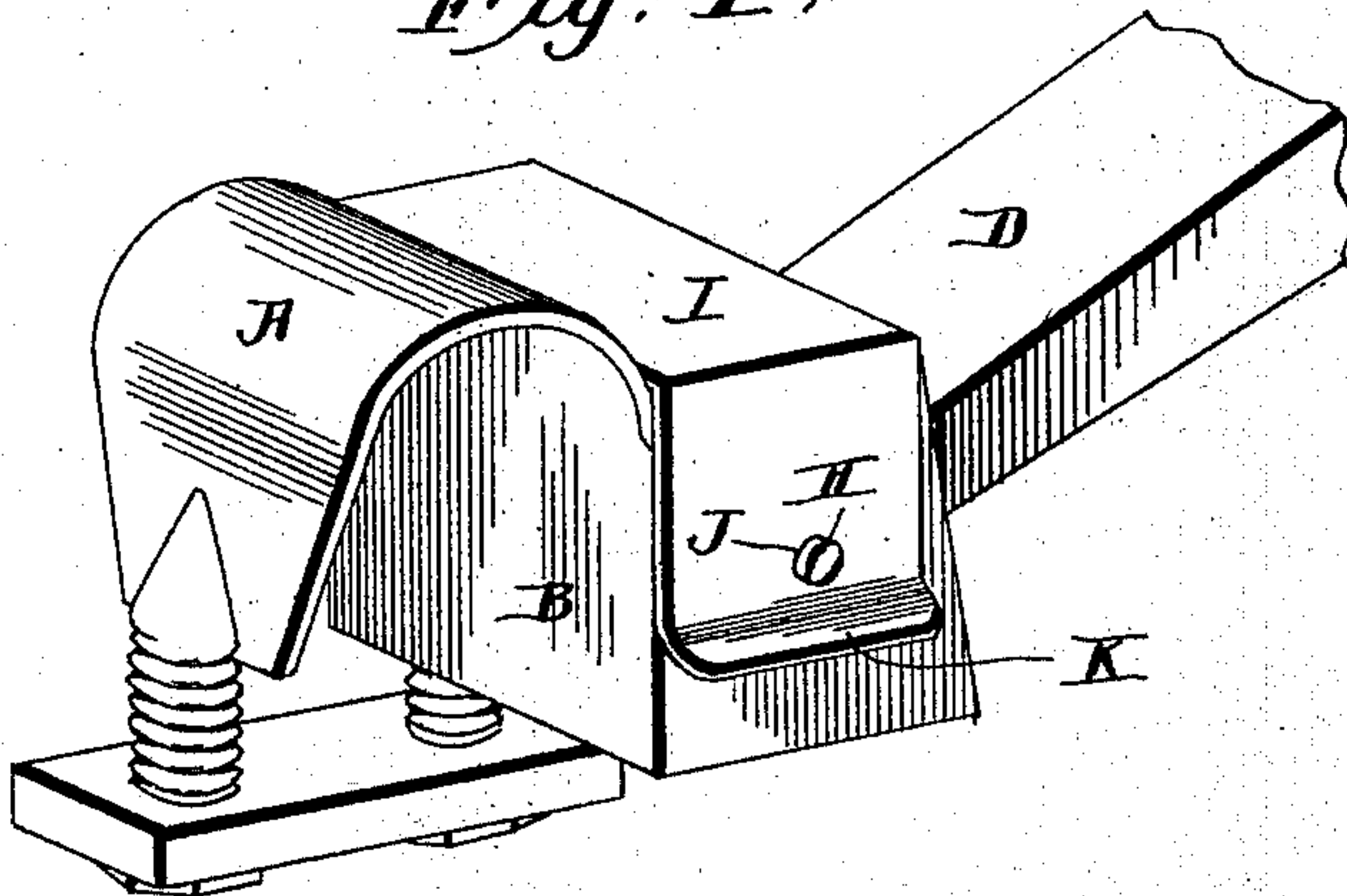


Fig. 5

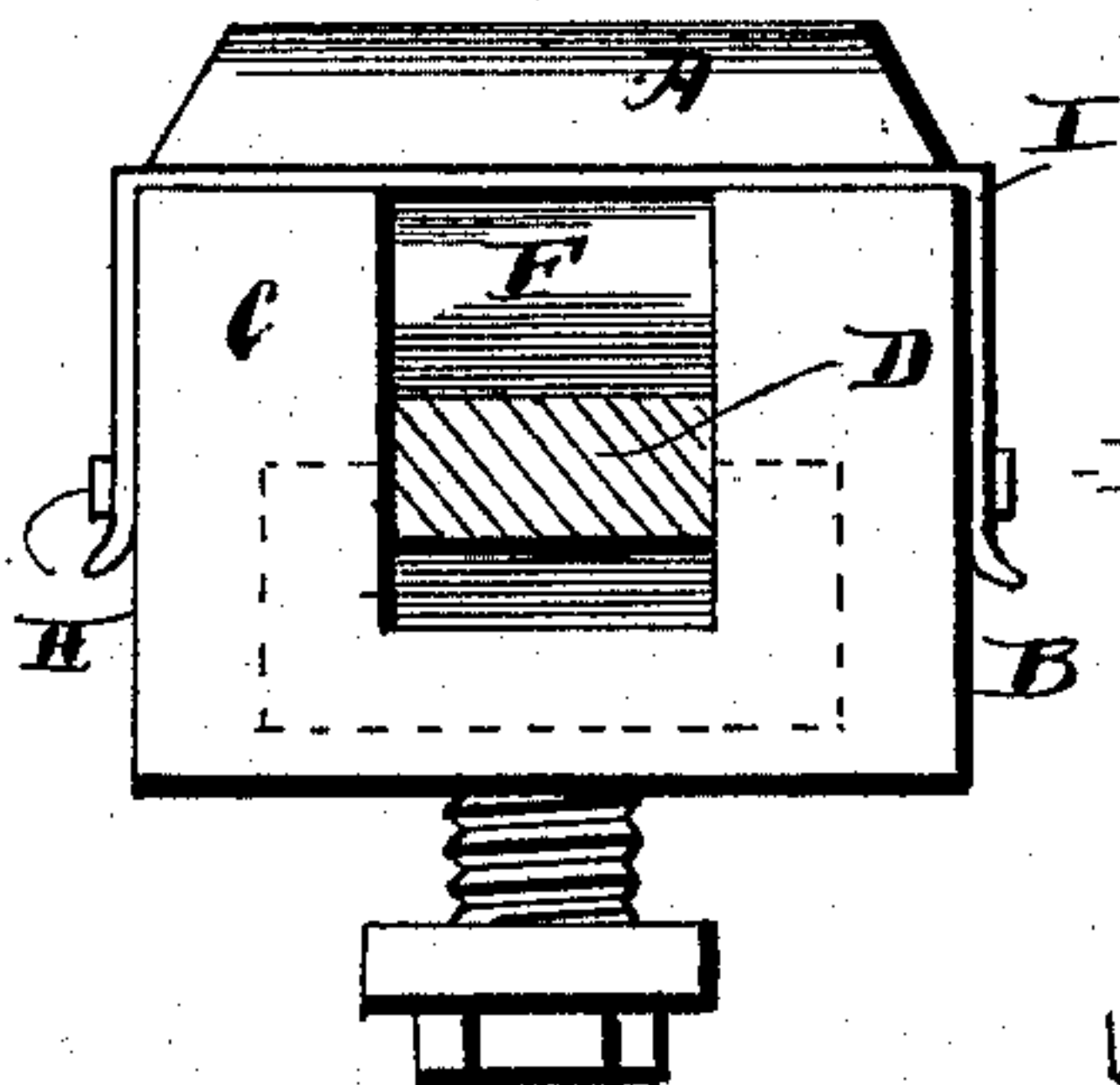


Fig. 2

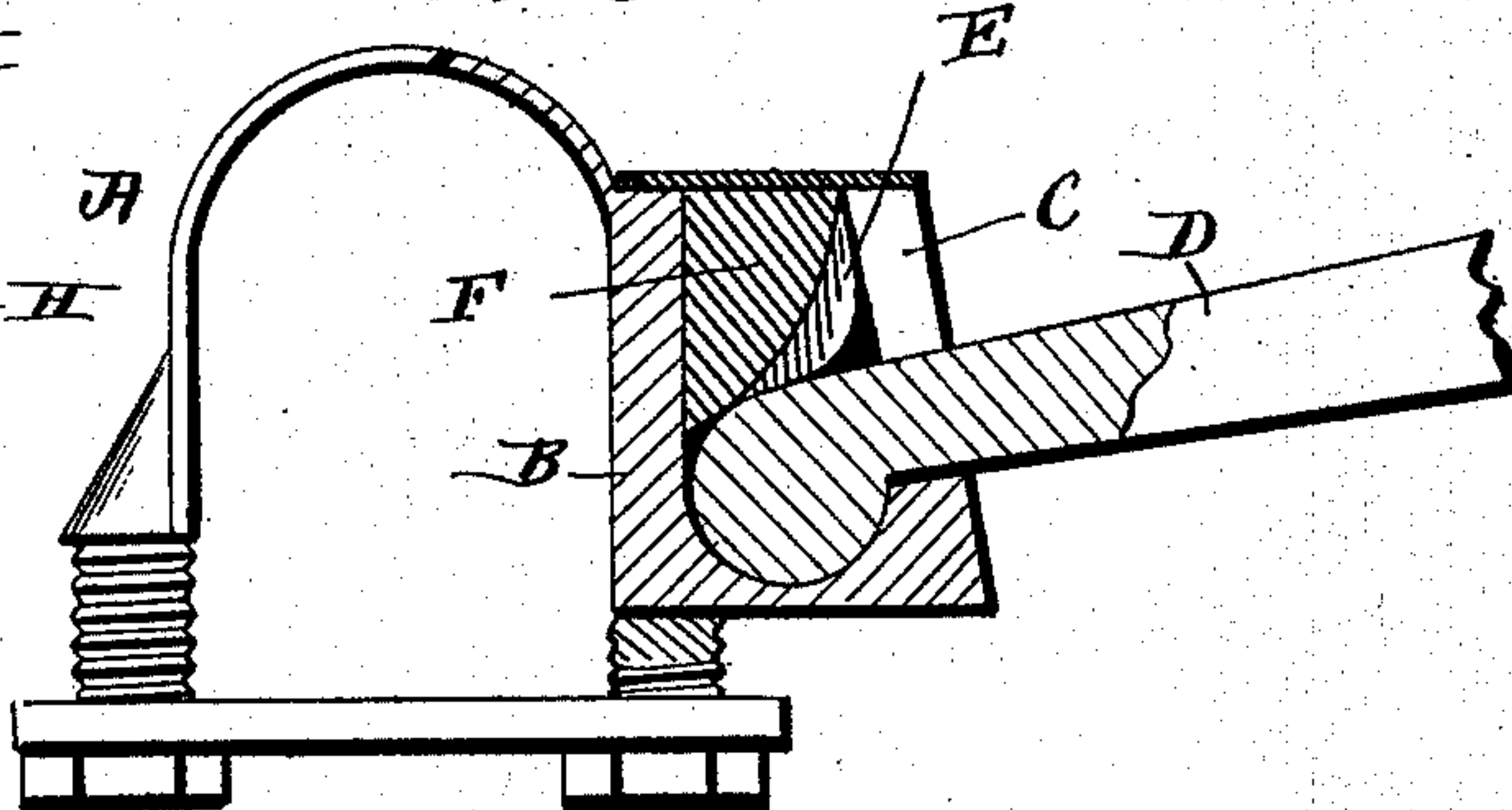


Fig. 3.

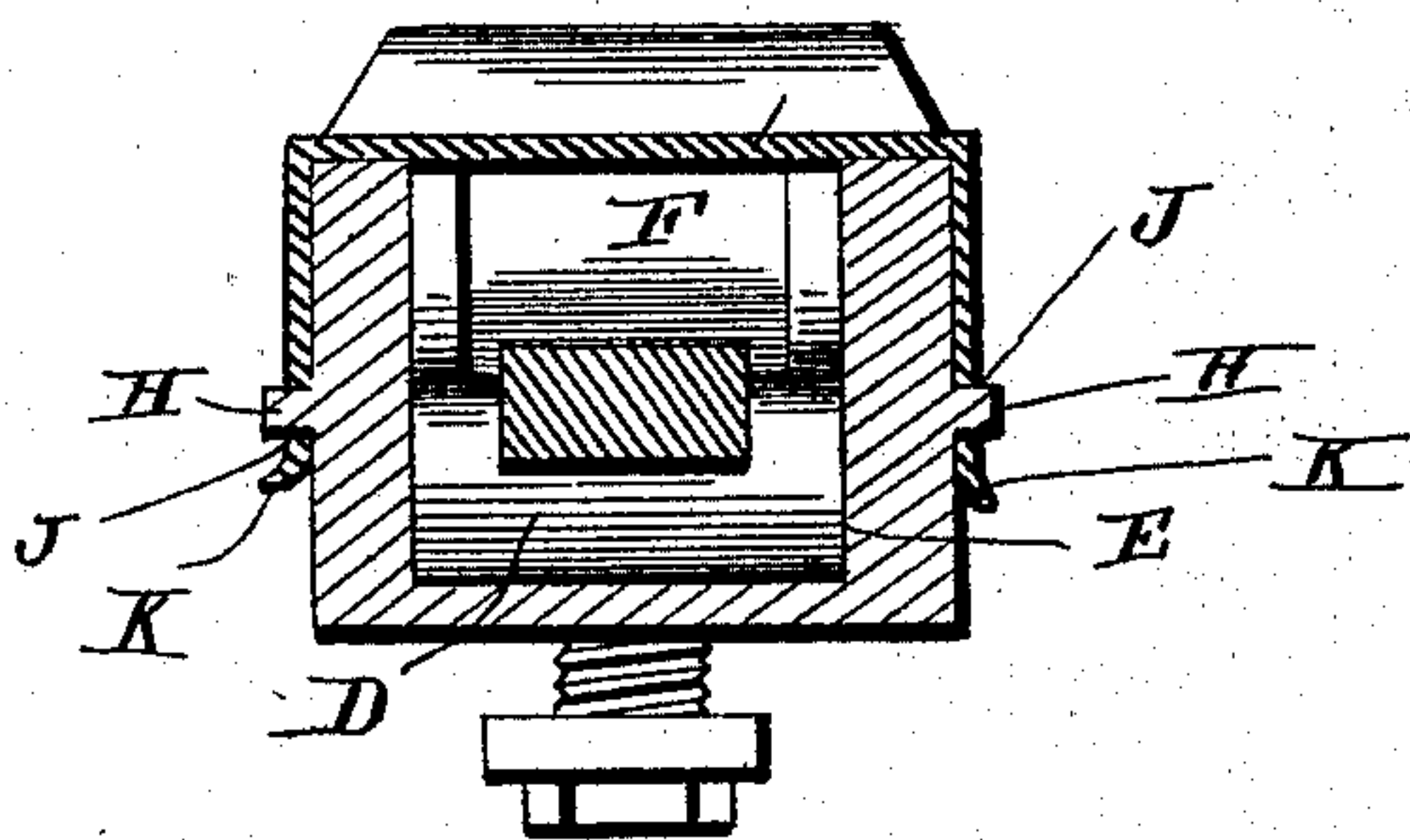
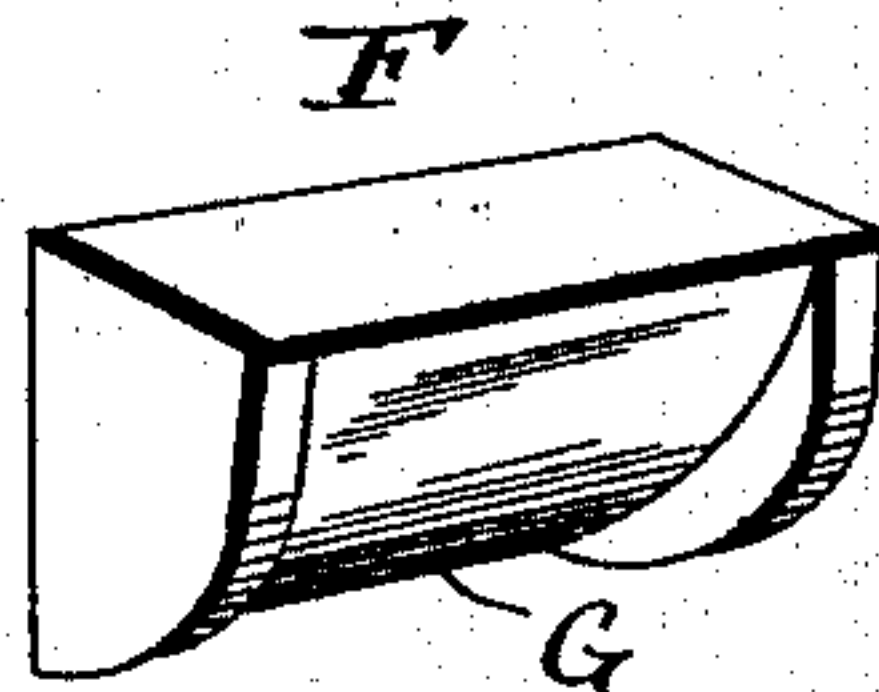


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE L. BLACKMAN AND FRED. S. BLACKMAN, OF PORT ALLEGANY,
PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 413,487, dated October 22, 1889.

Application filed March 26, 1889. Serial No. 304,792. (No model.)

To all whom it may concern:

Be it known that we, GEORGE L. BLACKMAN and FRED. S. BLACKMAN, citizens of the United States, residing at Port Allegany, in the county of McKean and State of Pennsylvania, have invented a new and useful Thill-Coupling, of which the following is a specification.

Our invention relates to improvements in thill-couplings of the type shown in Letters Patent No. 387,620, granted to F. S. Blackman on August 14, 1888; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of our improved thill-coupling. Fig. 2 is a vertical longitudinal section. Fig. 3 is a vertical transverse section, and Fig. 4 is a detail perspective view of the cushion or anti-rattler. Fig. 5 is a front elevation of the coupling with the thill-iron in section.

The clip A is of the usual construction, and the box B is formed integral therewith or otherwise secured thereto and projects forward therefrom, as clearly shown. The box B is provided in its front side with a vertical notch C, through which the thill-iron D passes, and the interior of the box is hollow and so constructed as to provide the vertical grooves E in the inner faces of the side walls of the box, which receive the lateral lugs E at the end of the thill-iron. The cushion or anti-rattler F consists of a block of rubber or other suitable material of a proper size to fit snugly in the box above the thill-iron and having its lower side tapered, as shown at G, so as to fit over the rounded end of the thill-iron and hold the same snugly in the box, and thereby prevent its rattling. The box is provided on its sides with the laterally-projecting studs or pins H, which are engaged by a spring-latch or keeper I, as shown. The said latch or keeper consists of a single strap having its ends bent downward and provided with the perforations J, adapted to engage the studs H, and having their extremities turned slightly outward, as shown at K, so that they

may be easily manipulated to be disengaged from the studs.

When it is desired to couple the thills or shafts to the axle, the end of the thill-iron is passed downward in the box and a cushion or anti-rattler then placed in position over the end of the thill-iron. The spring-latch or keeper is then slipped over the end of the box until its ends automatically engage the studs or pins H, when the coupling will be completed. To uncouple the thills from the axle, the reverse operation is performed.

It will be observed from the foregoing description, taken in connection with the accompanying drawings, that we have provided a device which is composed of few parts simple in their construction and compactly arranged, by which the thills can be quickly and easily coupled to the axle or uncoupled therefrom.

When the device is coupled, the spring-latch or keeper will effectually hold the anti-rattler onto the thill-iron and secure the thill-iron in the box. The tendency of the thill-iron and of the cushion or anti-rattler would be to press the spring-latch or keeper upward, and this tendency draws the ends of the keeper firmly against the studs, so that the device cannot be accidentally uncoupled. In our improved coupling, furthermore, there are no projecting parts which are liable to be broken and thereby destroy the efficiency of the device.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination of the box adapted to receive the thill-iron and having the lateral studs H on its sides, the anti-rattler fitting snugly in the box, and the spring-keeper extending across the top of the box and having its ends bent downward and provided with perforations adapted to engage the studs H on the sides of the same, as set forth.

2. The improved thill-coupling comprising the box having the notch C in its front side to receive the thill-iron and having vertical grooves in its side wall to receive the lugs at the end of the thill-iron, the anti-rattler fitting

snugly in the box above the thill-iron and
having its lower side cut away to fit over the
rounded end of the thill-iron, the studs H on
the sides of the box, and the spring-keeper
5 extending over the box and having its ends
bent down and provided with perforations
engaging said studs, as specified.

In testimony that we claim the foregoing as

our own we have hereto affixed our signatures
in presence of two witnesses.

GEORGE L. BLACKMAN.
FRED. S. BLACKMAN.

Witnesses:

C. W. CATLIN,
W. H. MANNING.