

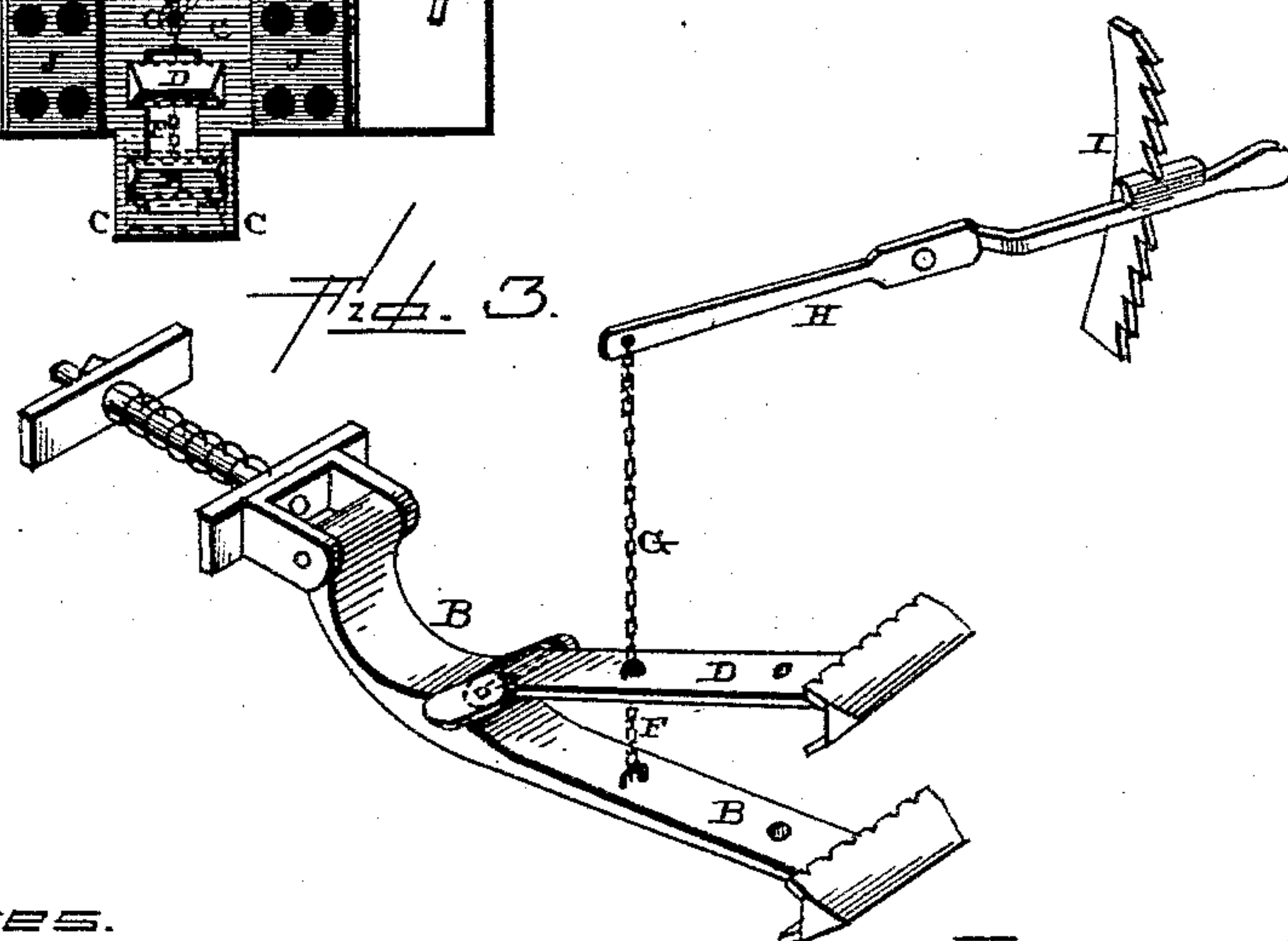
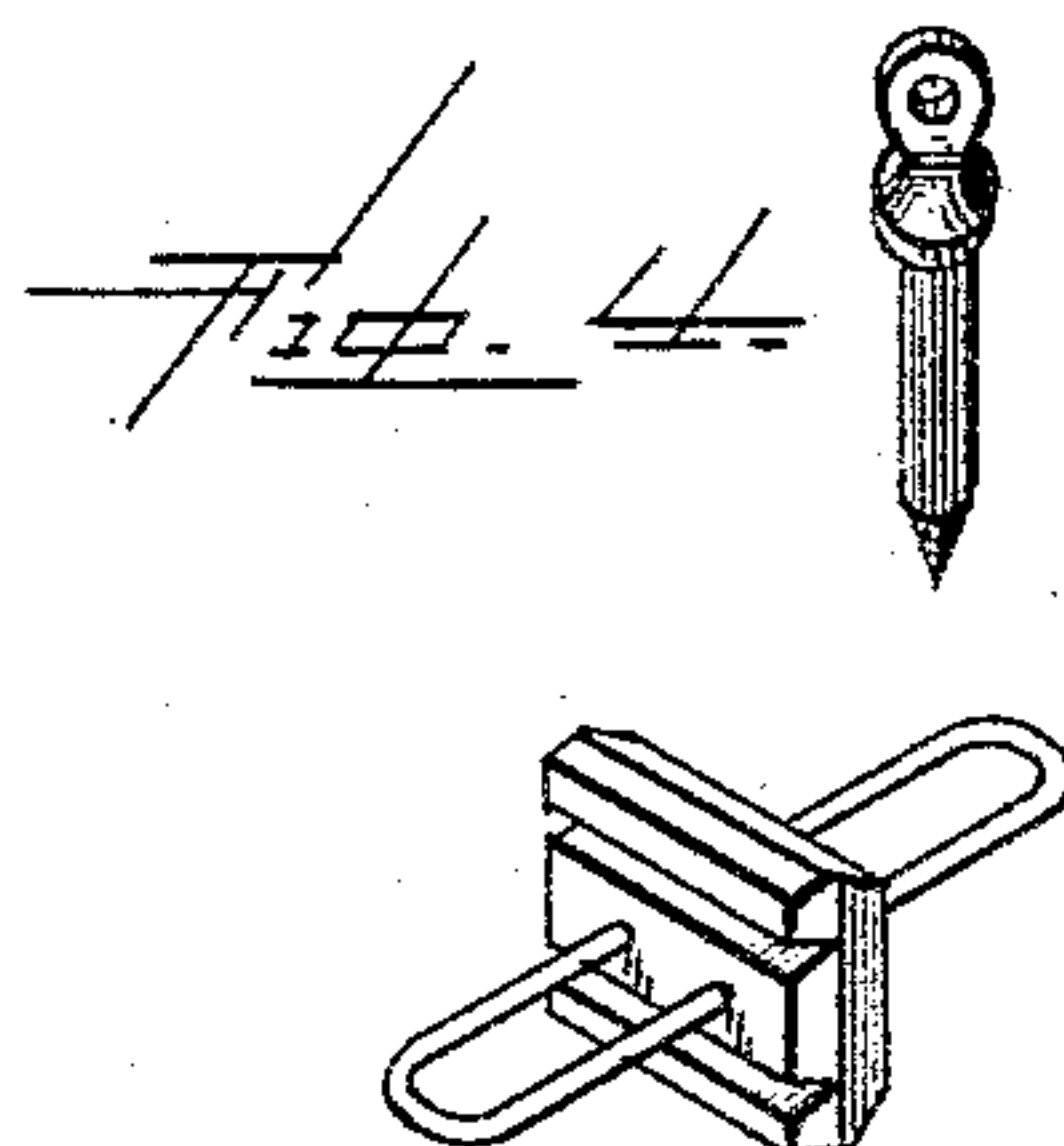
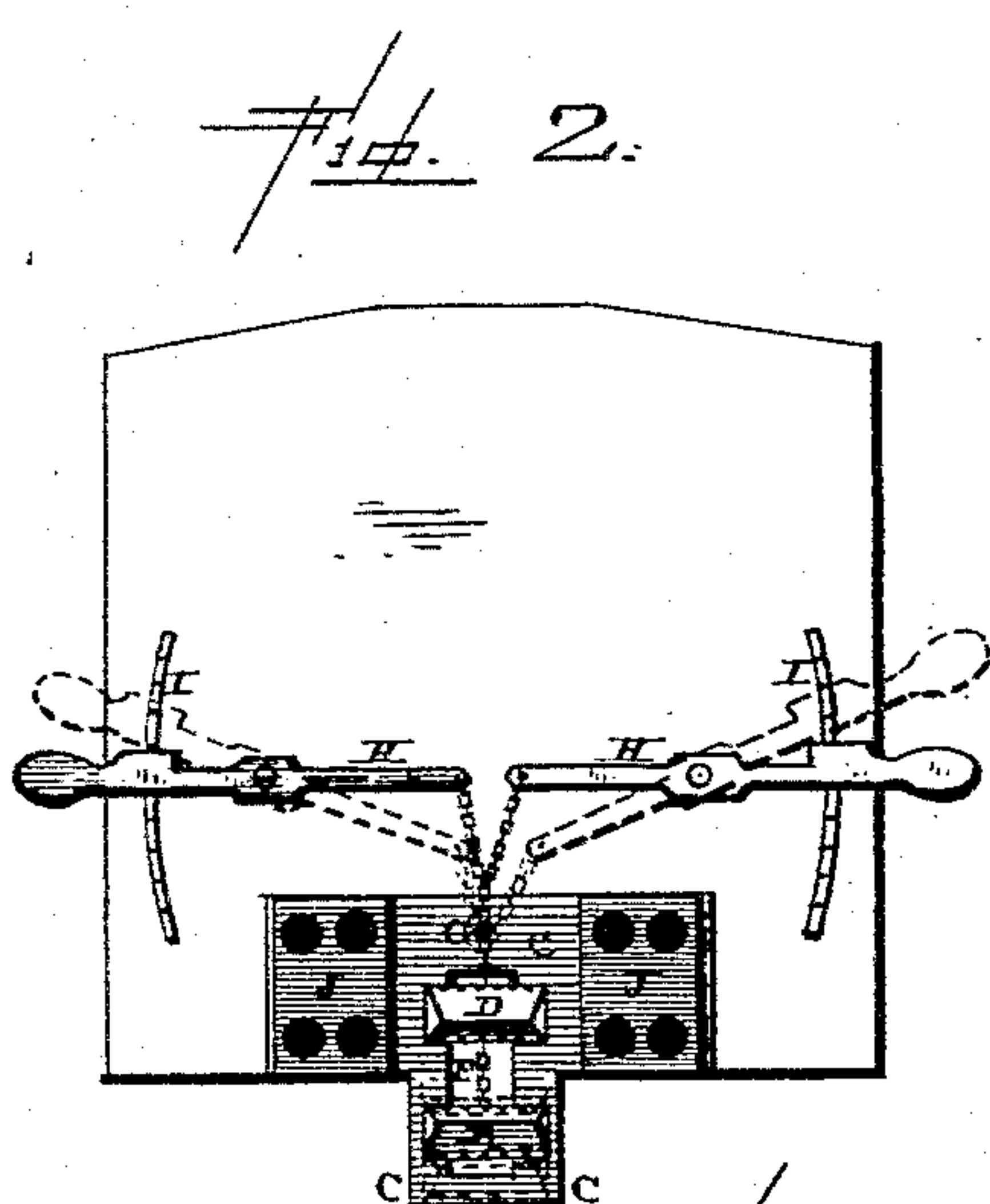
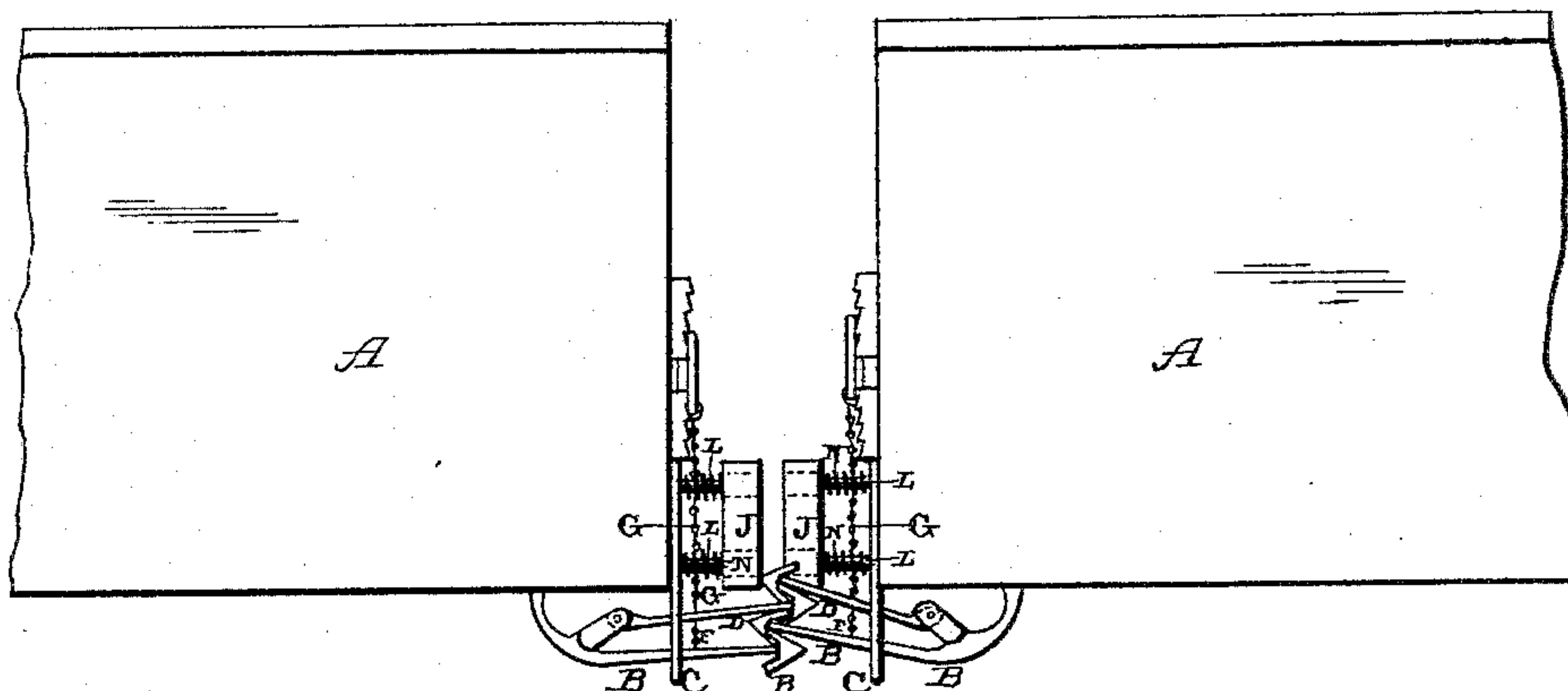
(No Model.)

A. W. BURNHAM.

CAR COUPLING.

No. 388,756.

Patented Aug. 28, 1888.



Witnesses.  
Louis T. Gardner  
Allen J. Patterson

Inventor.  
A. W. Burnham.  
per J. A. Lehmann, atty



# UNITED STATES PATENT OFFICE.

ARTHUR W. BURNHAM, OF BALLSTON, NEW YORK.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 388,756, dated August 28, 1888.

Application filed May 21, 1888. Serial No. 274,489. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR W. BURNHAM, of Ballston, in the county of Saratoga and State of New York, have invented certain new and  
5 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 the art to which it pertains to make and use it, reference  
10 being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in automatic car-couplings; and it consists in the combination of the main jaw pivoted at its  
15 rear end to a suitable support, with a shorter jaw pivoted at its rear end to the main jaw, a loose connection for uniting the two jaws, and a lever connected to the jaws for raising or lowering them together or adjusting the up-  
20 per jaw independently of the lower one, as will be more fully described hereinafter.

The object of my invention is to provide an automatic coupling for railroad-cars in which two jaws loosely connected together are made  
25 to form the coupling, and which are automatic in their operation, so as to prevent the necessity of the brakeman getting between the cars in the act of coupling or uncoupling them.

Figure 1 is a side elevation of a car-coupling which embodies my invention. Fig. 2 is an end view of the same. Fig. 3 is a perspective of a coupler by itself. Fig. 4 is a detached  
30 view of a coupling link and pin which is to be used when a car having my coupler comes in contact with a car having the old form of draw-head.

A represents the body of the car, and B the head, which is pivoted at its rear end, so that it can be freely raised and lowered through  
40 the slot in the casting or plate C, which is secured to the end of the car, and which plate has its slotted portion to project downward in proportion to the distance that the draw-head is to drop. To the inner end of the head B is  
45 secured the usual spring for easing the jar caused by the cars drawing and running together. The outer end of this head B is shaped, as shown, so that it will couple with another head either from above or below, according to  
50 its position when the cars run together. Pivoted

upon this head B is a jaw, D, which extends parallel with the outer end of the head when it is left free to move, and which has its outer end shaped like the head B, so as to couple with the head of an adjoining car. This jaw  
55 D is also connected to the head B by means of a chain, F, which regulates the distance that the jaw D shall be raised, and to the upper side of this jaw is fastened a chain, G, to which the inner ends of the two levers H are con-  
60 nected. The levers H are pivoted upon the end of the car and have their outer ends to project beyond its sides far enough to be readily operated from the side of the car without the brakeman having to venture between  
65 them at any time for the purpose of coupling or uncoupling. Also secured to the end of the car is a ratchet, I, for each lever, which serve to hold the levers in any position into which they may be adjusted.

When the head B is in the bottom of the slot in the plate C and one of the levers H is operated, it first raises the jaw D upward as far as the chain F will allow without in anywise  
70 affecting the head B itself. If the movement of the lever is continued, then both the jaw and the head are raised, the two being separated as far as the chain F will allow. When raised to their full height, they will not couple  
75 with another car, because the ends of the jaw and head are held in such a position that they will not engage with the approaching head.

Instead of having the usual narrow platforms at the end of freight-cars, I use two blocks, J, which have holes through them, and  
80 through which holes project the outer ends of the rods L, which project from the plates C upon the end of the car. Upon these rods L, between the plates C and the blocks J, are placed springs N, which instantly move the  
85 blocks outward, after having been forced inward by the running together of the cars, as soon as they are left free to do so. The headed ends of the rods L catch in the inner ends of the openings through the blocks, and when  
90 the blocks are forced inward they move upon the bolts as far as the springs permit them. The heads of the bolts never project through the outer ends of the openings, so as to be endangered by the cars running together.



If a car having my improved coupling connected to it is brought in contact with a car having an old form of draw-head, then a coupling link and pin such as shown in Fig. 4 will  
5 be used. The grooves in its inner side catch over the upper ends of the jaw and head, so as to be supported in position, and the link is then secured to the coupling by means of an ordinary coupling-pin, which is passed down  
10 through the jaw and head for that purpose.

Having thus described my invention, I claim—

1. The combination of a jaw, B, pivoted at its rear end to a suitable support, with the jaw  
15 D, pivoted at its rear end to the jaw B, a loose

connection for uniting the jaws, and a lever connected to the jaws for raising or lowering them together or adjusting the upper jaw independently of the lower one, substantially as shown.

20

2. The combination of the pivoted head B, the jaw D, pivoted thereto, the coupling-chains F G, the levers H, and the ratchets I, substantially as set forth.

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

ARTHUR W. BURNHAM.

Witnesses:

CAMERON J. MCGARR,  
WILLIAM W. SPEIS.