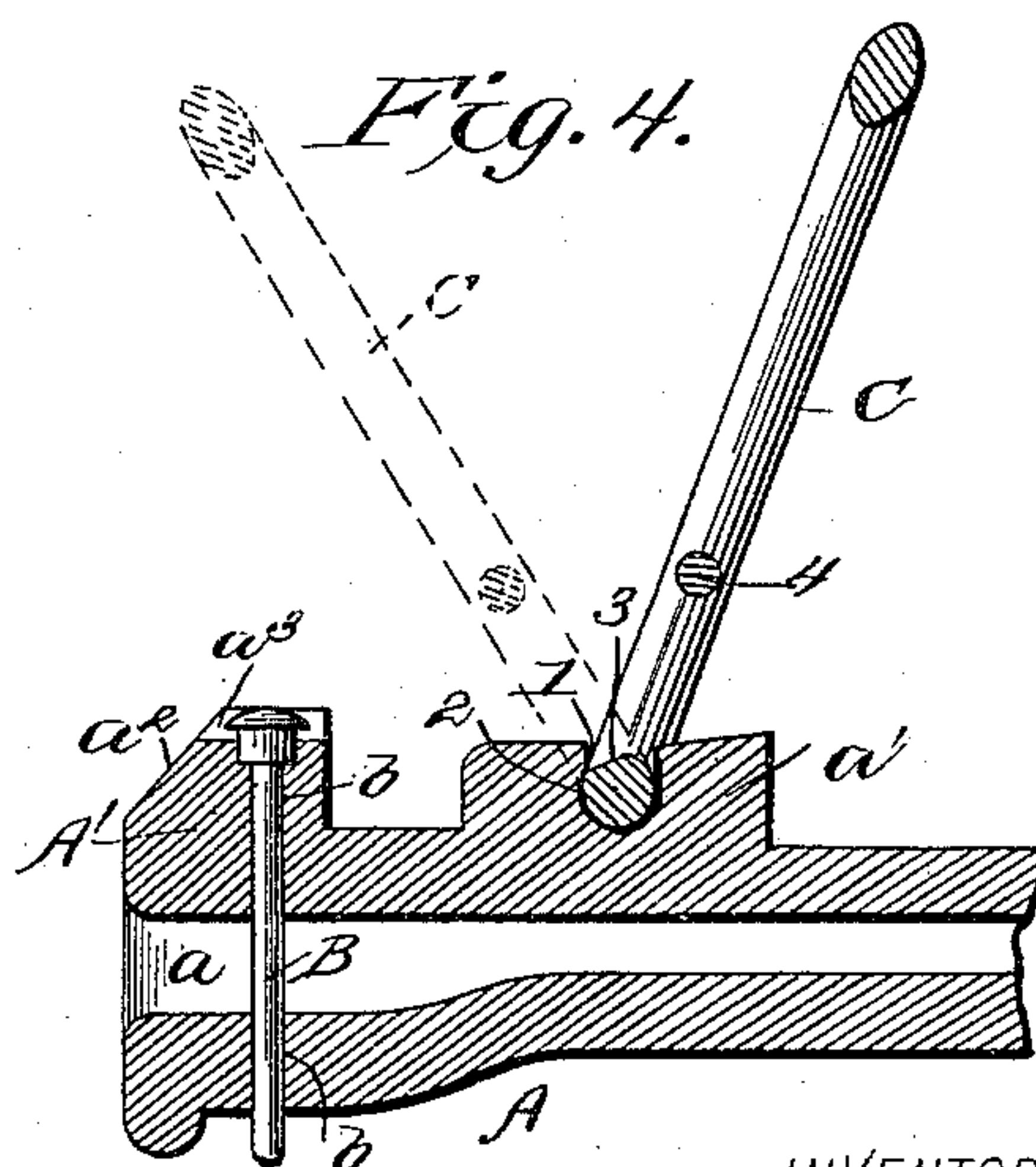
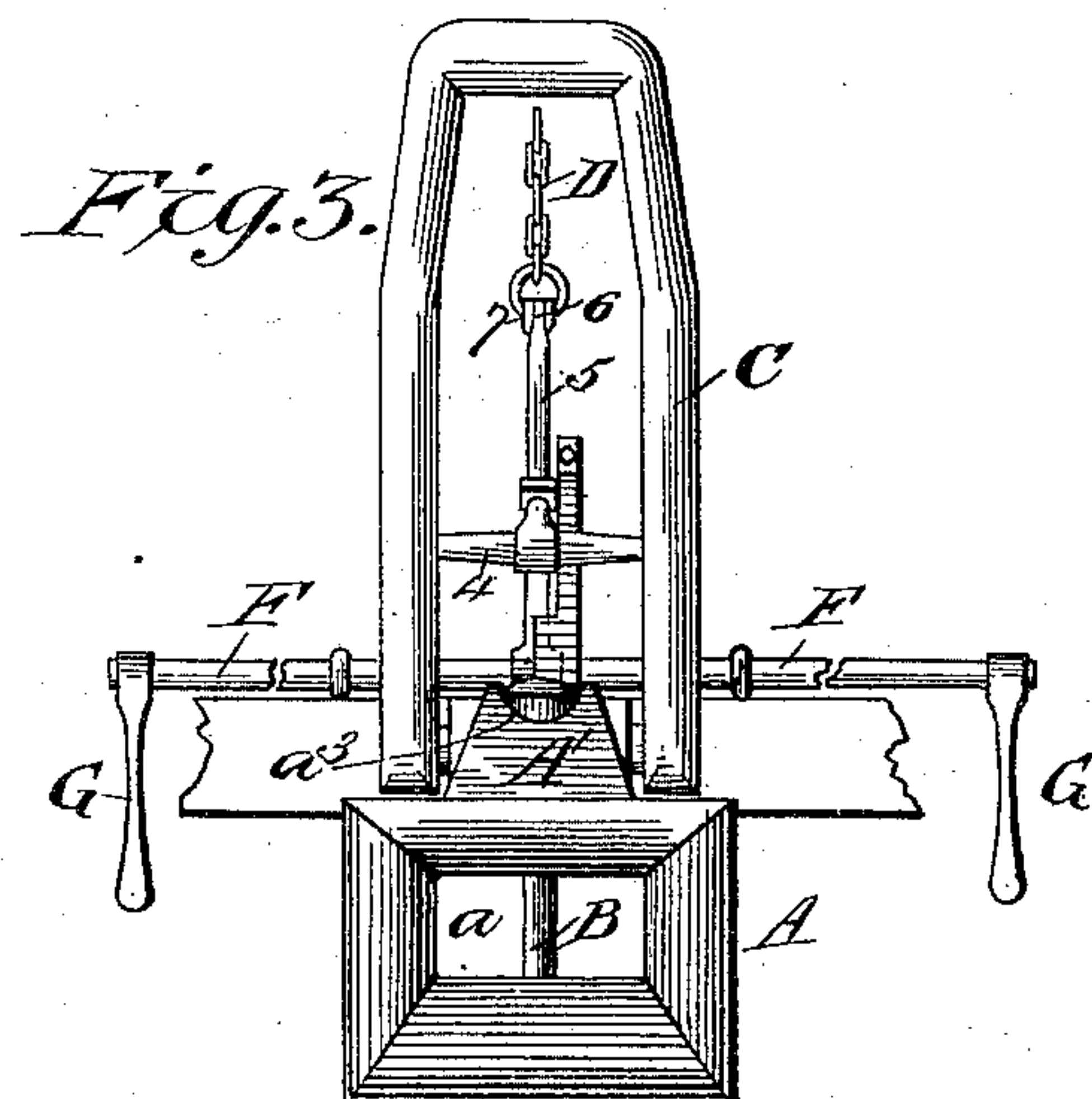
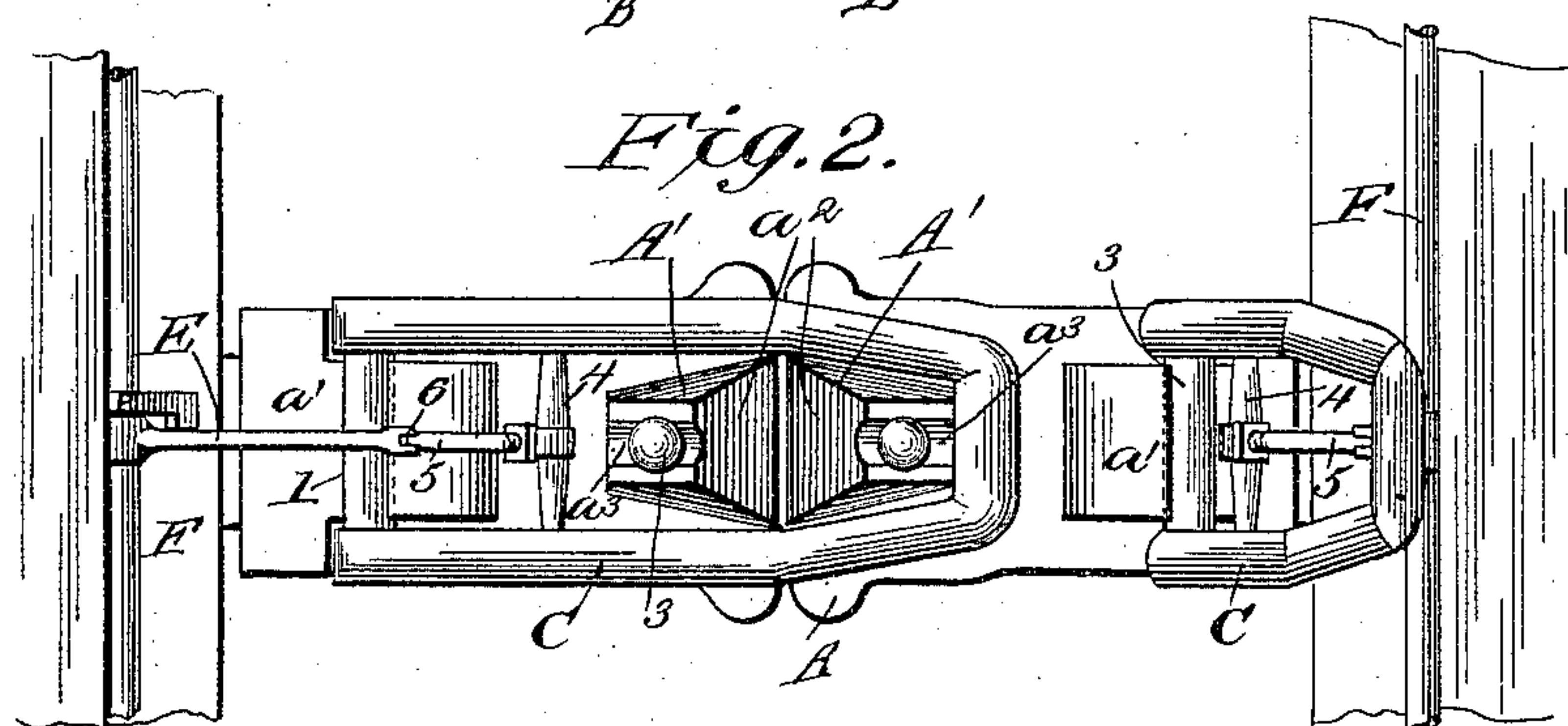
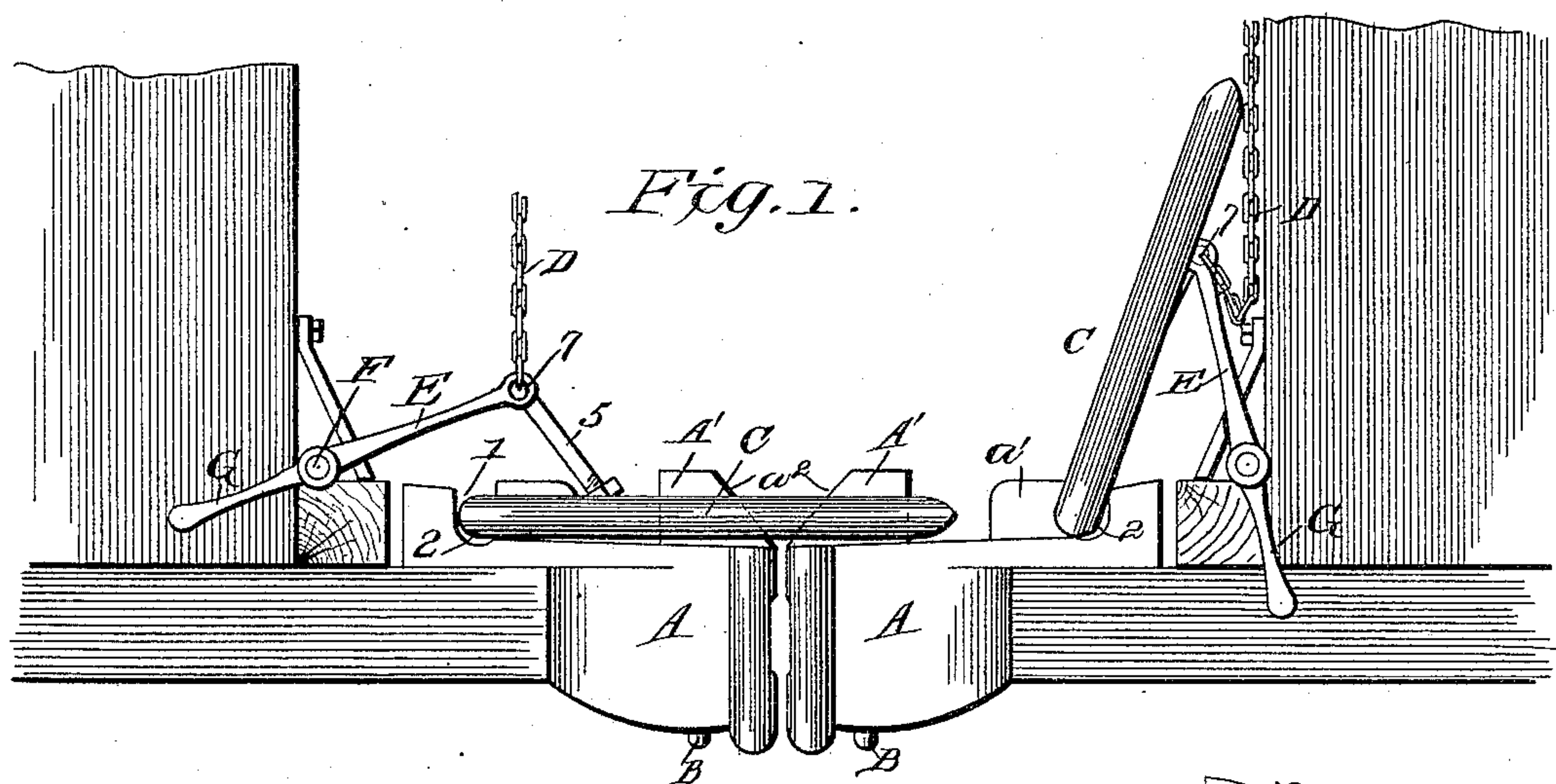


(No Model.)

A. N. HOPKINS.
CAR COUPLING.

No. 429,920.

Patented June 10, 1890.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ALBERT N. HOPKINS, OF DULUTH, MINNESOTA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 429,920, dated June 10, 1890.

Application filed February 18, 1890. Serial No. 340,960. (No model.)

To all whom it may concern:

Be it known that I, ALBERT N. HOPKINS, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to automatic car-couplers; and it has for its object to provide a coupler of this class which will be simple in construction, easy to manipulate, and effective for its desired purpose.

To this end my invention consists in certain novel features of construction and peculiar combination of parts, all of which will hereinafter be fully described in the annexed specification and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of my improved coupler, showing the two draw-heads coupled together. Fig. 2 is a top plan view thereof. Fig. 3 is a front view, and Fig. 4 is a detail longitudinal section of the front end of one of the draw-heads.

In the accompanying drawings, A A indicate the draw-heads, which are each formed with the ordinary link-opening a and the pin-apertures b , to adapt said draw-heads for coupling with the ordinary link and pin in case it is connected with a car not provided with my improved coupler. Each draw-head A is provided on its upper face with an upwardly-extending boss or enlargement a' , in which is formed a short vertical recess 1, the lower portion of which is increased in diameter to form an approximately-circular seat 2, in which is fitted one end of the link C, said end being formed with one flat side 3, which permits said link being inserted in position in the said recess when said link is placed in the position shown in dotted lines in Fig. 4.

The links C, the construction of which is most clearly shown in Fig. 2 of the drawings, each have a cross-bar 4, preferably formed integral therewith, to which is connected one end of a rod 5, the upper end of which is formed with an apertured end 6, which is connected by the lower end of a chain D with the apertured end 7 of an arm E, projected forward from a rock-shaft F, journaled to the front of the cars, as shown, such shafts having lever-arms G on their outer ends, whereby said

shaft F may be conveniently operated from the sides of the car, it being understood that the chain D serves as a lifting-chain, whereby said links may be elevated from the top of the car.

On the forward end of each draw-head A is formed a coupling-lug A' , the front face of which is inclined, as at a^2 , while its rear wall is straight, as shown. The upper face of said lugs A' is provided with a longitudinal groove a^3 to form a seat for the head of the ordinary coupling-pin B, so same will not project and act as an obstruction when the links C ride up over the lug A' in coupling.

The forward end of each link C is beveled or circular shaped, so that in case both of the links be down in coupling one will ride over the other, thereby allowing the under one to catch behind the lug A' and couple the cars.

From the foregoing description, taken in connection with the drawings, the operation of my improved car-coupling will readily appear. It will be seen that its coupling action is entirely automatic and that the same may be readily coupled to cars provided with the ordinary link-and-pin coupling.

I desire it understood that I do not limit myself to the exact devices shown for raising the coupling-links.

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

The herein-described improved car-coupler, consisting of the draw-heads A A, provided with the usual pin-and-link-coupling apertures, and each formed with a boss having recess 1, such recess formed with a circular enlargement 2, coupling-lugs A' , formed on the front end of said draw-heads, said lugs having inclined front faces a^2 and longitudinal grooves a^3 , adapted to receive the heads of the coupling-pins B, the coupling-links C, provided with circular cross-bars at their ends, the rear cross-bar having a straight portion 3, such ends adapted to be fitted in the recesses 1, the front ends of said links beveled, as shown, and the link-raising devices, all arranged substantially as and for the purpose described.

ALBERT N. HOPKINS.

Witnesses:

ALBERT E. MCMANUS,
A. O. AYRES.