

(No Model.)

A. HOMEWOOD.
THILL COUPLING.

No. 405,414.

Patented June 18, 1889.

Fig. 1.

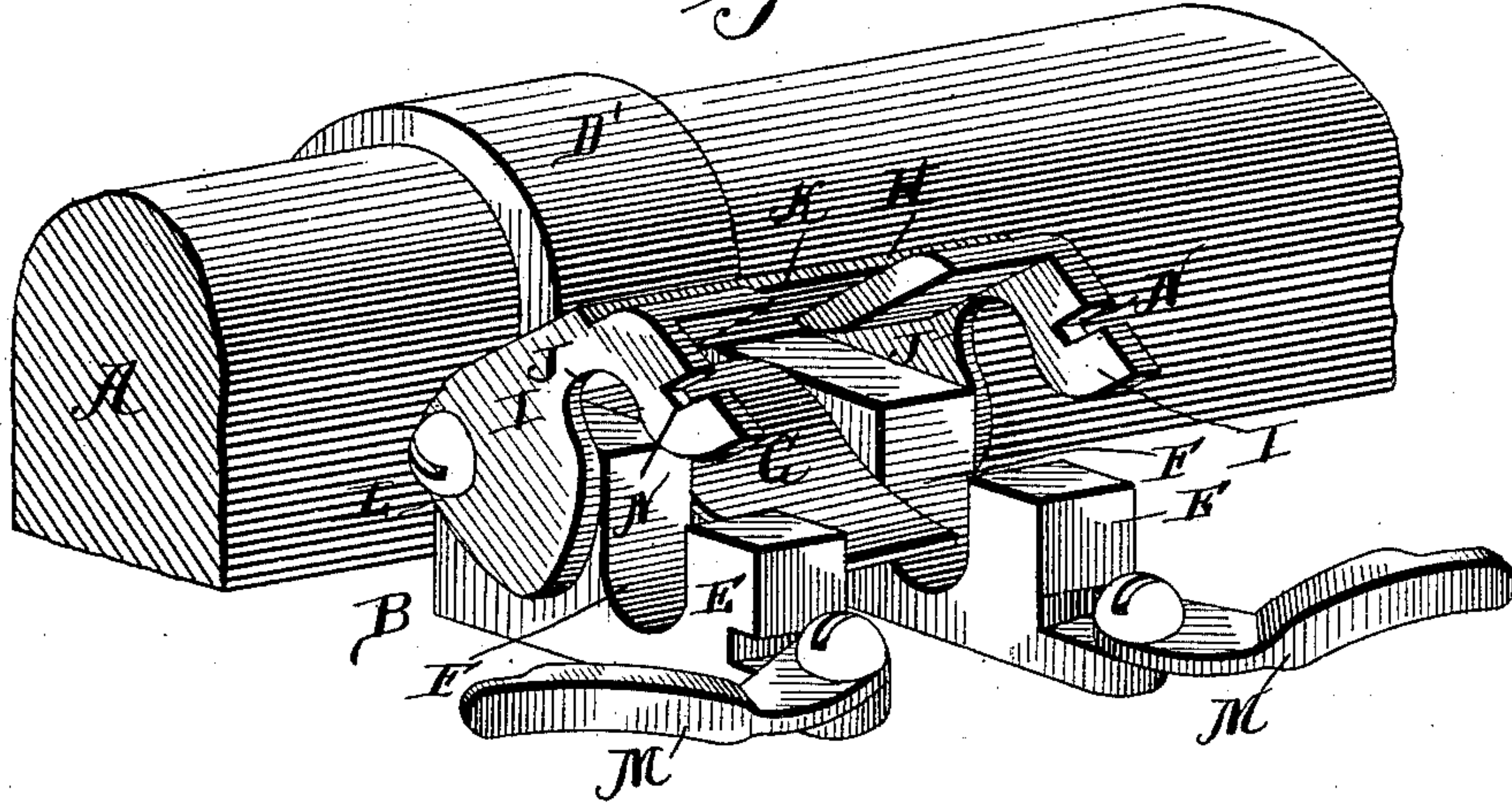


Fig. 2.

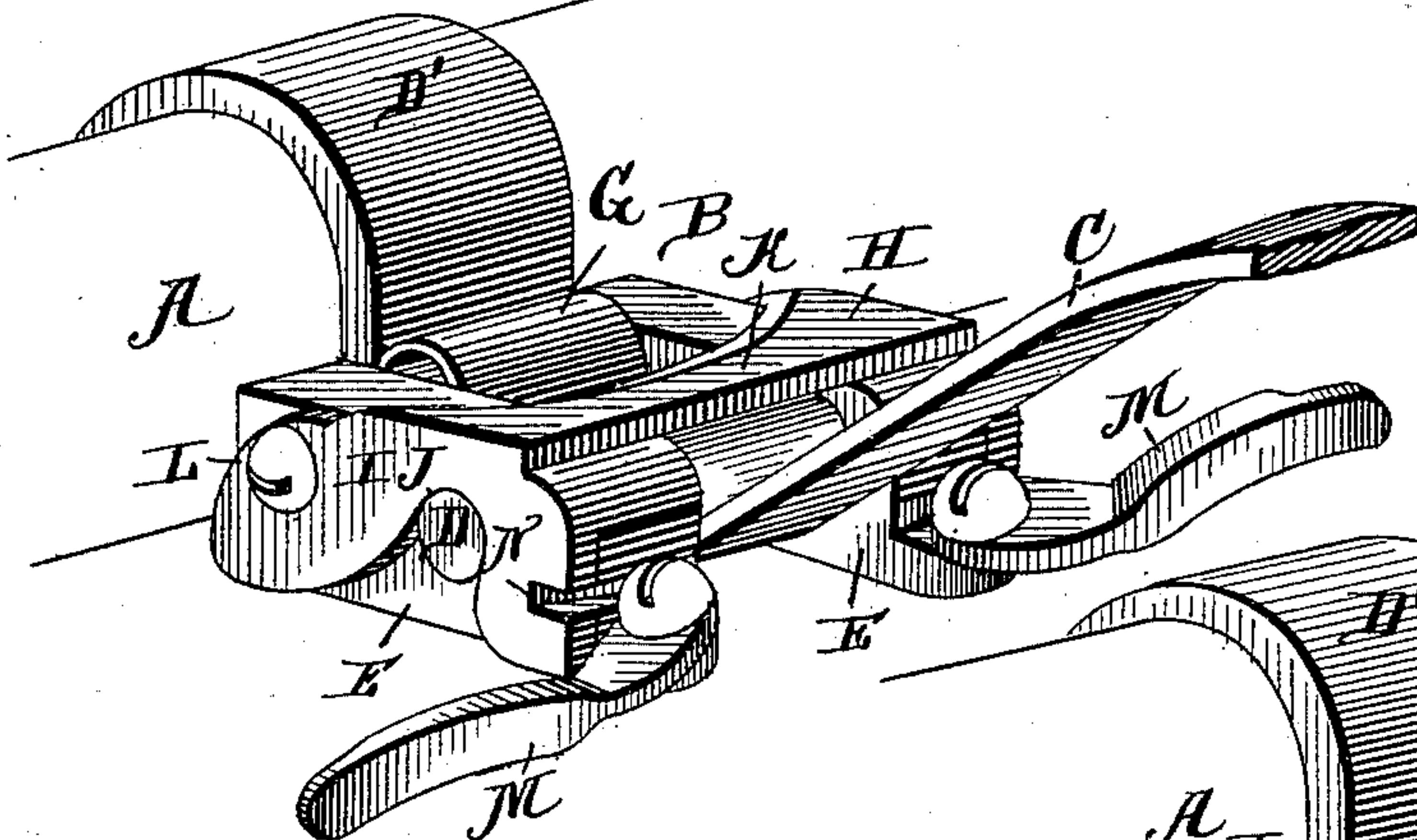


Fig. 3.

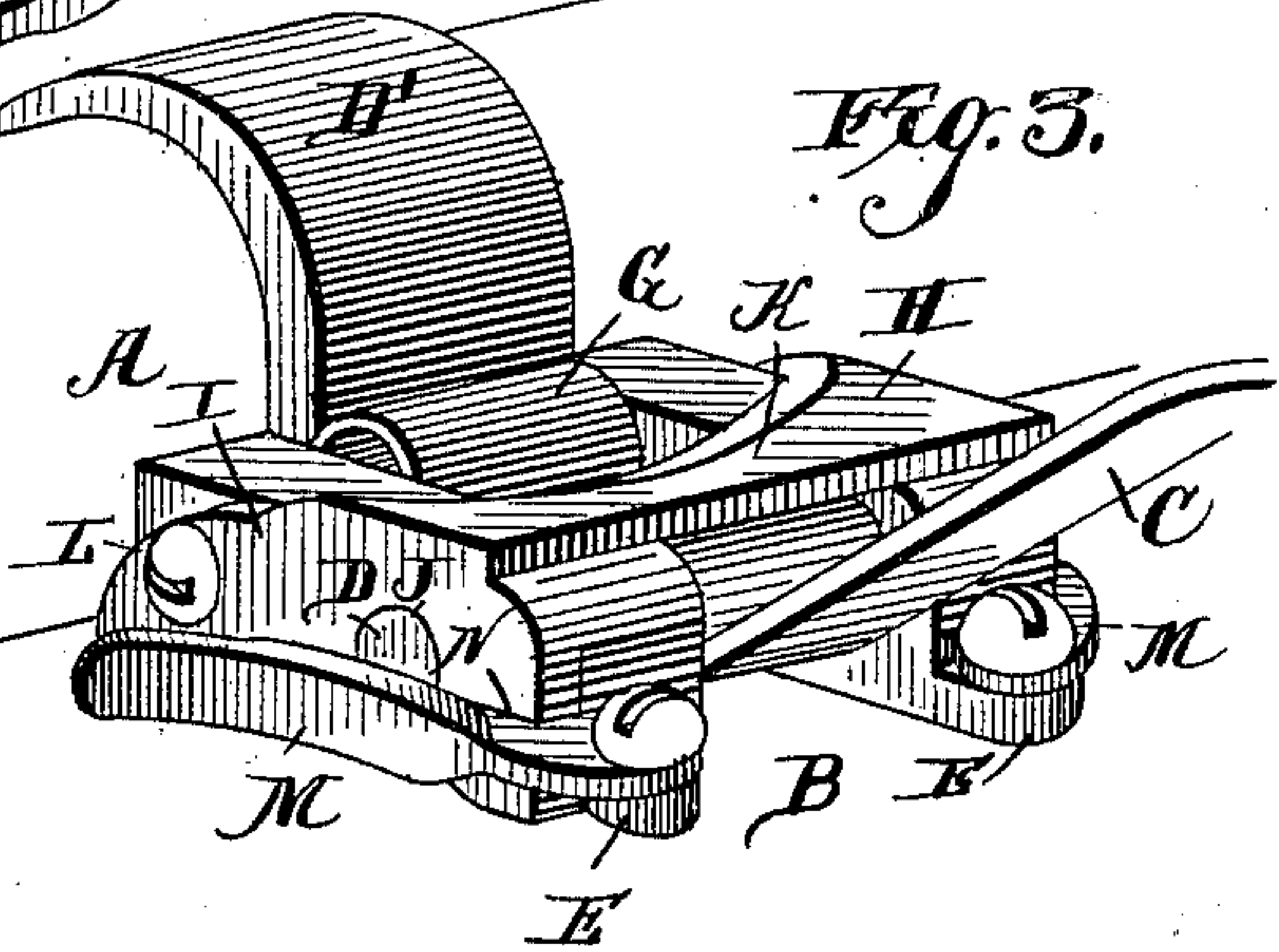
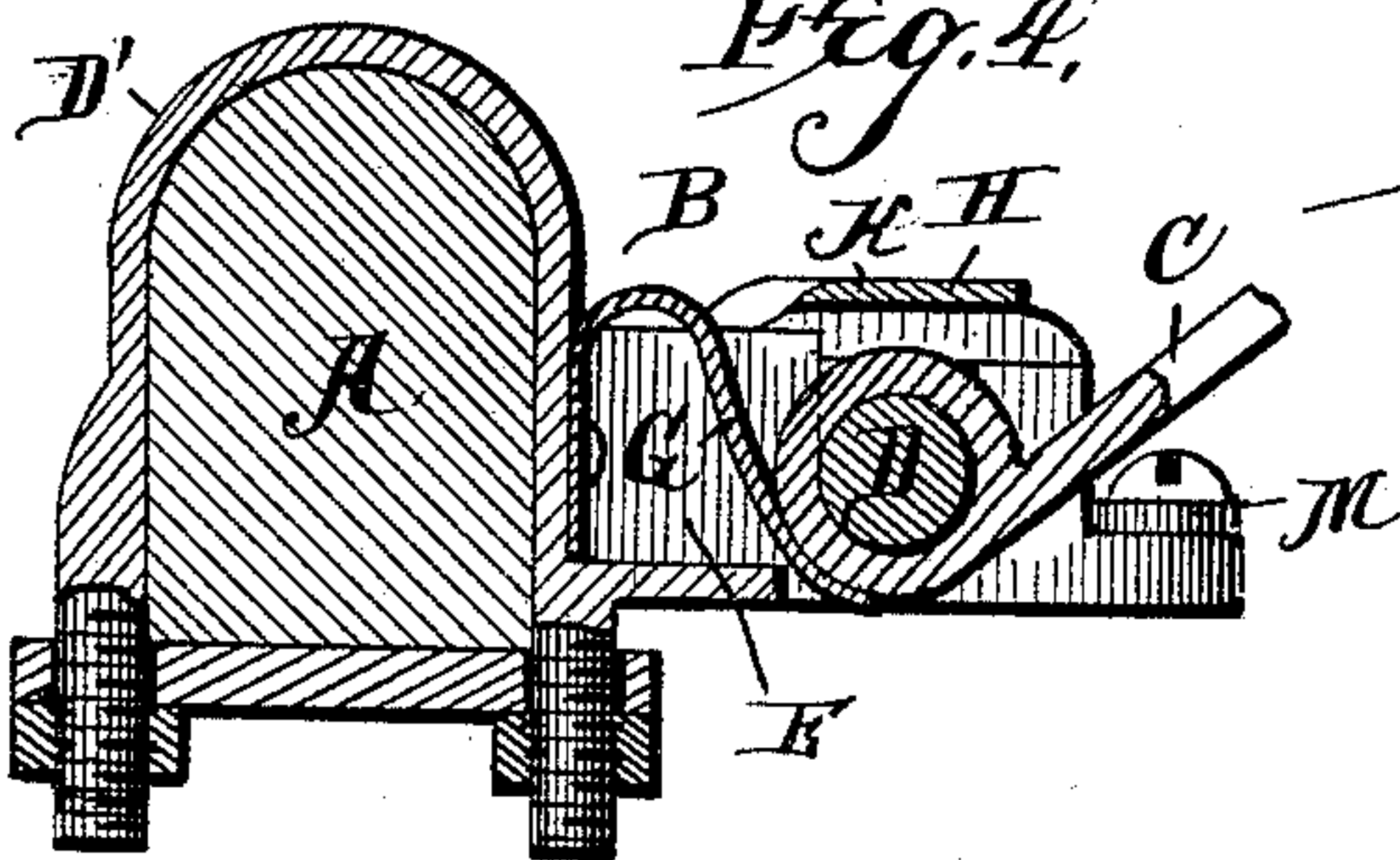


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

ARTHUR HOMEWOOD, OF WILMINGTON, DELAWARE, ASSIGNOR OF ONE-HALF TO WILLIAM S. HAINES, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 405,414, dated June 18, 1889.

Application filed March 13, 1889. Serial No. 303,099. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR HOMEWOOD, a citizen of the United States, residing at Wilmington, in the county of New Castle and State of Delaware, have invented new and useful Improvements in Thill-Couplings, of which the following is a specification.

My invention relates to improvements in thill-couplings; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of the coupling, showing the parts arranged to receive the thill. Fig. 2 is a similar view showing the thill applied and the cap thrown down over the thill. Fig. 3 is a similar view of the coupling completed. Fig. 4 is a longitudinal vertical section.

In the drawings, A designates the front axle, and B the thill, both of the usual construction. The thill-iron C, secured to the thill, is provided at its rear end with the transverse pin D, as shown. The clip D' is secured on the axle in the usual manner, and is provided on its front side with the forwardly-projecting bearing-arms E, provided in their upper sides with notches F, which receive the ends of the pin D at the end of the thill-iron. The anti-rattling spring G is secured to the front side of the clip between the bearing-arms E and bears against the thill-iron, as will be readily understood. A cap or clamp H is pivoted to the outer sides of the bearing-arms E, and consists of a casting having the side bars I, provided with the notches J in their lower edges, and the cross-bar or cover K, extending between the side bars. The rear ends of the side bars are pivoted to the outer sides of the bearing-arms, as shown at L, and the notches J register with the notches F in the bearing-arms, so that when the cap is lowered the side bars of the cap will engage over the ends of the pin D, and the thill-iron will be thereby secured. Upon the upper sides of the bearing-arms, at the front ends of the same, I pivot the locking-levers M, the inner edges of which are adapted to engage recesses N in the front edges of the side bars of the cap, and thereby lock the cap, so that the thill cannot be accidentally released. The locking-levers are of a proper shape to pass around the front edges of the

side bars of the cap and lie close against the same, so as to occupy but little room, and their free ends are bent slightly outward, so as to be easily grasped when it is desired to release the thill.

In practice, when it is desired to couple the thill to the axle with my improved device, the end of the thill-iron is inserted between the bearing-arms, with the ends of the pin D resting in the notches F of the bearing-arms. The cap is then turned down, as shown in Fig. 2, so that the notches J will engage over the ends of the said pin and clamp it in the notches F. The locking-levers M are then turned backward, so as to engage the recesses or notches N in the side bars of the cap, and thereby prevent the cap being accidentally raised, so as to release the thills. When it is desired to disconnect the thills, the reverse operation is performed, as will be readily understood.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that I have provided an extremely simple and efficient lock, which can be easily and rapidly manipulated to attach the thills to the axle or to detach them therefrom. By the use of my device I overcome the necessity of employing bolts or wrenches to secure the shaft; and in case of an accident, by upsetting or otherwise, the shafts may be quickly detached. The anti-rattling spring is always in position, and, if so desired, the leaf-spring shown in the drawings may be removed and a rubber block or cushion substituted. The transverse pin at the end of the thill-iron is fastened at both ends, so that the thill is more effectually secured, while the use of the locking-levers prevents the cap from swinging upward so as to release the thill.

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

1. The combination of the bearing-arms adapted to support the thill-iron, the cap pivoted to said bearing-arms and adapted to engage over the thill-iron, and the locking-levers pivoted to the outer ends of the bearing-arms and engaging the front end of the cap, as set forth.

2. The combination of the bearing-arms having notches in their upper edges, the thill-iron provided with a transverse pin having its ends engaging said notches, the cap piv-
5 oted to the bearing-arms and provided with notches engaging the ends of the said transverse pin and having horizontal recesses in its front edges, and the locking-levers pivoted on the front ends of the bearing-arms and
10 engaging the horizontal recesses in the front edges of the cap, as set forth.

3. The improved thill-coupling consisting of the following elements in combination: the bearing-arms E, having notches F in their
15 upper edges, the thill-iron provided with a transverse pin D, engaging said notches, the

cap pivoted to the bearing-arms and having the depending arms I, provided in their lower edges with the notches J, engaging the ends
of the pin D, and in their front edges with
20 the recesses N, and the locking-levers pivoted on the upper sides of the bearing-arms at the front ends of the same, engaging the recesses N and passing rearward alongside the arms I, as set forth. 25

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ARTHUR HOMEWOOD.

Witnesses:

W. S. HAINES,

HENRY C. BERTOLETTE.