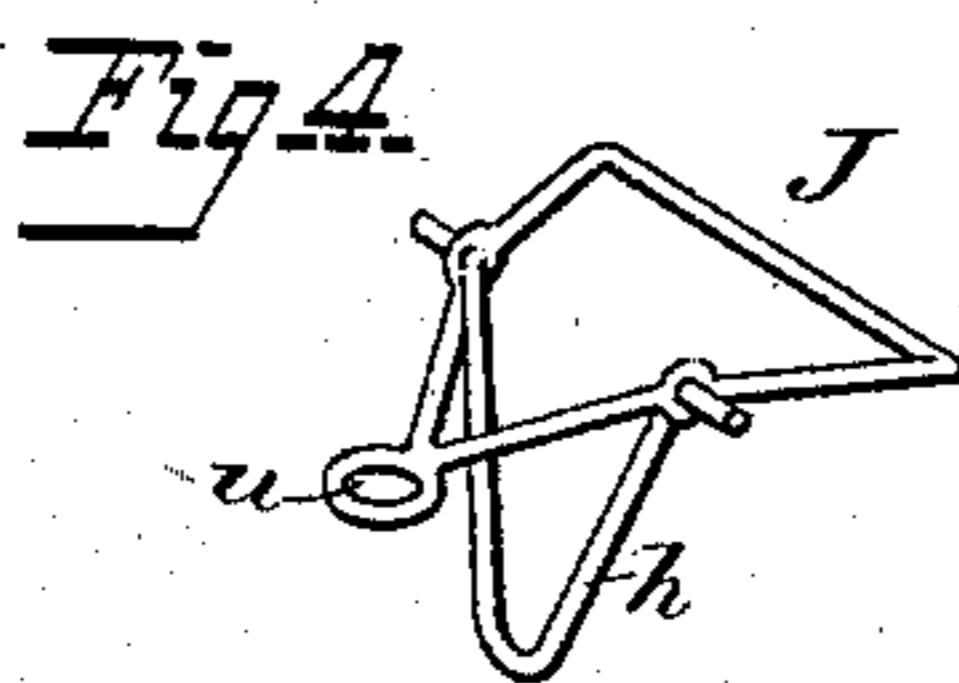
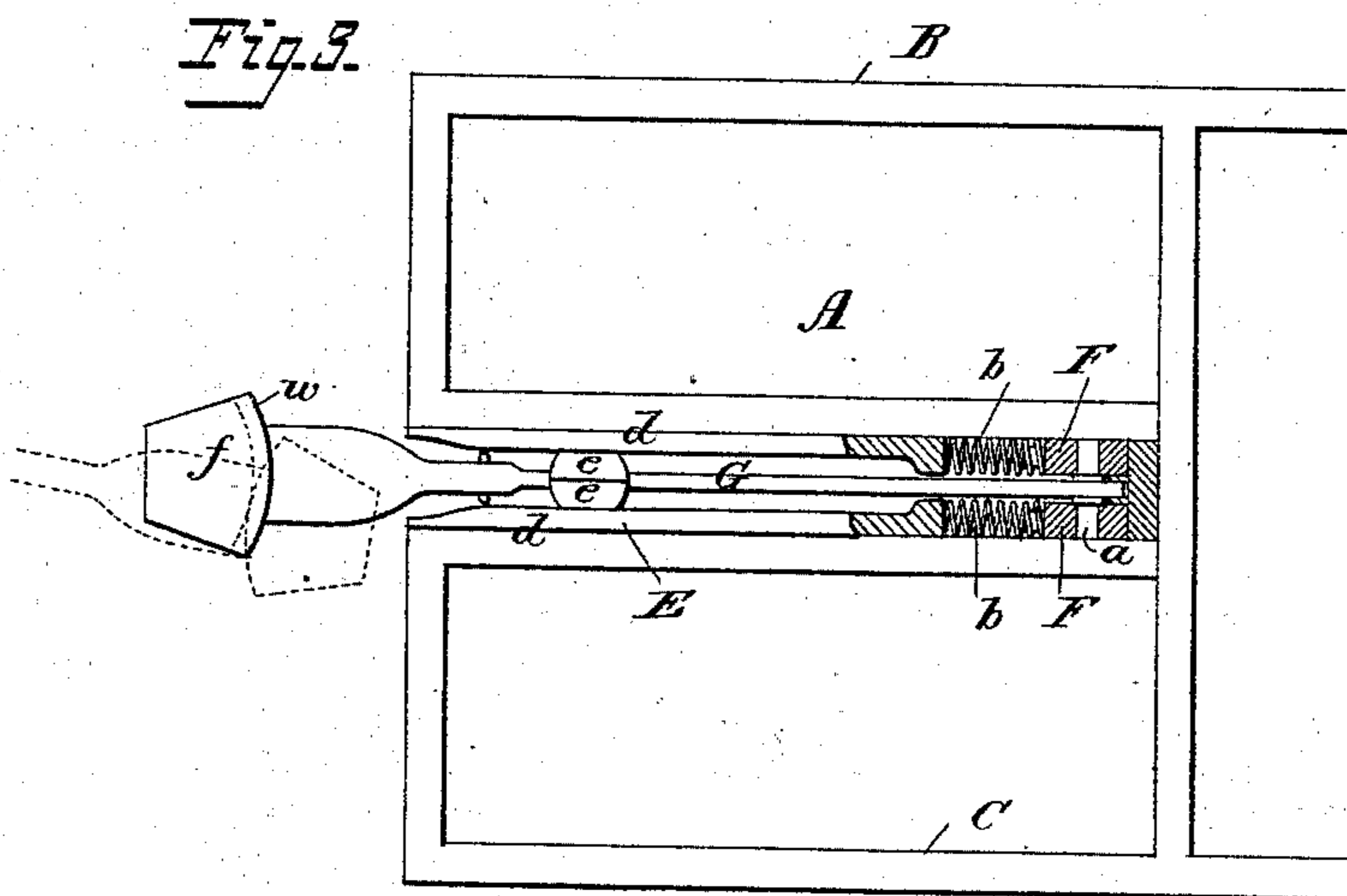
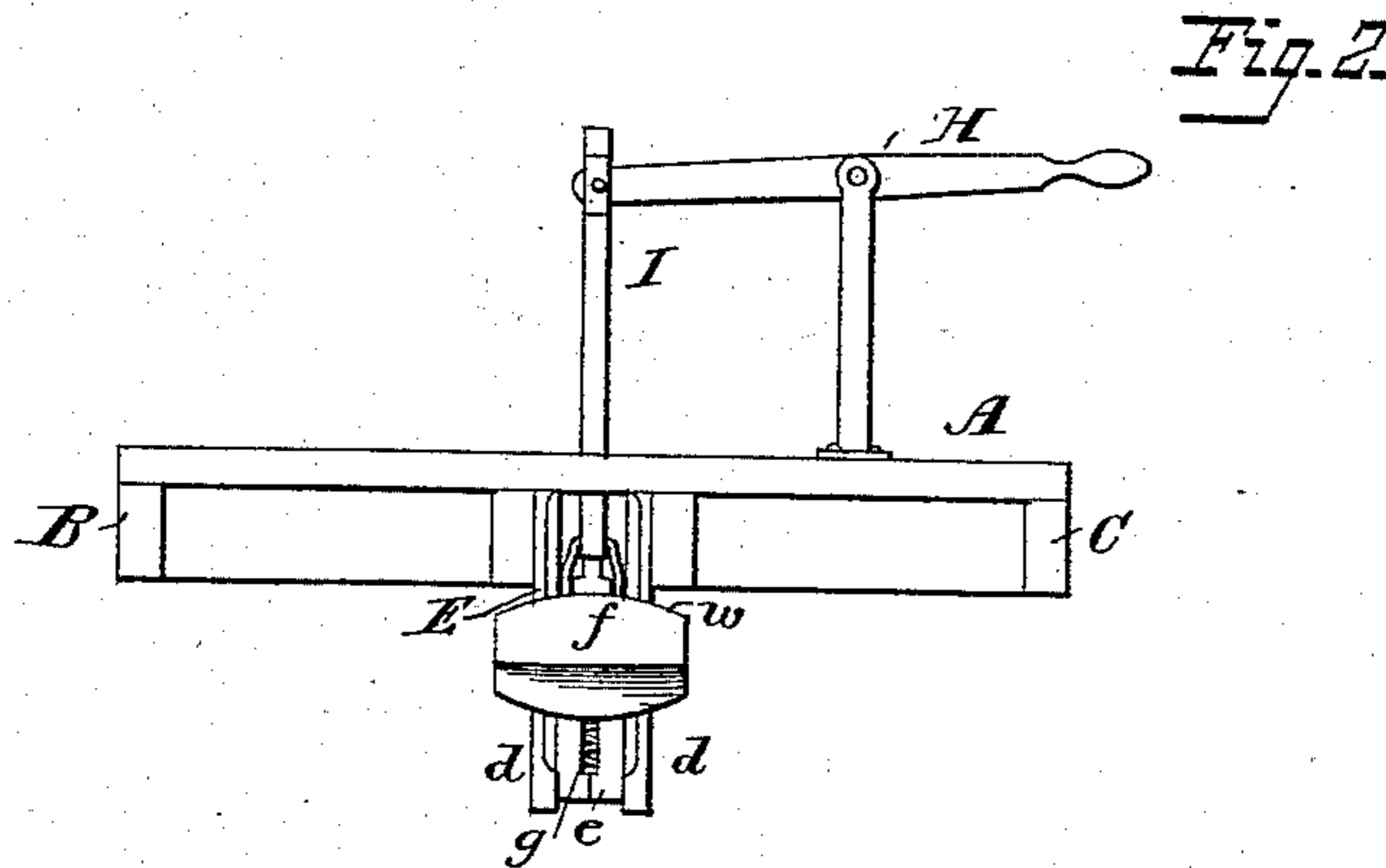
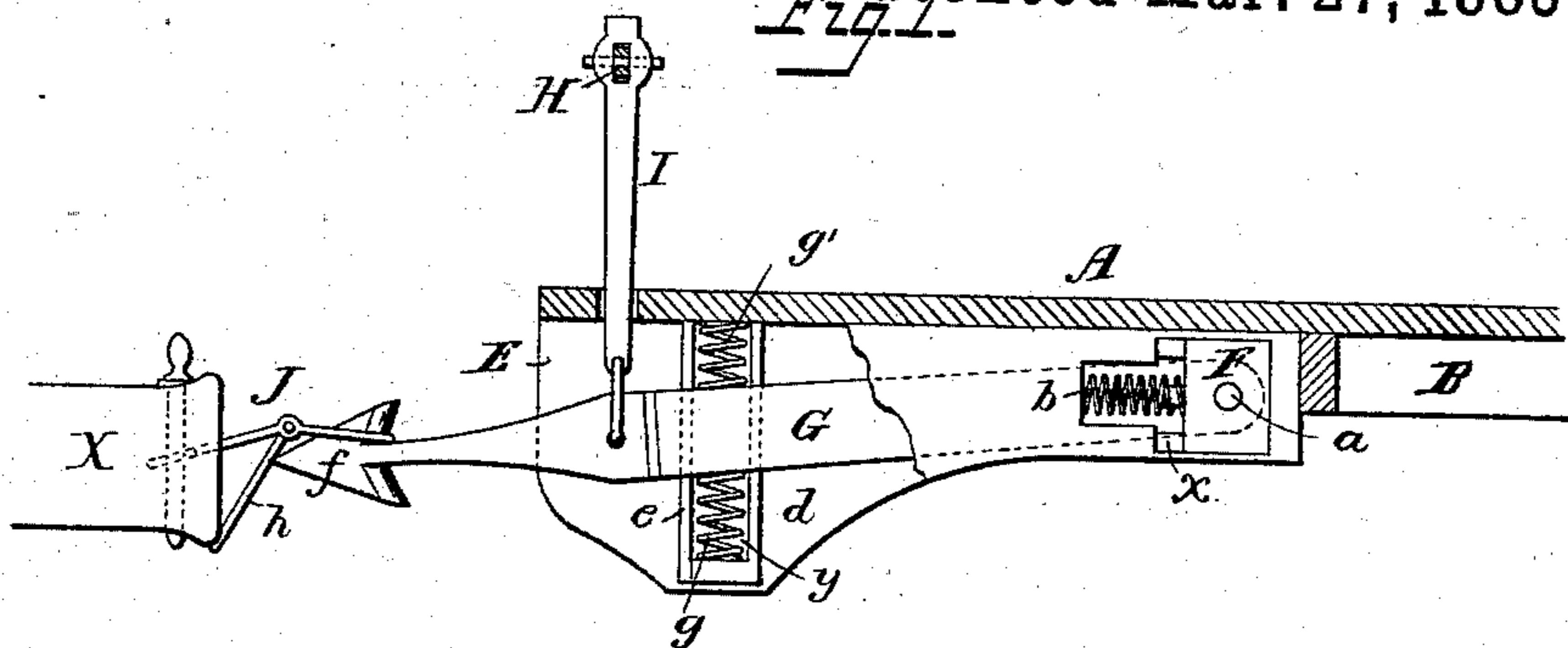


(No Model.)

J. D. MILLER  
CAR COUPLING.

No. 274,808.

Patented Mar. 27, 1883.



Attest:-

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A. E. Sanmann.

J. D. Miller

Inventor:  
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Atty.

# UNITED STATES PATENT OFFICE.

JACOB D. MILLER, OF YORK, PENNSYLVANIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 274,808, dated March 27, 1883.

Application filed October 5, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB D. MILLER, a citizen of the United States, and a resident of York, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention is a car-coupler constructed, as fully described hereinafter, so as to secure an automatic coupling with cars provided with like devices, or with those having the ordinary draw-heads, and to permit the coupled cars to be brought at an angle to each other without any lateral vibration of the coupling devices.

In the drawings, Figure 1 is a sectional elevation of sufficient of a car body and coupling to illustrate my improvement. Fig. 2 is a front elevation of Fig. 1. Fig. 3 is an inverted plan in part section, and Fig. 4 a detached perspective view of the parts used in coupling with ordinary draw-heads.

A is a platform, and B C the longitudinal beams, of the car-body, and to the sides of the beams B B are bolted the side plates, *d d*, of the coupling frame or case E. In a recess, *x*, at the side of each plate *d*, and near the rear end thereof, slides a bearing-block, F, between which and the front edge of the recess is interposed a spring, *b*, and to a transverse pin, *a*, connecting the two blocks F F, is hung the draw-bar G, which extends forward between the plates *d d*, and is provided at the front end with an arrow-head, *f*, the barbs of which are above and below the shaft. In projections *e* at the inner sides of the plates *d* are recesses *y*, which form pockets for the reception of springs *g g'*, which bear upon the draw-bar above and below and tend to maintain the draw-bar in a nearly horizontal position, while permitting its vertical play.

When a coupling device thus constructed is brought into contact with one of a like character one head *f* will slide upon the other until the barbs engage with each other and prevent the separation of the heads until the vertical movement is given to one or the other to disengage them. The requisite elastic bearing to prevent shocks and jerks when the train is drawn forward is secured by the springs *b*, which permit a limited longitudinal play. As the draw-bar has but little lateral vibration, I

provide for the requisite bearing when one car is brought to an angle with the other by widening the head *f* and imparting curved edges *w* to the barbs, so that the bearing will be of the same character when two bars are at an angle, as in Fig. 3, as when they are in line with each other. While the springs *g g'* tend to hold the draw-bar in one position, they will permit its vertical adjustment, so as to permit coupling between cars of different heights, which adjustment may be effected from the side of the car by means of a lever, H, connected by a link, I, to the draw-bar.

To effect a coupling between the device described and a car having the usual draw-head, X, I use the auxiliary device, shown in Figs. 1 and 4, consisting of a link, J, wide enough at one end to catch upon the head *f*, reduced at the other, so that it may enter the mouth of the draw-head X, and provided with an eye, *u*, to receive the usual coupling-pin. A V-shaped yoke, *h*, is hung to the link J, and will bear upon the lower edge of the draw-head X, and serves as an inclined guard to deflect the head *f* and prevent it from plunging into the mouth of the draw-head. The link J may be closed at the rear, and the part *h* may be a hinged plate.

I claim—

1. The combination, with the draw-bar of a car-coupling, of the recessed plates *d d*, guide-blocks F F, sliding in said plates, and springs *b g g'*, all arranged to operate substantially as set forth.

2. The draw-bar G, hung to the cars, substantially as set forth, and provided with an arrow-head, *f*, with barbs widened at the rear and provided with curved edges *w*, for the purpose specified.

3. The auxiliary coupling device consisting of the link J, provided with a contracted end and having an eye, *u*, and with a hinged yoke, *h*, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JACOB D. MILLER.

Witnesses:

EDWARD G. EYSTER,  
EDWARD SIEKER.