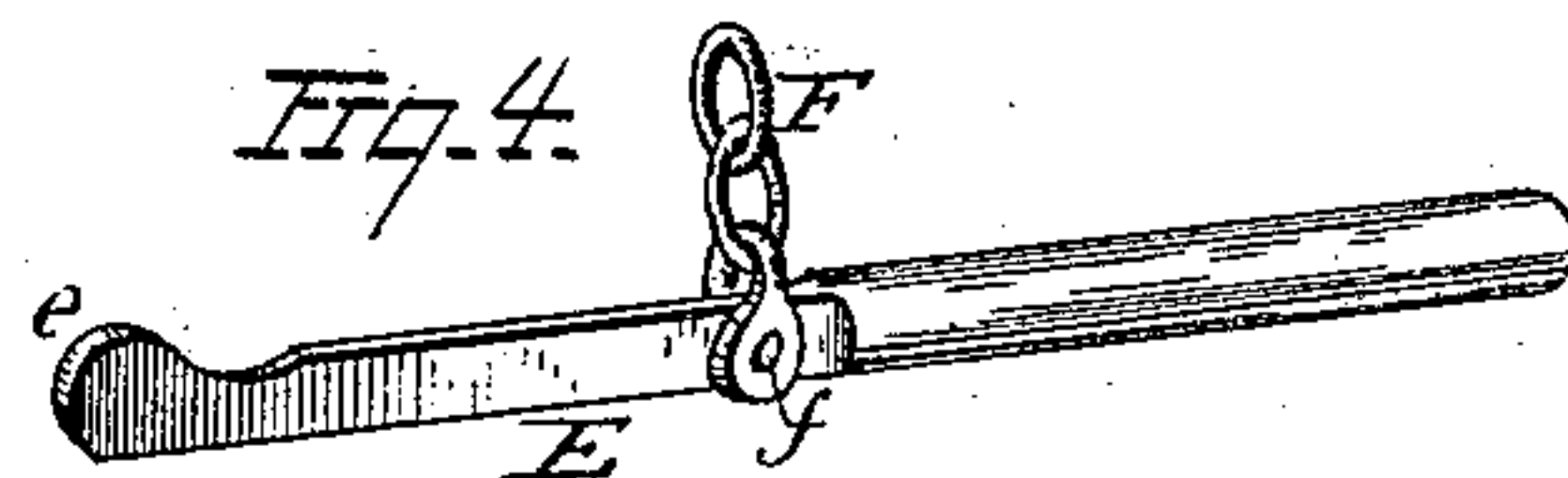
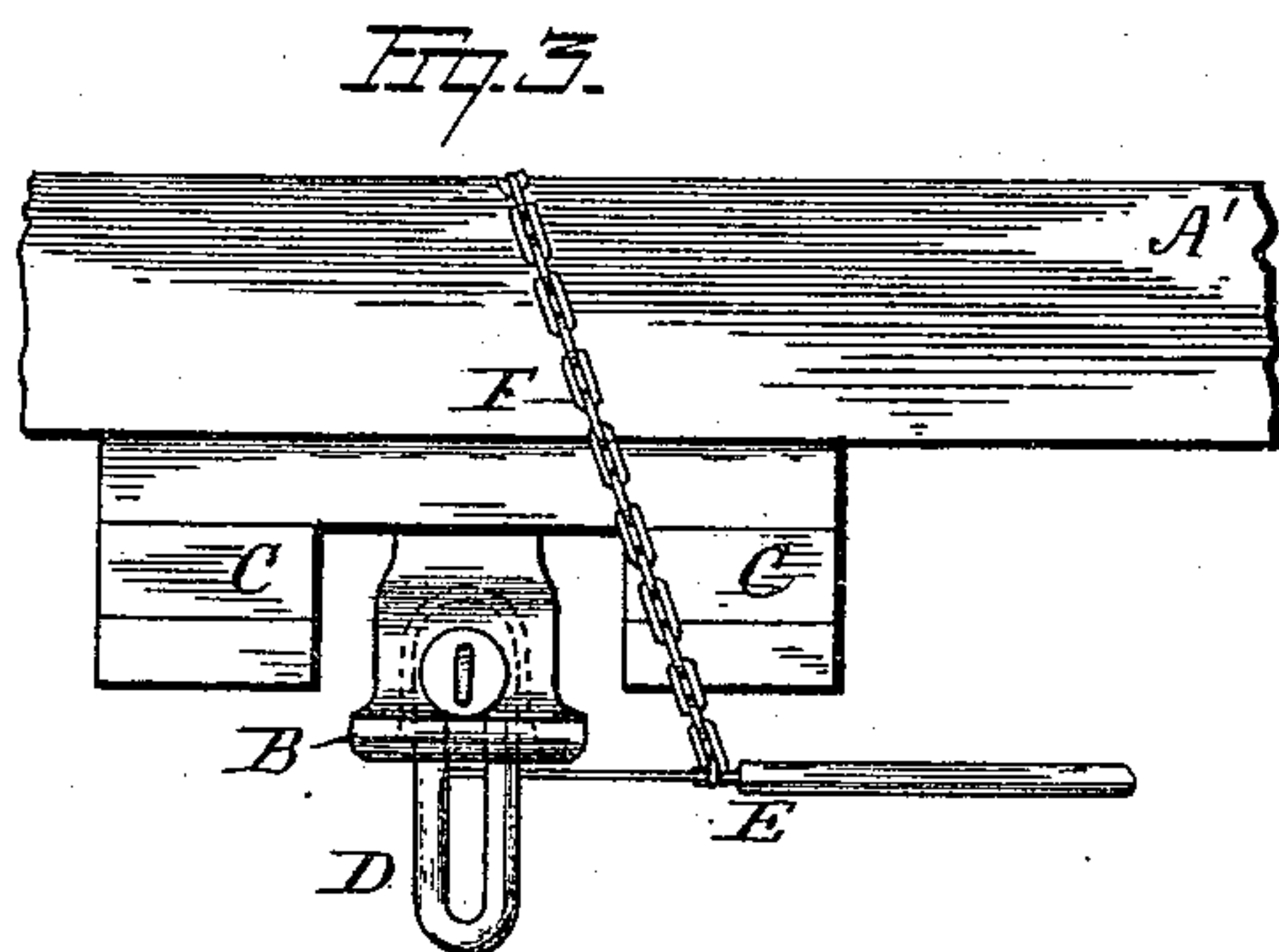
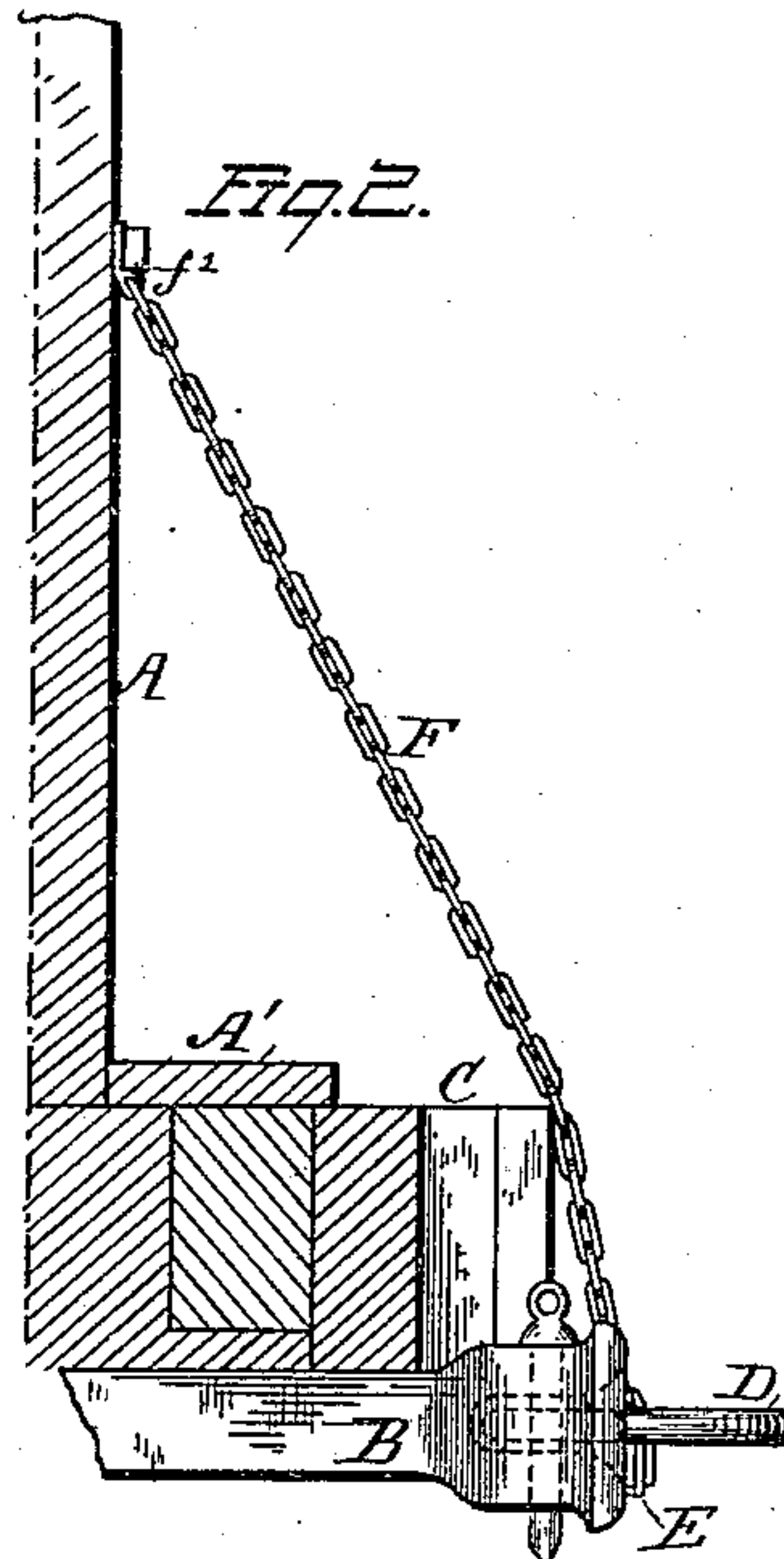
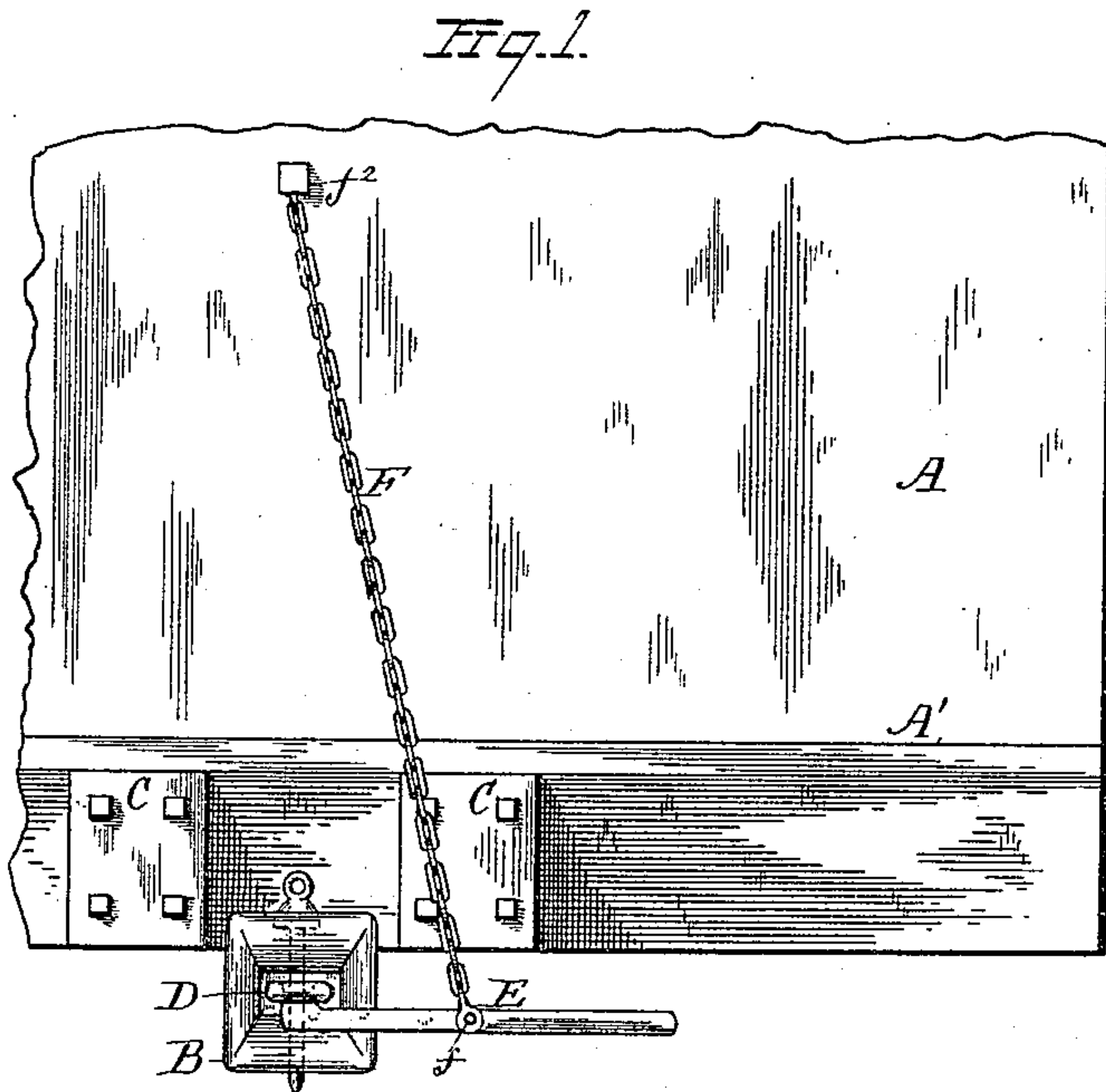


(No Model.)

G. F. ELLS.
CAR COUPLING.

No. 344,955.

Patented July 6, 1886.



Witnesses:
E. R. Murdeman
W. B. Masson

Inventor:
George F. Ells
by *E. E. Masson*
atty

UNITED STATES PATENT OFFICE.

GEORGE F. ELLS, OF BINGHAMTON, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 344,955, dated July 6, 1886.

Application filed May 15, 1886. Serial No. 202,313. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. ELLS, a citizen of the United States, residing at Binghamton, in the county of Broome, State of New York, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in devices for coupling-cars; and the objects of my improvements are to provide a simple and inexpensive coupling device, whereby in cars having a link and pins for coupling two draw-bars together the coupling-link may be raised or moved laterally and guided into the mouth of the opposite draw-bar and the coupling-pin inserted through the link, so as to couple the two draw-bars together without danger to the hands and arms of persons coupling cars. I accomplish these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a front view of a portion of a car provided with a safety-coupling device constructed in accordance with my invention. Fig. 2 is a central vertical section of the same. Fig. 3 is a top view of the same. Fig. 4 is a perspective view of the coupling-lever, its shackle, and links of its supporting-chain.

In the drawings, A represents a portion of the end of a freight-car, and A' the frame or platform thereof at the end of the car, to which is secured in the usual manner the draw-head B between the bumpers C. These bumpers are shown in the position now most commonly adopted on freight-cars. They are close to and nearly cover the draw-head, and render the operation of coupling-cars very dangerous to persons' hands and arms, although they permit a person's body to enter between the platforms.

To facilitate the coupling of draw-heads and the raising, lowering, or the laterally moving (as the case may require) of the coupling-link D, a lever, E, is used. This lever is preferably used about two feet long of five-eighths round iron or low-grade steel, and about one-half of its length is flattened, so that its cross-section is about three-sixteenths by one and one-quarter inch. The extreme end of the flat part of the lever is made wider than the balance, and is rounded at e, to partly enter between the two sides of the link and keep it from

slipping off the lever when said link is being raised to enter the mouth of the draw-head of an approaching car. The round part of the lever forms the handle, and although I prefer to make it short, as shown, relatively to the width of the car, it may upon some cars be made long enough to extend to the side thereof. The lever E is suspended from the end of a chain, F, the last link of which either passes through the flat portion of the lever adjacent to its handle or carries a shackle, the pin *f* of which passes through that portion of the lever. The opposite end of the chain (about four feet long) is secured by a staple or bolt, *f*², to the end A of the car half-way between the two sides or directly above the draw-head, so that the lever can as conveniently be operated from either side of the draw-head, as said lever has a movable fulcrum that can be swung on either side of said draw-head, and the chain F presents a safety brace or support for the brakeman, if he leans forward or rests on his knees upon the platform A' of a car advancing toward another, and he can from his perch use either hand to operate the lever and properly direct the coupling-link. The lever is suspended at such a height that it shall be about horizontal when holding the link horizontally. When not in use, the lever may be hung upon a pin or hook or slipped into a pocket attached to or in a recess made in the car.

I am aware that cars have been provided with levers pivoted to stationary brackets pendent from the under side of the platform; but I am not aware that the same lever could be used indiscriminately and instantly from either side of the draw-head or from the platform above it to guide the coupling-link.

The device is inexpensive. It can be attached in a few minutes to a freight-car, and prevents injury to the hands and arms of persons coupling cars.

Having now fully described my invention, I claim—

In combination with the end of a car and a chain pivoted thereto above its draw-head, a lever fulcrumed upon said chain, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

Witnesses: GEORGE F. ELLS.
STEWART E. BUTLER,
JOHN T. WHITMORE.