

(No Model.)

G. W. LA BAW.

THILL COUPLING.

No. 335,289.

Patented Feb. 2, 1886.

Fig. 1.

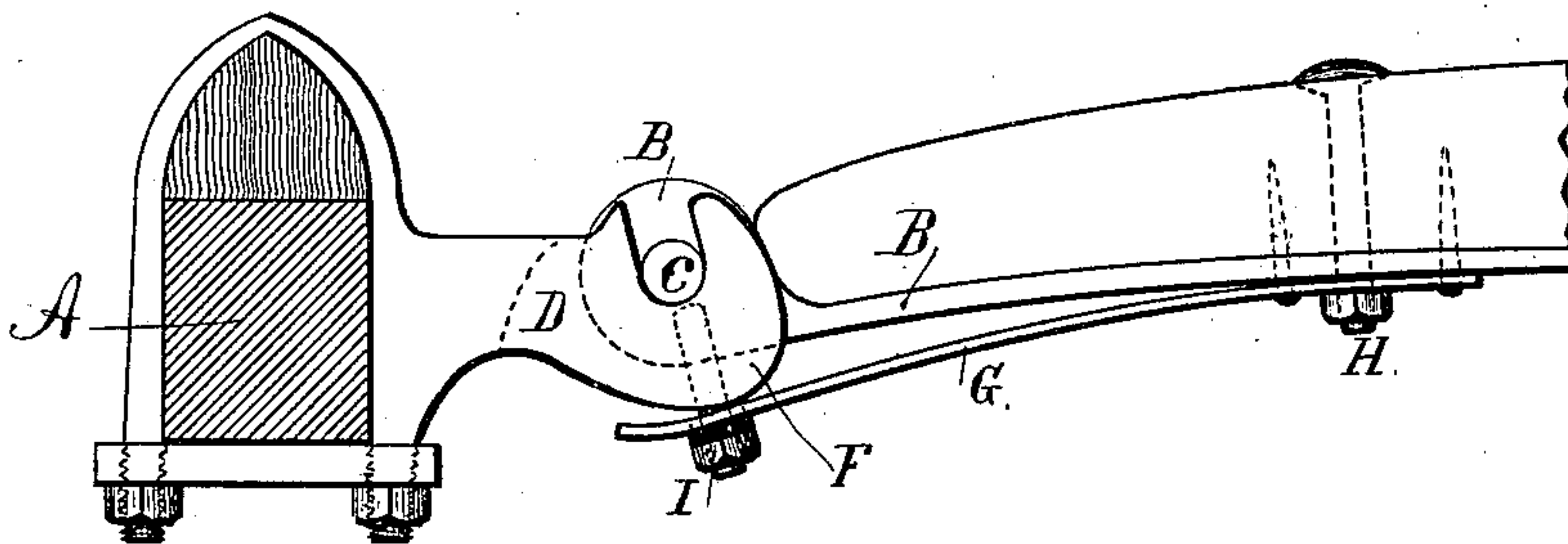


Fig. 2.

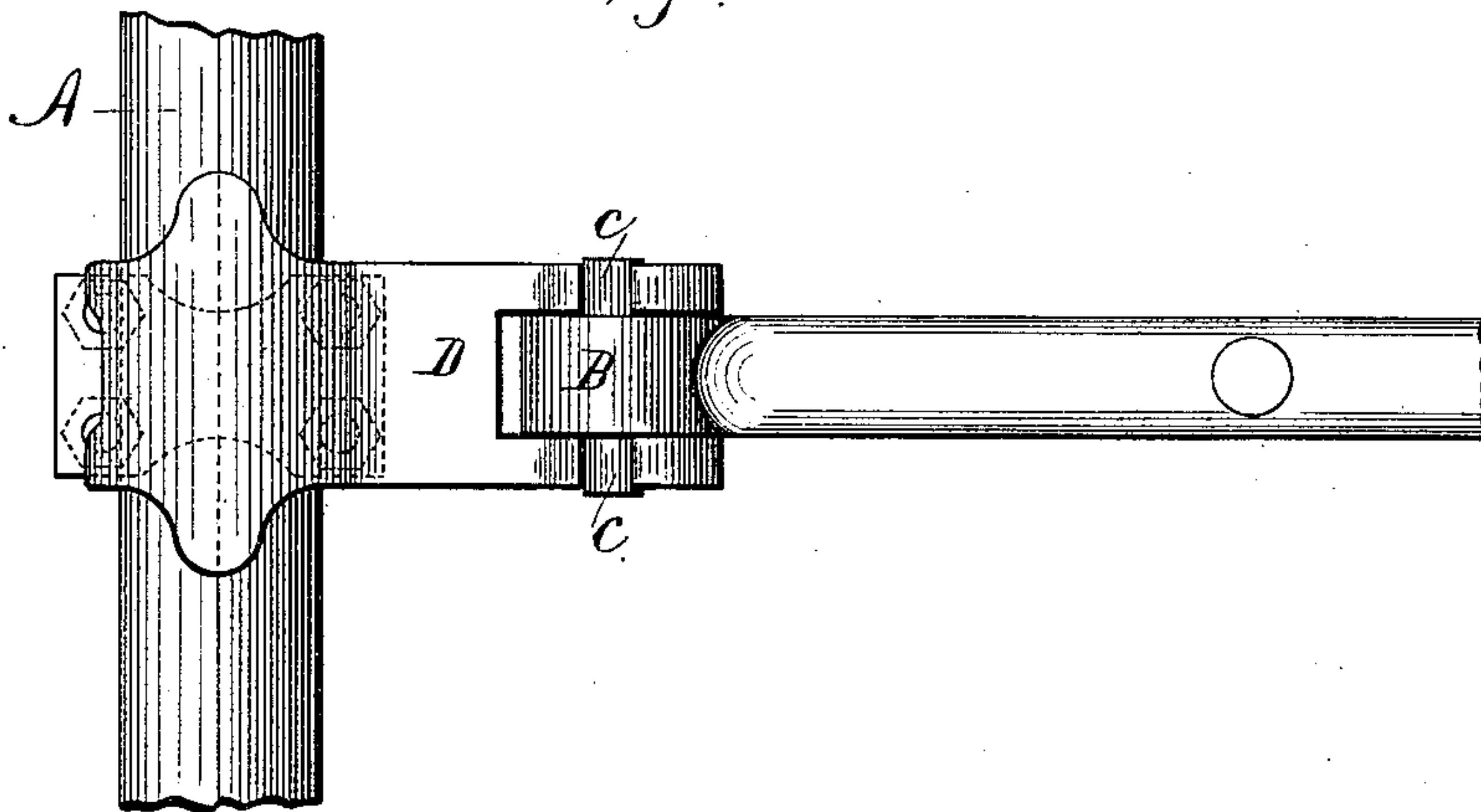
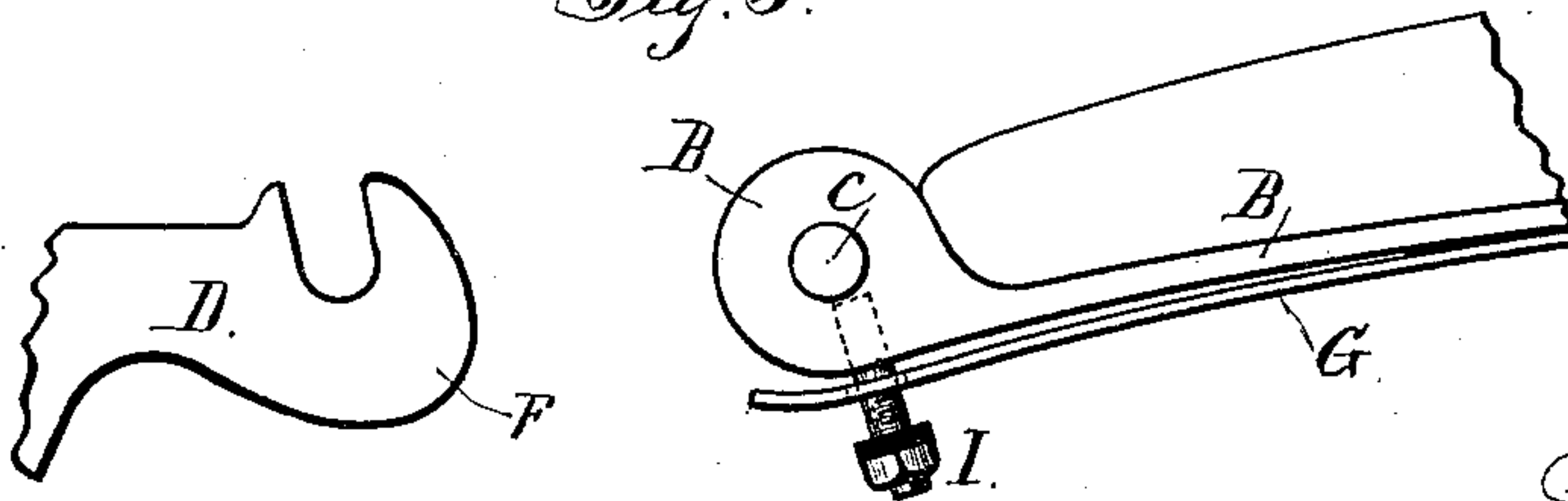


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE W. LA BAW, OF RAHWAY, NEW JERSEY.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 335,289, dated February 2, 1886.

Application filed November 9, 1885. Serial No. 182,185. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. LA BAW, of Rahway, in the county of Union and State of New Jersey, have invented an Improvement in Thill-Couplings, of which the following is a specification.

Thill-couplings have been made in which there is a hook-shaped socket upon the axle for a bolt or pin upon the thill-iron, and springs have been used in this connection; but the parts are slipped together by a motion endwise of the bolt and are separated by a movement in the reverse direction.

My invention relates to the combination, in a thill-coupling, of open hook-shaped jaws, and a cross-pin which is passed into the jaws when the pole or shafts are nearly vertical, and a spring that retains the bolt within the jaws, the jaws themselves being cam-shaped, so that when the shafts are turned down to nearly a horizontal position the cams of the jaws strain the spring to hold the parts firmly together, and there is a screw-bolt by means of which the movement of the spring is benefited, so that the bolt cannot be moved out of the jaws when the shafts are in their ordinary position, thereby making a reliable attachment that cannot be separated except when the shafts are turned up nearly vertical.

In the drawings, Figure 1 is a side view of the thill-coupling. Fig. 2 is a plan view, and Fig. 3 is a detached view of the hook-shaped jaws and thill-iron separated.

A represents a portion of the axle, and B the thill-iron at the rear end of the shaft or pole. This thill-iron has through it, or formed with it, a cross-bolt, C, of the requisite strength, and D are the jaws attached to the axle and receiving between them thill-iron B, and there are notches in these jaws for the reception of the pin or bolt C. These jaws are made with cam-surfaces at F, and upon the thill-iron there is a spring, G, attached by a bolt at H, and having a broadened end adapted to press against the cam-surfaces F, and there is a bolt, I, passing through a hole in the spring, and welded or screwed into the thill-iron. These parts are to be duplicated at the respective sides of the carriage for receiving the shafts or pole. It is now to be understood that the shafts or pole are placed in nearly a vertical position, so that

the bolts or cross-pins C will pass freely into the notches in the jaws when the shafts are vertical, and the end of the spring will lie against the edges of the jaws and when the shafts are turned down nearly horizontally the cam portions of the jaws, acting against the spring, press the said spring down, so that it may firmly hold the said cross-pin within the jaws, and the length of the projecting portion of the bolt is such that the spring comes against the head of the bolt, or nearly so, or against a rubber block between the spring and bolt-head when the shafts are in the ordinary position for use, thereby rendering it impossible for the cross-bolt C and thill-iron to be lifted and become disconnected from the jaws and the bolt that passes through the spring-supports, the latter against any undue strain, so that the spring is not liable to be broken. The projecting cam-surfaces do not extend all around the lower portions of the jaws; hence when the pole or shafts are lowered, with the outer ends resting on the ground, the spring G ceases to bear upon the cam-shaped portion of the jaws, and the spring is thereby relieved from undue tension. When the pole or shafts are to be removed, they are swung up nearly vertically, and lifted so that the cross-pins pass freely upwardly and out of the jaws, and the parts are disconnected. By a reverse movement the parts are replaced and connected. It will be apparent that these parts might be reversed in their relative positions, the spring and portion with the cross-pin being connected with the axle, and the jaw being at the end of the thill-coupling, the parts otherwise remaining unchanged.

I claim as my invention—

The open-slotted jaws having cam-shaped surfaces on their lower sides, in combination with the thill-iron and cylindrical cross-pin received into such jaws, the spring acting against the cam portion of the jaws, and the bolt for limiting the movement and preventing injury to the spring, substantially as set forth.

Signed by me this 5th day of November, A. D. 1885.

GEO. W. LA BAW.

Witnesses:

GEO. T. PINCKNEY,
WILLIAM G. MOTT.