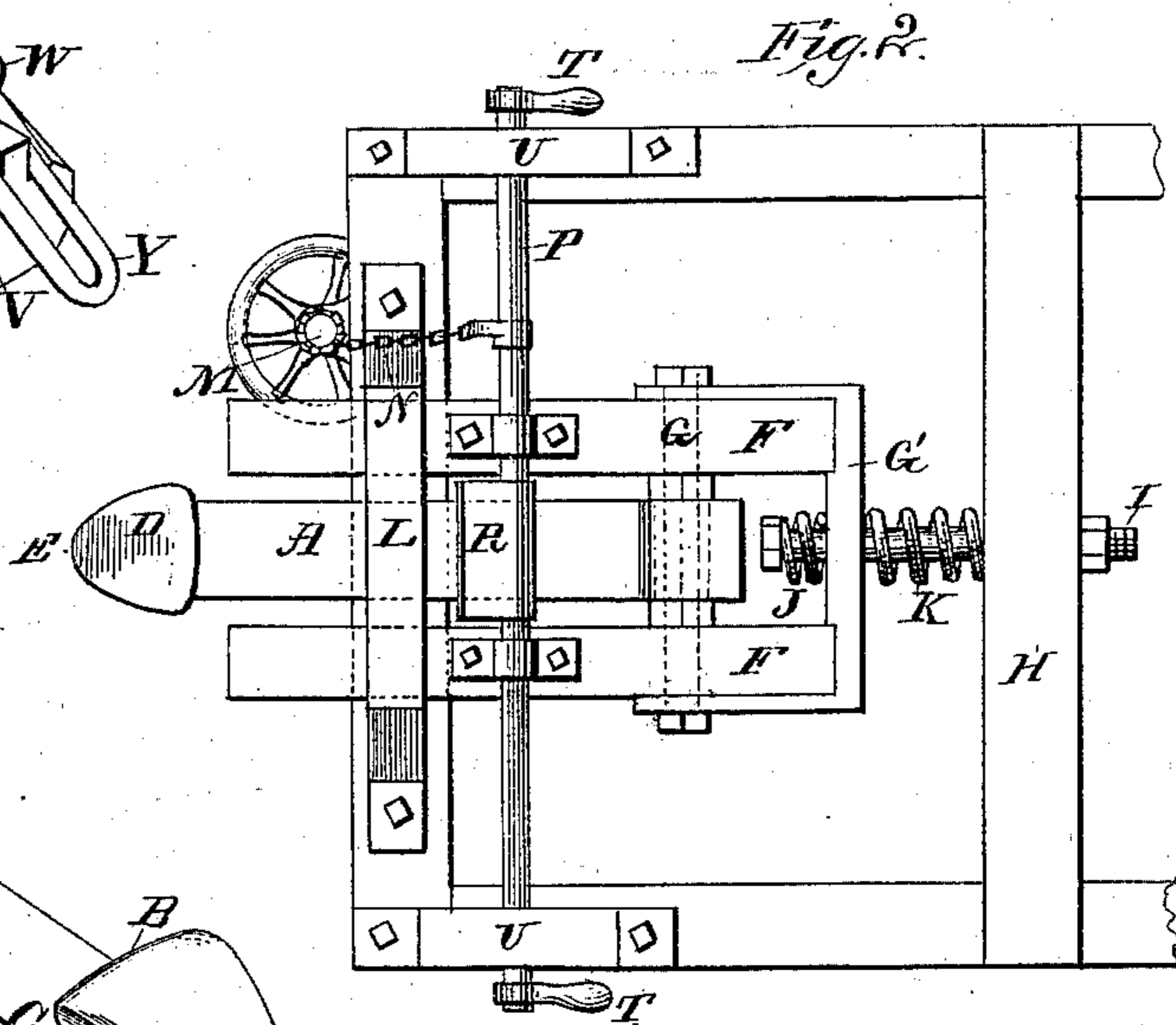
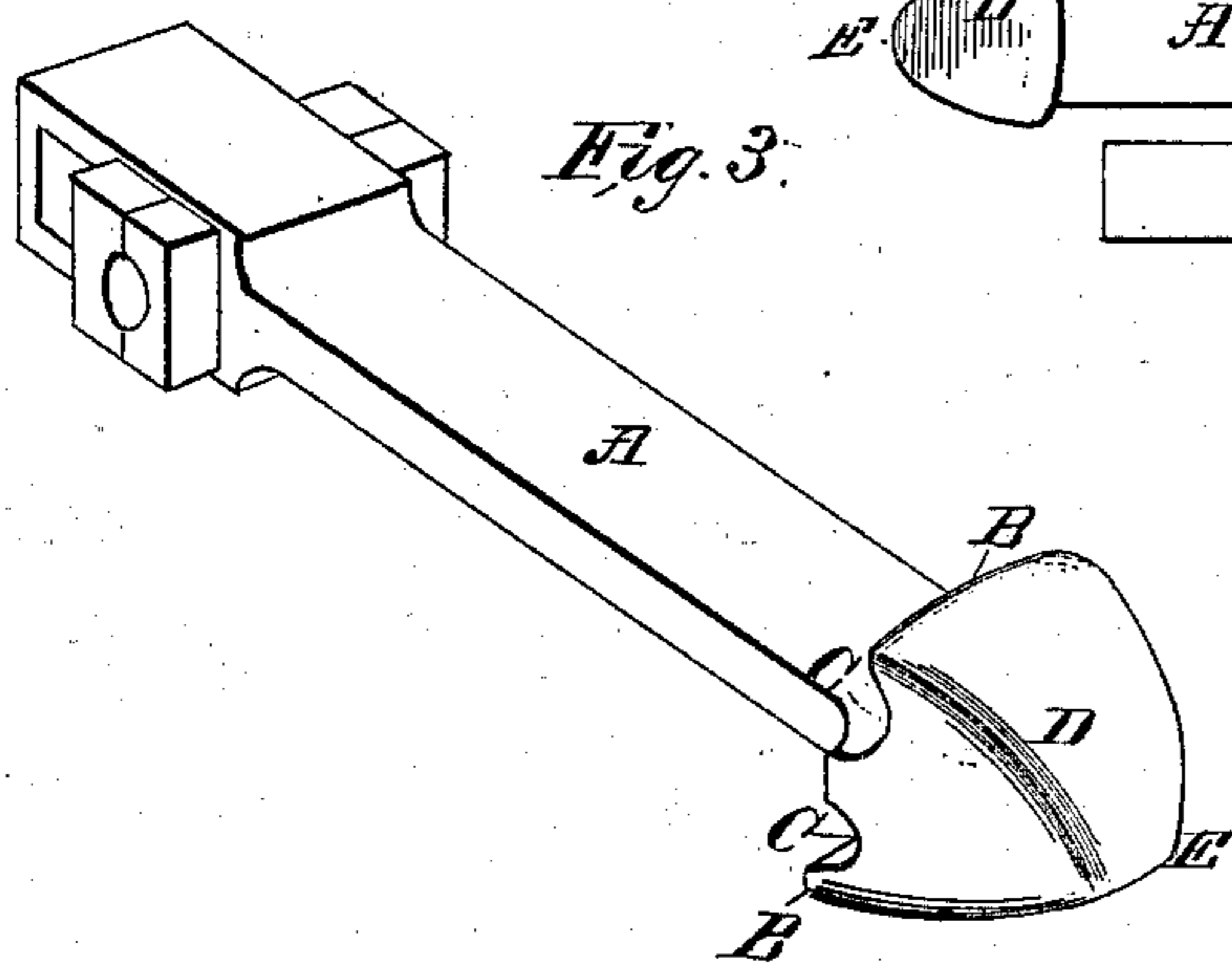
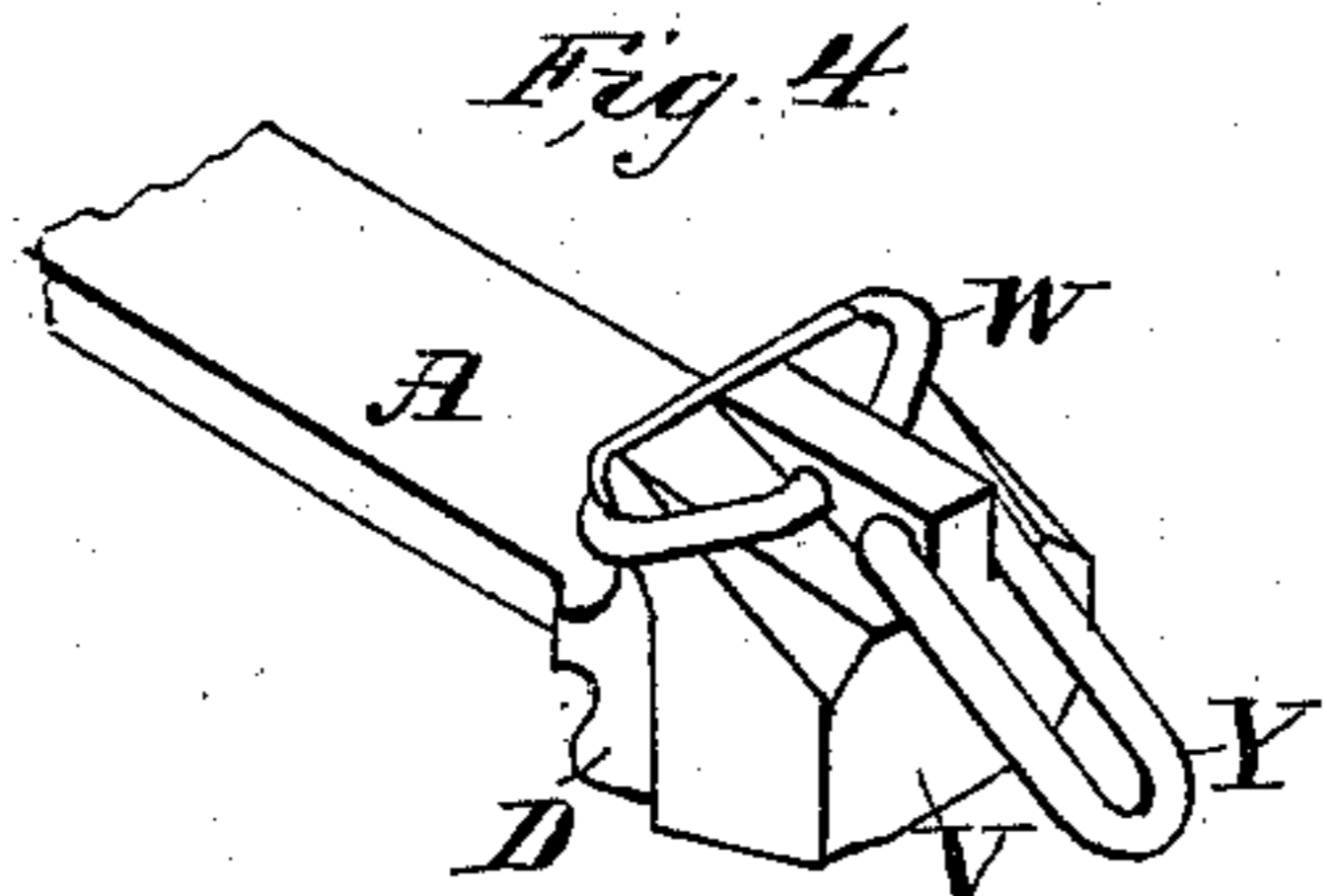
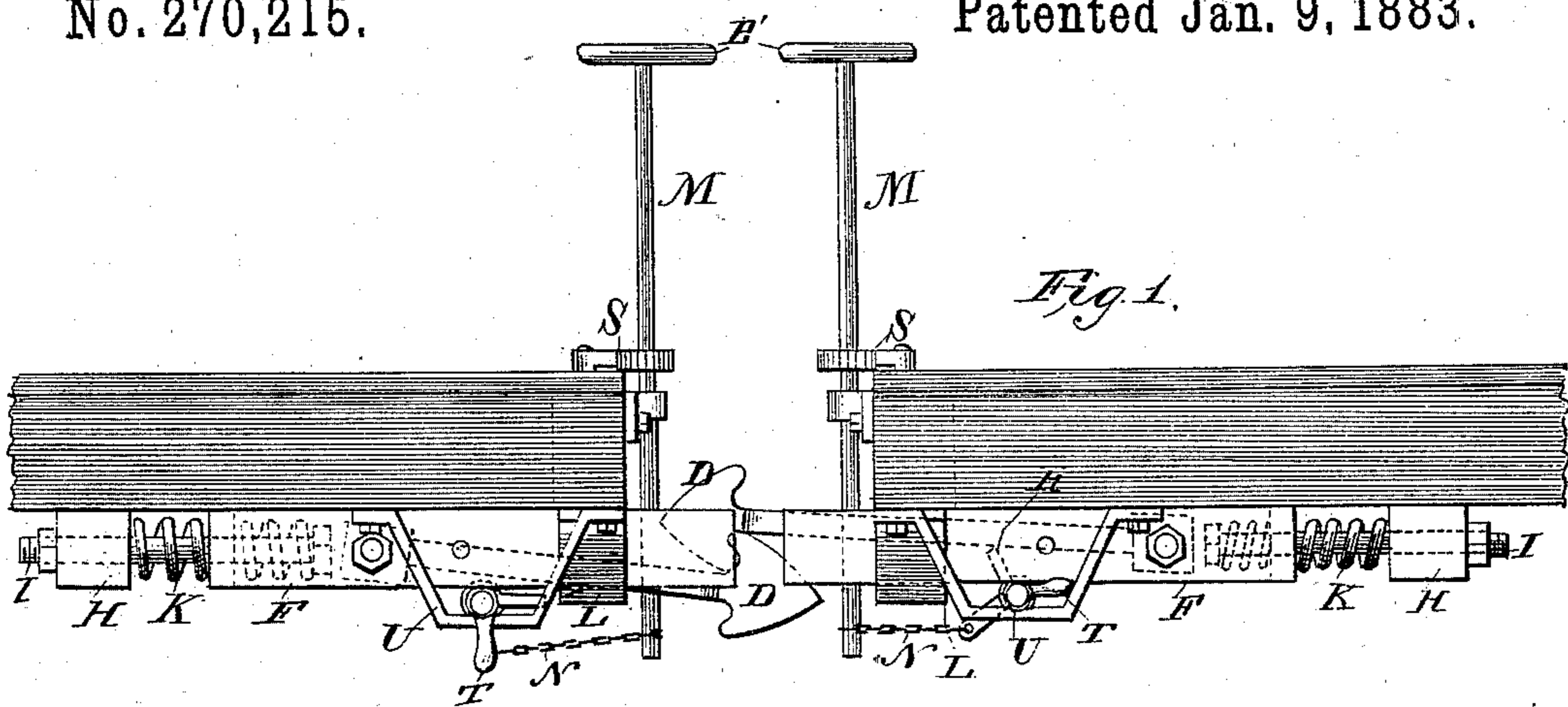


(No Model.)

H. FRASER.  
CAR COUPLING.

No. 270,215.

Patented Jan. 9, 1883.



Witnesses:

*E. P. Thomas*  
*E. W. Erwin*

Inventor:

*Harry Fraser*  
*By Jas. B. Orrin*

Attorney.

# UNITED STATES PATENT OFFICE.

HARVEY FRASER, OF NEPEUSKUN, WISCONSIN.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 270,215, dated January 9, 1883.

Application filed April 10, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HARVEY FRASER, a citizen of the United States, residing at Nepeuskun, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in that class of car-couplers which are adapted to be coupled together automatically and uncoupled from the top or side of the cars, thereby obviating the danger of entering between them.

My improvements pertain more especially, first, to the peculiar form of the coupling-irons; second, to the device for adjusting the coupling-irons at the various angles required to conform to the cars of various heights; third, to the device for uncoupling or disengaging the coupling-irons from each other; and, fourth, to the device by which my coupling is coupled to the ordinary couplings now in use, and by which the point of my coupling is protected from contact with the buffers of the ordinary construction.

The construction and operation of my improved coupler are further explained by reference to the accompanying drawings, in which—

Figure 1 represents a side view. Fig. 2 is a bottom view. Figs. 3 and 4 are detail views. Like parts are represented by the same reference-letters throughout the several views.

A A are the coupling-irons, the heads D of which resemble that of an arrow somewhat in appearance. The projections B B are rounded to conform to the corresponding rounded recesses, C C, for the reception of such projections. The head is beveled from both the top and bottom, and the respective sides forward from the projections B B, converging at a point, E. It is obvious that by thus beveling the sides as well as the top and bottom two approaching couplings cannot, as they might otherwise, engage one against the other, but are adapted to slide one upon the other and pass into the locking position shown in Fig. 1. The rear end of the coupling-iron is attached to the side bars, F F, of the buffer by horizontally-arranged

bolt G, which permits the forward end of the coupler to rise and fall as is is coupled and uncoupled. The bars F F are connected at their rear ends by the iron frame G'. Frame G' is connected with the frame H of the car by bolt I. Heavy spiral springs J K are provided upon the respective sides of the frame G', which relieve the frame and car from the shock otherwise caused by the contact of the cars against each other. The front end of the buffer and the coupling-iron is supported by the keeper L.

As the cars to be coupled approach each other the coupler which is the highest strikes the upper inclined surface of the other coupler and slides upon the same into the locking position, it being immaterial which coupler is above. When the cars vary in height to such an extent that the couplings will not otherwise come in contact, they may be raised or lowered to conform to each other by turning the rods M, when the chains N are thereby wound upon said rods, and, acting through the lever O, shaft P, and lifting-flange R, the coupling-iron is raised, or by a reverse movement of the rod they are lowered, and thus adjusted at the proper heights for coupling automatically. When the couplings are thus adjusted the rods M are retained and the chain prevented from unwinding by an ordinary ratch-wheel and pawl, S. When desirous to disengage the couplings from the top of the cars the operation is performed by turning the rods M, as before mentioned, when the couplers are thrown out of contact. When desirous to uncouple the cars from the ground the shaft P is turned by moving the lever T, when the flange R is thrown upward against the lower side of the coupling, and the couplings thus thrown out of contact. The respective ends of the shaft P are supported by the keepers U.

To provide for coupling with the ordinary couplings, and also to protect the point or forward end of my coupler, I provide a cap, V, the interior of which conforms in shape to the head D of the coupler. The cap V is retained upon said coupler-head by the link W, which engages upon the upper projecting flange, B. It is obvious that the cap thus attached shields the front end of the head from contact with the ordinary couplings and buffers. The cap is also provided with a coupling-link, Y, which

is adapted to be coupled by a pin to the ordinary coupling.

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

1. The cap V, having a recess formed thereon, conforming in shape to the head of the coupler, provided with link W, adapted to engage upon said head, and coupling-link Y, combined and arranged substantially as and for the purpose specified.

2. The device for raising, lowering, and adjusting the coupling, consisting in the combination of rod P, provided with handles T T, lever O, and lifting-flange R, chain N, rod M, provided with an ordinary hand wheel or le-

ver, ratch-wheel, and pawl S, substantially as set forth.

3. The combination of the coupling A, the peculiar-shaped head D, which is provided with rounded flanges B B and recesses C C, and the converging top and side surfaces, bolt G, buffer-bars F F, frames G, bolt I, springs J and K, rod P, handles T, flange R, lever O, chain N, and rod M, all substantially as and for the purpose specified.

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

HARVEY FRASER.

Witnesses:

JAS. B. ERWIN,

EDITH W. ERWIN: