

No. 682,253.

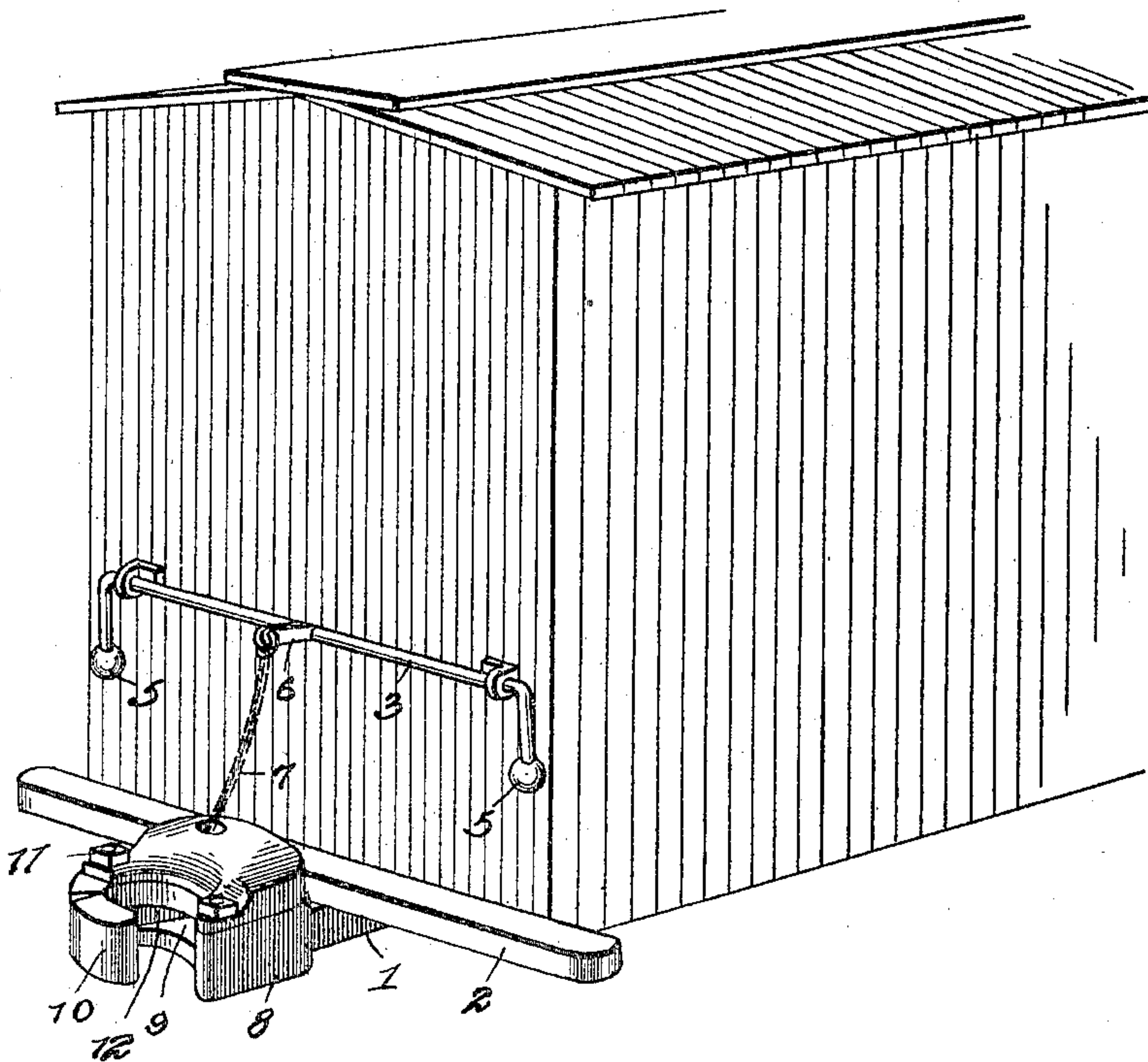
Patented Sept. 10, 1901.

G. C. HARLIN.  
CAR COUPLING.

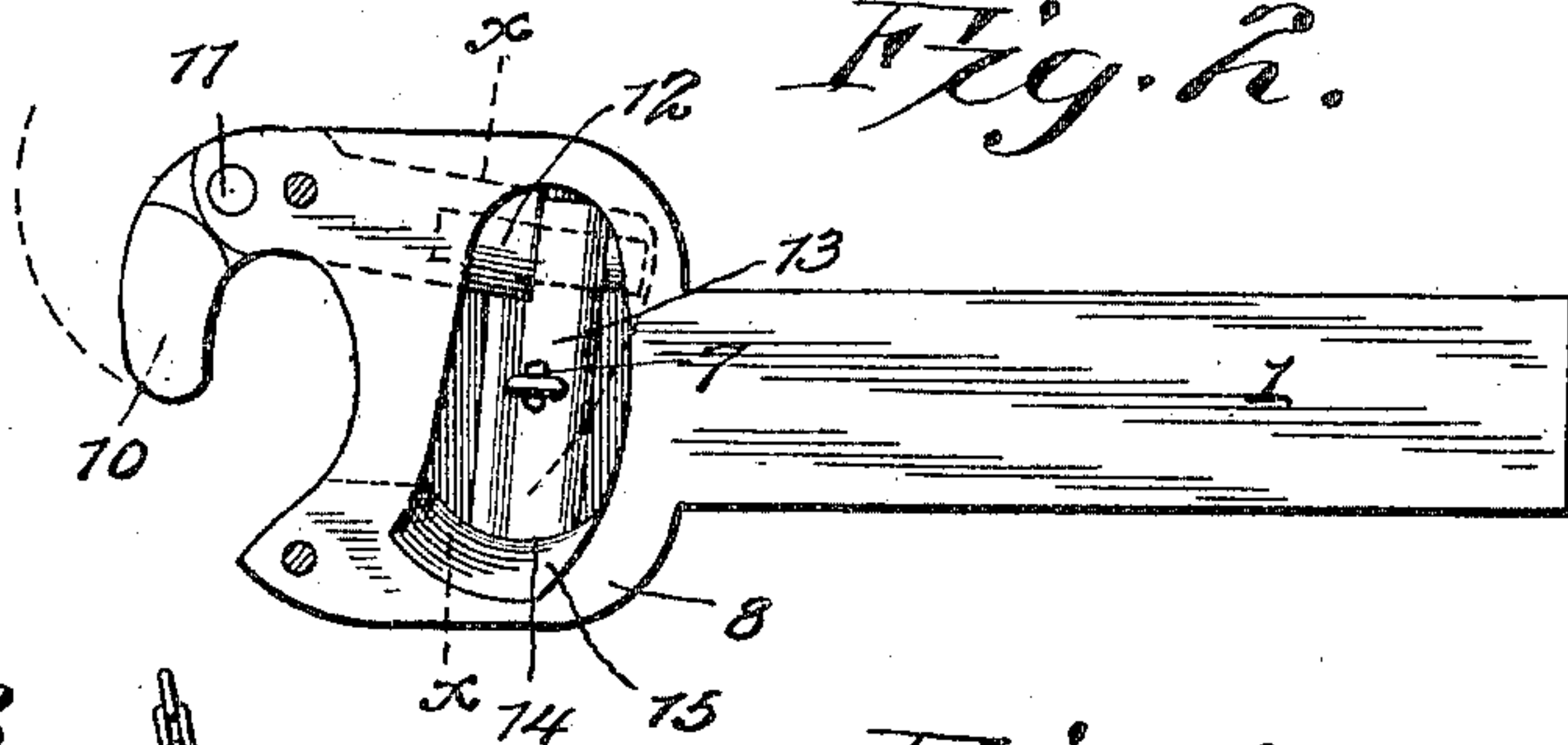
(Application filed Nov. 21, 1900.)

(No Model.)

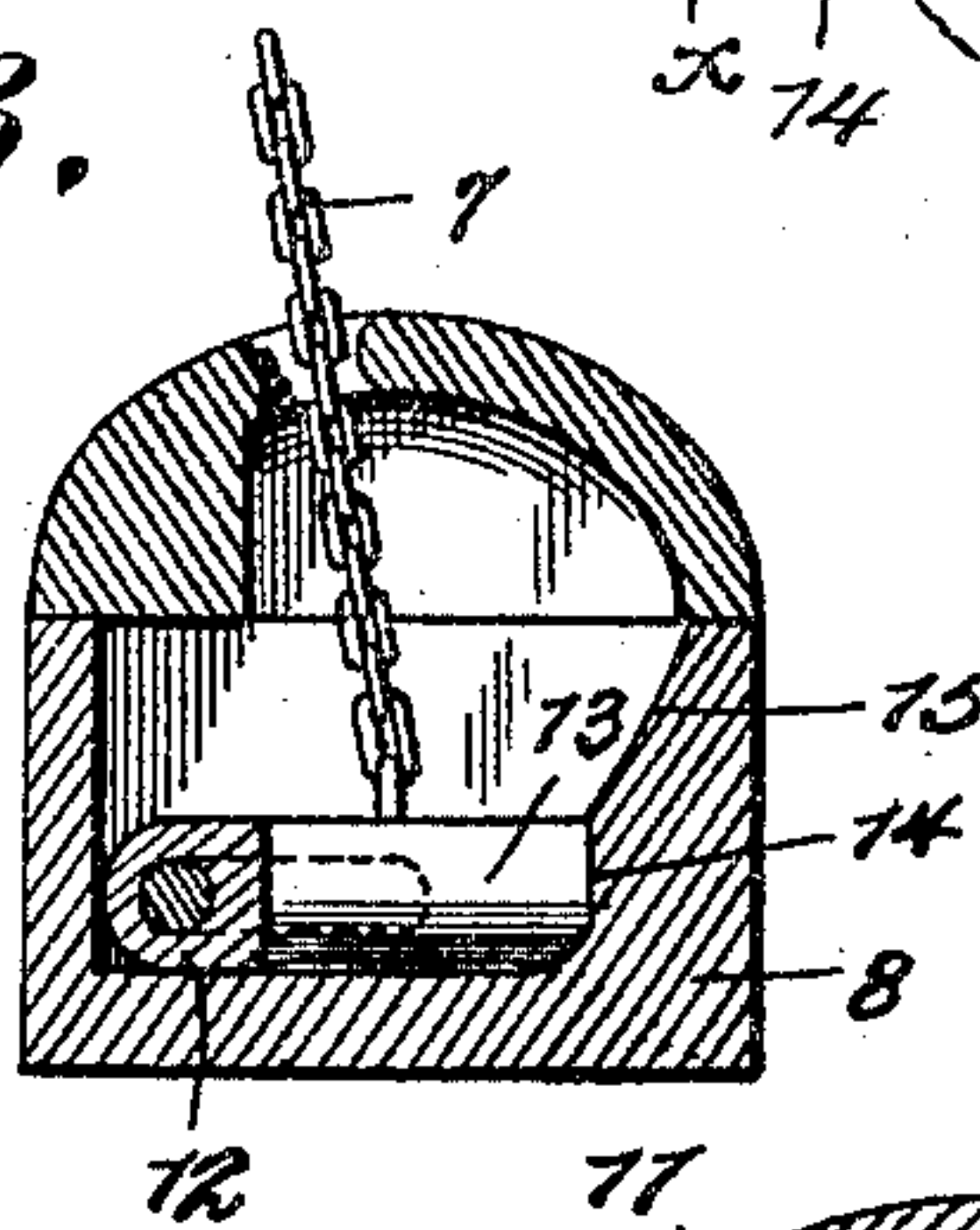
*Fig. 1.*



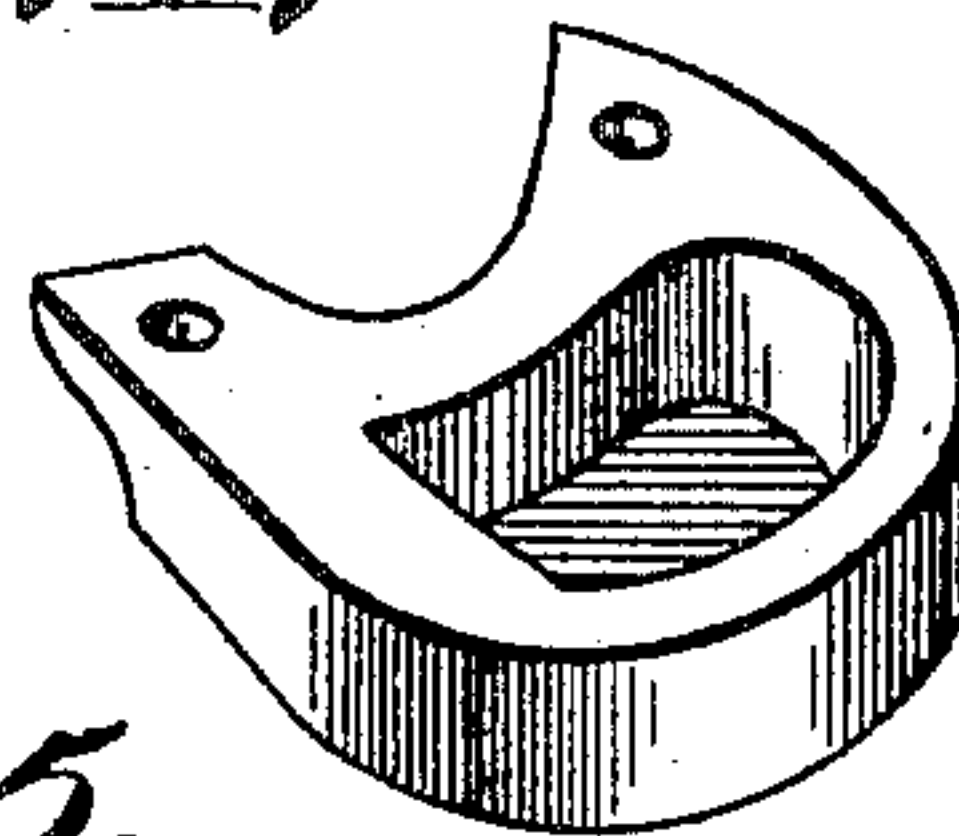
*Fig. 2.*



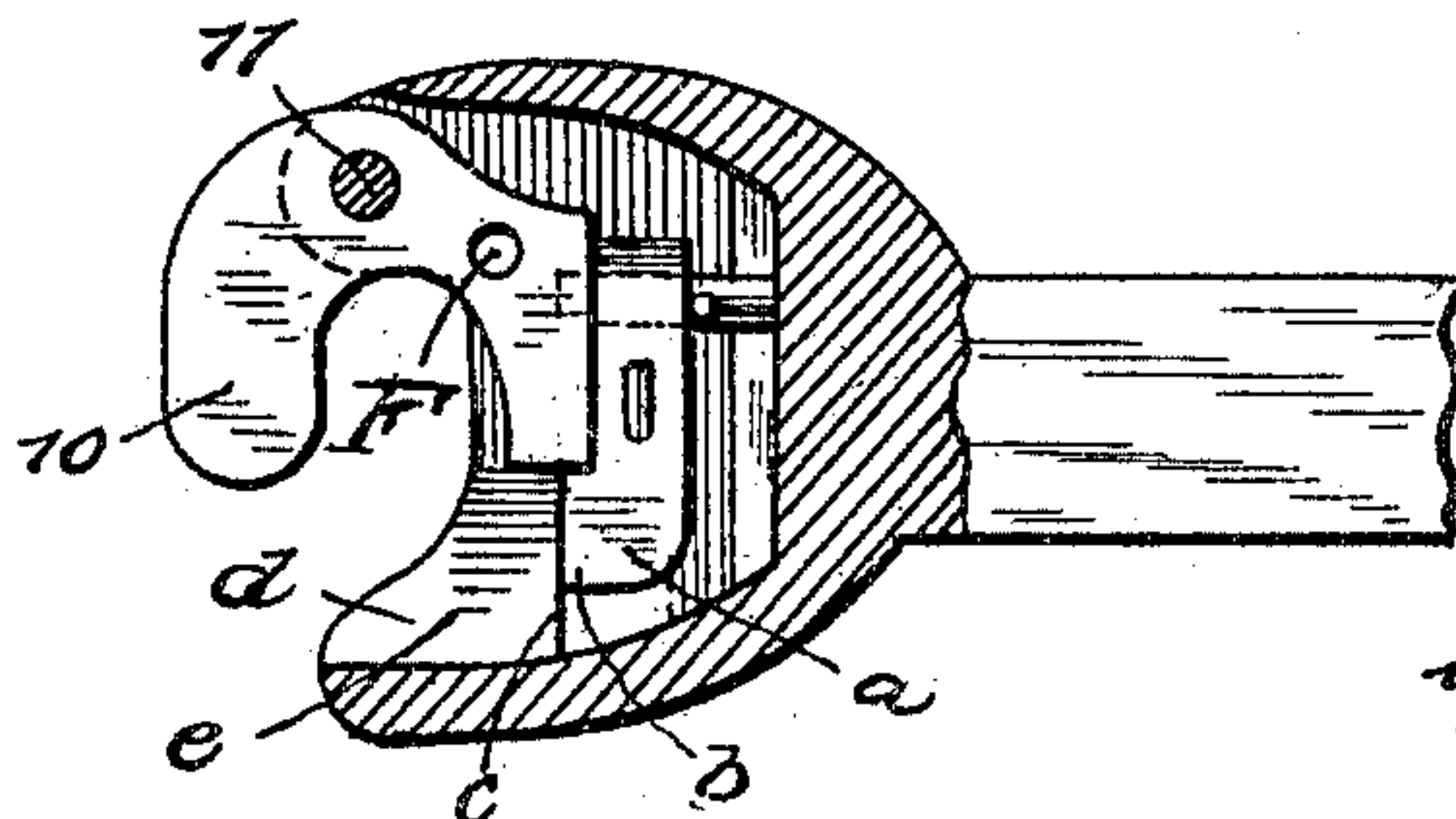
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses  
*G. H. Arlan*  
*D. P. Crowl*

Inventor  
*George C. Harlin*  
by *Frank S. Appleman*  
Attorney



# UNITED STATES PATENT OFFICE.

GEORGE C. HARLIN, OF STOCKTON, CALIFORNIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 682,253, dated September 10, 1901.

Application filed November 21, 1900. Serial No. 37,281. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE C. HARLIN, a citizen of the United States of America, residing at Stockton, in the county of San Joaquin and State of California, 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.

10 This invention relates to car-couplers, and particularly to that class known as the "Janney" type.

The object of the invention is to provide novel means whereby a central draft is effected on curves, so that the side thrust and strain incident thereto will be to a great degree overcome.

15 Furthermore, the object of the invention is to provide means whereby the couplers are detached automatically in case either of the cars leaves the track.

Furthermore, the object of the invention is to provide novel means whereby the coupling-hook is held against displacement except in case of one of the cars leaving the track, said securing means being so arranged as to be under the control of an operating-lever extending to the side of the car.

20 Furthermore, it is my purpose to provide means whereby the hook when released will be swung on its pivot by the member which held it in place.

25 With the above and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and specifically claimed, whereby a coupler is produced which will prove strong, durable, efficient, and satisfactory in use and comparatively cheap to manufacture.

30 In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, and in which like characters denote corresponding parts in the several views, and in which—

35 Figure 1 is a view in perspective of a car with the coupler attached. Fig. 2 is a plan view of the coupler. Fig. 3 is a sectional view taken on a line corresponding with  $xx$  of Fig. 2. Fig. 4 is a view in perspective of

the top plate; and Fig. 5 is a plan view, partly in section, showing a modified construction.

In the drawings, 1 indicates the draw-bar; 2, a portion of a car-beam; 3, a lever pivoted thereto, having ends at an angle to the central portion. The ends are provided with weights 5, which hold the ends of the lever down when the coupler is out of operative position. The lever is furthermore provided with an arm 6, to which is connected a chain or other flexible connection 7.

40 The draw-head 8 may be of any ordinary construction; but in view of the universal use in this country of the type of coupler which automatically engage, the usual link-recess may be omitted. The draw-head is provided with an opening 9, in which is pivotally seated a hook 10. The hook is secured by a pivotal pin 11. The rear end of the hook 10 terminates in a tongue 12, which is engaged by a keeper 13, seated in an approximately transversely-disposed recess in the draw-head, said keeper engaging a shoulder 14 of the draw-head. By this means swinging of the hook is prevented and its disengagement with the opposite hook is obviated. The end of the keeper remote from the hook has a flexible connection 7 under the control of the arm 6 of the lever 3, and as such lever is operated the keeper is withdrawn from engagement with the shoulder of the draw-head. From an inspection of the connection shown in Fig. 3 it will be observed that as the keeper swings clear of the shoulder the connection 7 will tend to elevate said keeper, and at the same time swing the coupling-hook. The wall 15 is inclined, and in case a car leaves the track the keeper will swing the tongue of the hook out of engagement with the shoulder and will ride over the inclined wall to permit the hook to swing out of engagement with the hook on the opposite car. It is noted that the weight of the keeper 13 will cause the end to fall out of engagement with the shoulder of the draw-head as the car overturns, thus effecting a disengagement and allowing the parts to uncouple.

45 In the construction shown in Fig. 5 the keeper  $a$  is provided with an angular end  $b$ , the



which contacts with the shoulder *c* of the web *d*, formed with the draw-head. The upper surface *e* of the web is beveled somewhat in order that the keeper may ride over said surface and fall by gravity in engagement with the shoulder in the rear. The aperture *f* is provided for the purpose of permitting the insertion of a retaining-pin in case any of the parts break, said pin being shown in section in Fig. 2.

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

1. In a car-coupler, a draw-head having an internal shoulder and a beveled inner wall extending upwardly from the shoulder, a hook pivoted in the draw-head, a keeper pivoted to the hook and having its end engaged by the shoulder, the parts being so arranged as to cause the end of the keeper to ride up the inclined wall of the draw-head when displaced

from engagement with the shoulder, while the hook is under tension.

2. In a car-coupler, a draw-head having an internal shoulder and a beveled inner wall extending upwardly from the shoulder, a hook pivoted in the draw-head, a keeper pivoted to the hook, and having its end engaged by the shoulder, the parts being so arranged as to cause the end of the keeper to ride over the inclined wall of the draw-head when displaced from engagement with the shoulder, and a flexible connection in such relation to the keeper as to elevate the same and actuate the hook.

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

GEORGE C. HARLIN.

Witnesses:

O. B. PARKINSON,  
LA REINA JONES.