

No. 660,652.

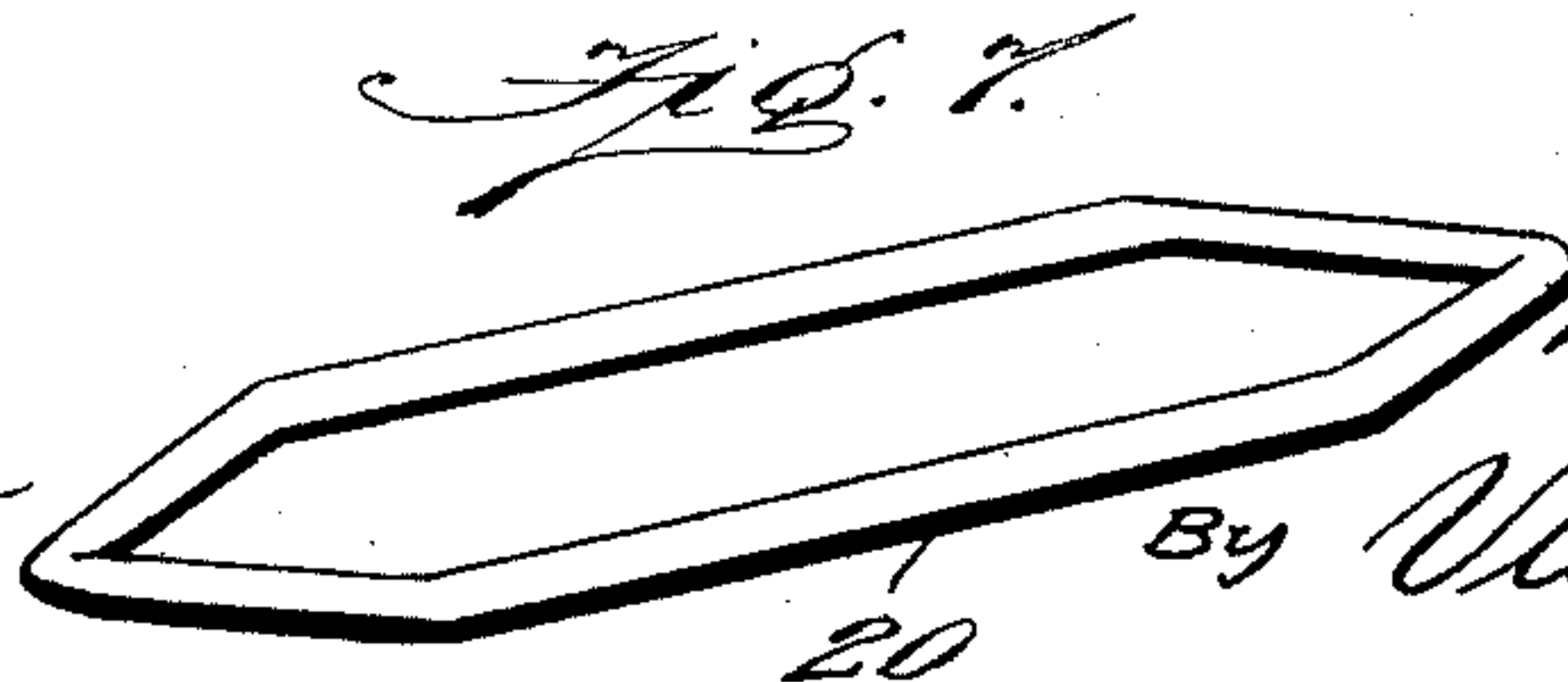
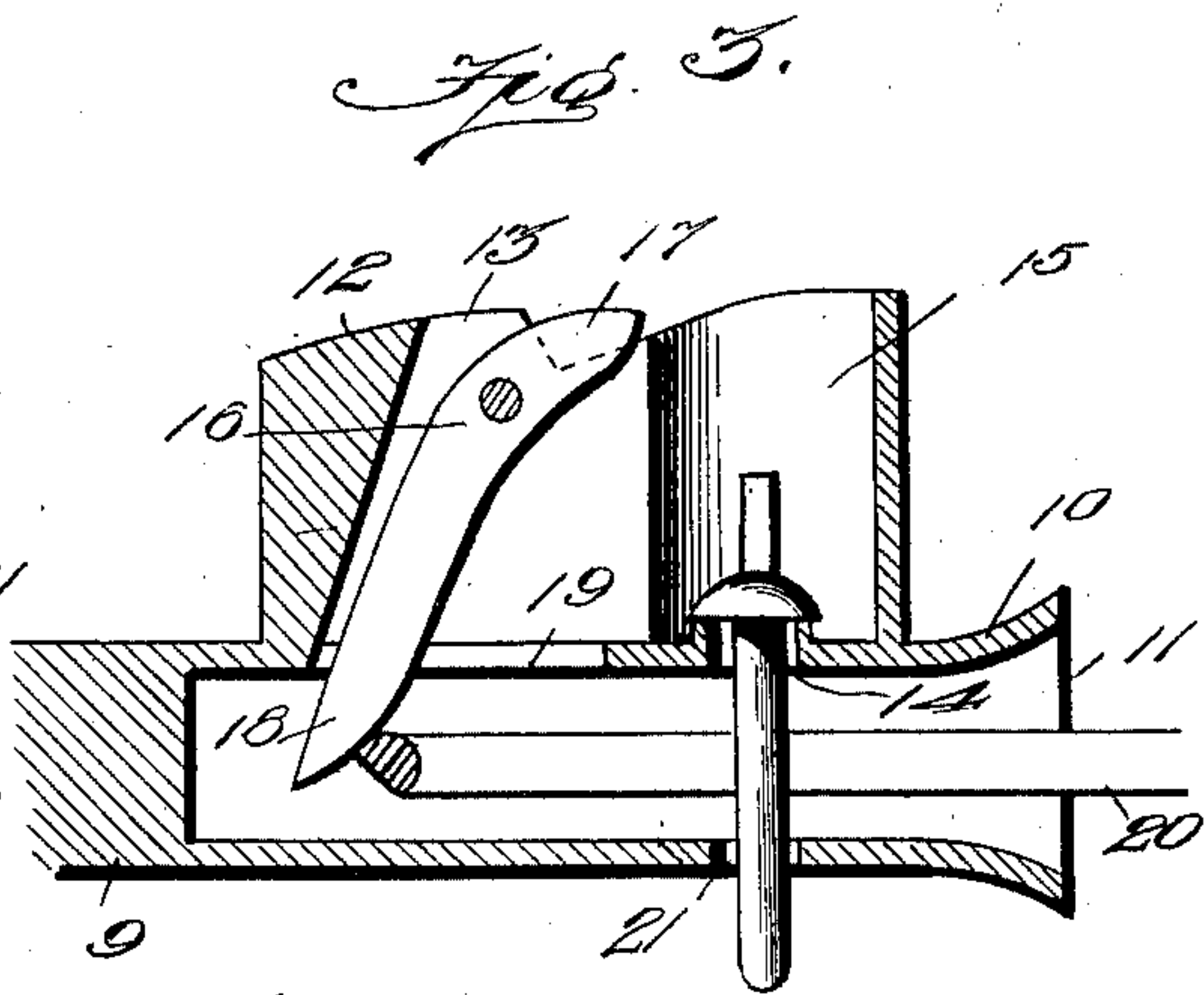
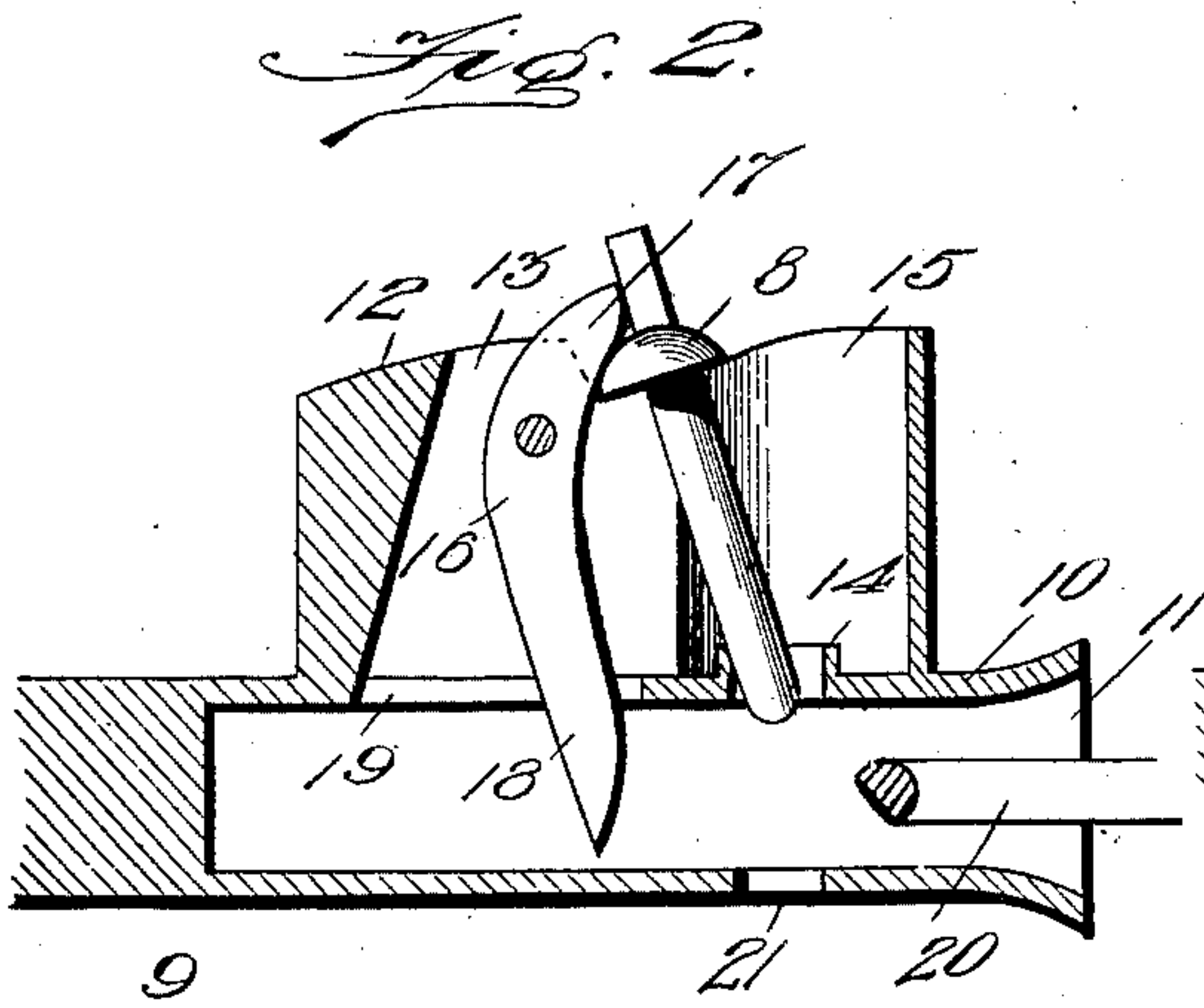
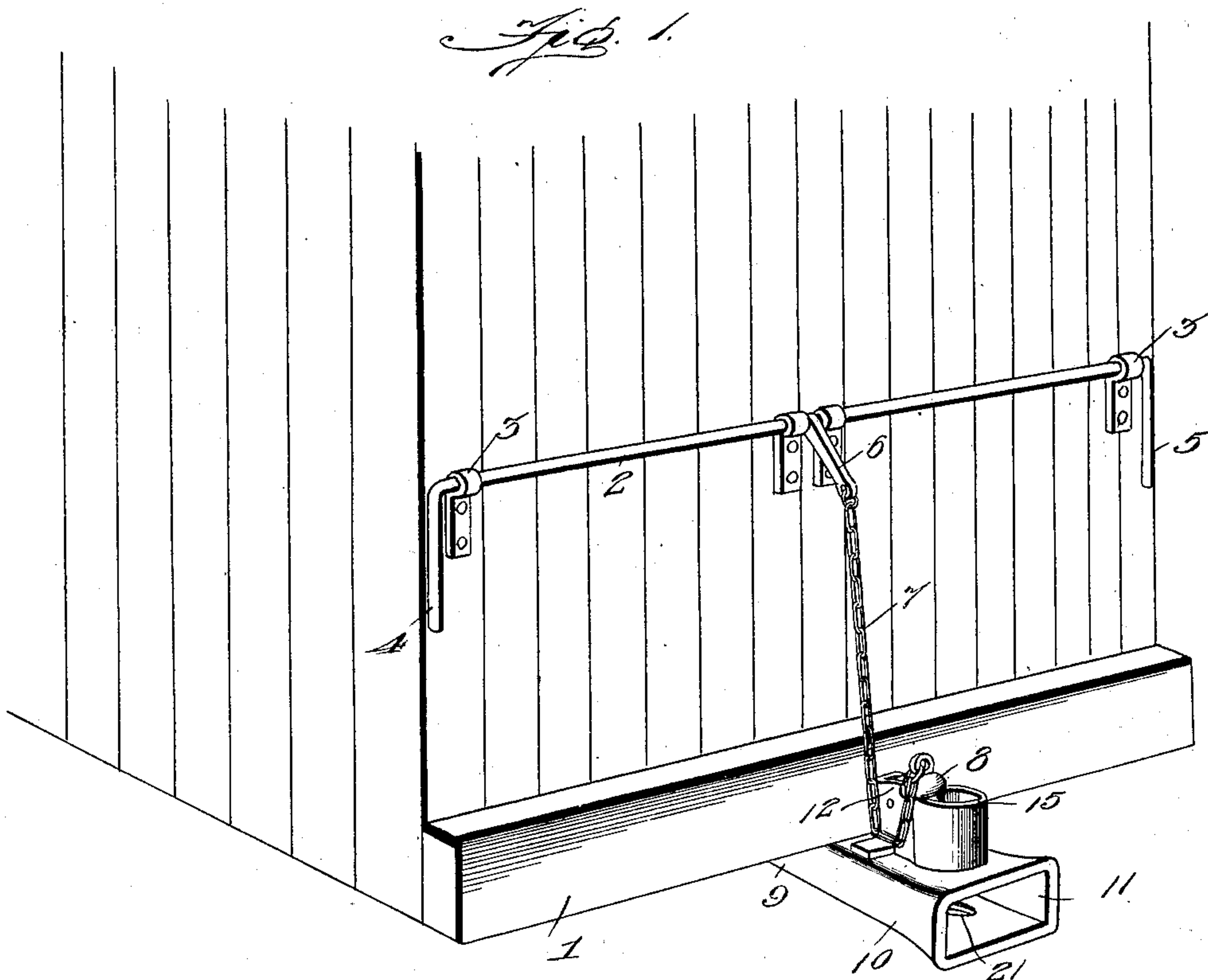
Patented Oct. 30, 1900.

W. S. OWEN.
CAR COUPLING.

(Application filed May 31, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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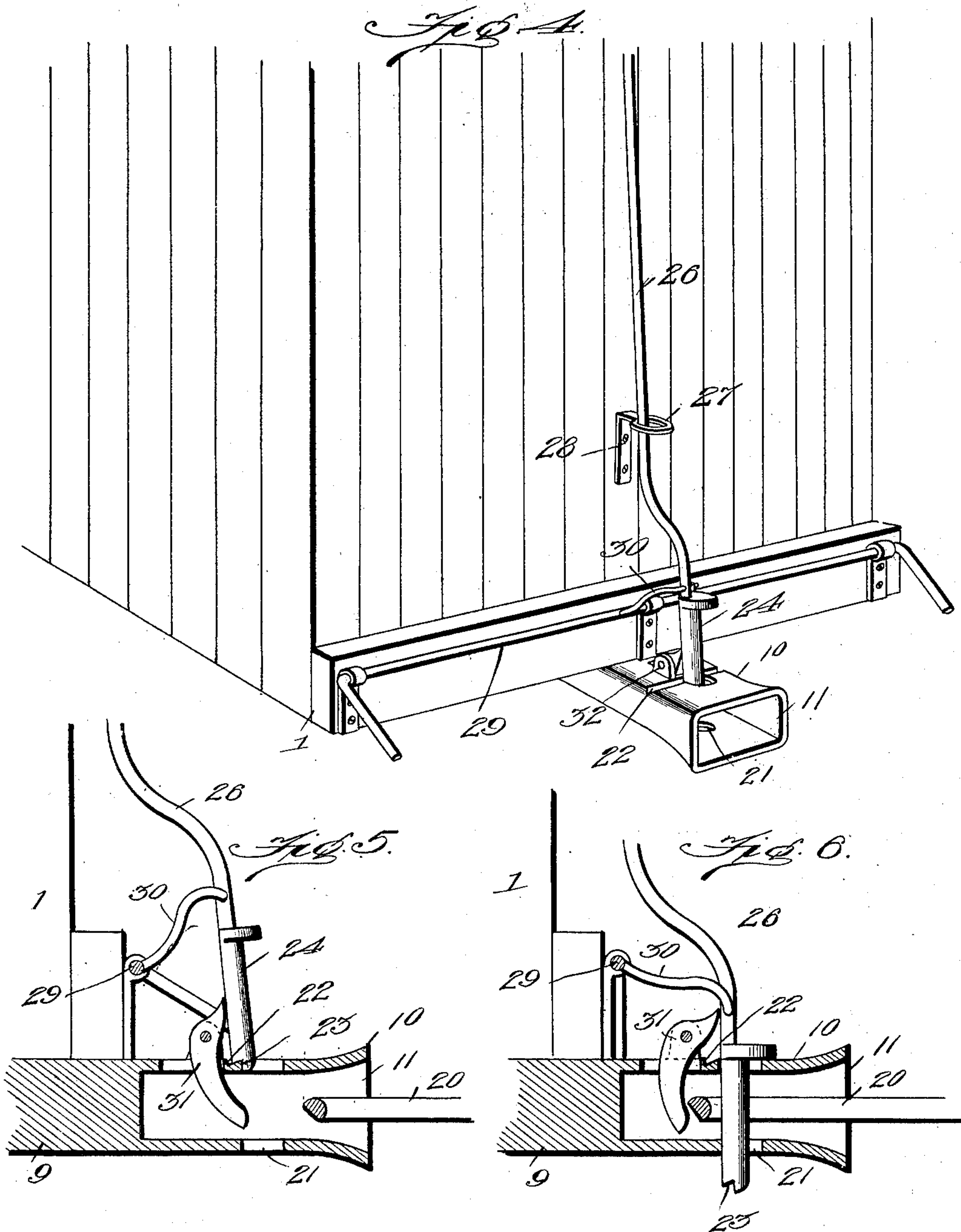
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

WILLIAM S. OWEN, OF TYNDALL, SOUTH DAKOTA:

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 660,652, dated October 30, 1900.

Application filed May 31, 1900. Serial No. 18,568. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. OWEN, a citizen of the United States, residing at Tyndall, in the county of Bonhomme and State of South Dakota, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification.

This invention relates to the general class of car-couplers, but more particularly to a coupler wherein the pin is suitably supported upon the draw-head and adapted to drop by gravity in engagement with the link when two cars come together.

The object of the invention is to produce a cheap, durable, and efficient means for coupling cars, and the manner of attaining this object, together with the details of construction embodied in the invention, will be fully set forth in the following description and illustrated in the accompanying drawings.

In the drawings, Figure 1 represents an end view of a car to which the invention is attached. Fig. 2 is a vertical longitudinal sectional view of a coupler constructed in accordance with my invention, showing the pin in an elevated position. Fig. 3 is a similar view illustrating the position of the coördinating parts after the pin has been thrown into engagement with the link. Figs. 4, 5, and 6 are views similar to Figs. 1, 2, and 3, respectively, but of a slightly-modified form; and Fig. 7 is a detail perspective view of a preferred form of link.

Referring now to the drawings by reference-numerals, 1 designates a portion of a car, on the end of which is arranged a transverse shaft 2, loosely mounted in bearings 3 and provided at its respective ends with right-angular extensions or levers 4 and 5, within easy reach of the operator, to raise the coupling-pin, as will be presently explained.

Centrally of the shaft 2 and projecting therefrom outwardly and immediately over the draw-head is an arm 6, from which is suspended a chain or flexible connection 7, connecting said arm with the headed coupling-pin 8.

The draw-bar 9 may be connected to the car in any well-known manner, so the draw-head 10 projects a suitable distance from the end of said car to insure the perfect operation of the coupler. This draw-head is pro-

vided with a flaring or bell-shaped mouth 11, and projecting from the top of said head is an upwardly-projecting flange or pin support 12, having a keyhole-shaped slot therein, so that when the pin is raised the head thereof will rest upon the two parallel walls of the restricted portion 13 of the slot, and the free end of said pin will barely lie within the opening 14 in the top of the draw-head and which communicates with the enlarged recess 15 of the slot, heretofore referred to.

Pivotaly secured between the parallel walls of the restricted portion 13 is a curved dog or pin throwing pawl 16, the curved end 17 of which normally rests upon and in engagement with the headed pin 8, so that when the cam-face 18^a of the long arm 18 of said dog or pawl, which projects through the elongated slot 19 in the head, is struck by the bevel-headed link 20 the pin will be thrown forward to a vertical position and will drop by gravity through the openings 14 and 21 to securely lock the link in engagement with the draw-head. The opening 14 being only large enough to permit the pin to slide therein, its downward movement will be limited by the contact of the head of said pin with the top of the draw-head.

The purpose of providing a bevel-ended link and a flared mouth to the draw-head is to enable the cars to be readily coupled even when the draw-heads on the respective cars are out of alinement, as is often the case in actual practice.

In the modified form the flanged pin-support is dispensed with, and in lieu thereof an approximately V-shaped groove 22 is provided transversely across the top of the draw-head, immediately in rear of the opening 14, to be engaged by the correspondingly cut-out portion 23 of the coupling 24 when the cars are uncoupled.

The pin may be raised to its normal position from the top of the car, as shown in Figs. 4 and 5, by means of the vertical operating-rod 26, rigidly connected thereto and loosely mounted in the enlarged slot 27 of the keeper 28. When it is desired to operate the device from the ground, this can be readily accomplished through the medium of the rock-shaft 29 and its connecting-fingers 30, which are in engagement with the pin.

The dog or pawl 31 is pivotally secured between two projecting ears or arbors 32 and will depose the pin from its seat in a manner similar to that described with reference to the preferred construction. (Shown in Figs. 1, 2, and 3.) However, in this construction the short end of the dog 31 normally abuts against the rear side of the pin instead of resting against the head thereof.

Of course it will be seen that either form of the device may be readily operated from the top of a box-car by arranging an operating-rod—such, for instance, as is shown in Fig. 4; but on flat-cars this rod would not be employed.

From the foregoing it will readily be seen that I have provided a cheap, durable, and simple car-coupling which will readily answer to the demands of the "craft" and which can be automatically operated without the necessity of the operator's presence between the cars, thus avoiding accidents to his person, such as quite frequently occur when the common construction of pin-and-link coupling is used.

I claim—

1. In a pin-and-link car-coupler, the combination with a draw-head provided with a flared mouth, of a flanged pin-support projecting from the top of said draw-head, and having a restricted portion on which the head of the pin rests, and a pivoted dog carried by said support and normally resting against the pin, the lower end of said dog extending within

the draw-head to be struck by a link to throw the pin in engagement therewith.

2. In a car-coupler, the combination with a draw-head, having two alining openings for the reception of a pin, of a pin-support projecting from said head, and having an enlarged portion and a restricted portion, a headed pin adapted to normally lie above the head with its head resting upon the walls of the restricted portion of the support, and a pivoted dog carried by support normally lying against the pin and adapted to unseat the same by contact with a link and allow the pin to drop in the above-mentioned openings.

3. In a car-coupler, the combination with a draw-head, having two alining openings for the reception of a pin, of a pin-support projecting from said head, and having an enlarged portion and a restricted portion, a headed pin adapted to normally lie above the head with its head resting upon the walls of the restricted portion of the support, a pivoted dog carried by support normally lying against the pin and adapted to unseat the same by contact with a link and allow the pin to drop in the above-mentioned openings, and means for raising the pin to its normal position.

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

WILLIAM S. OWEN.

Witnesses:

E. L. RADACK,
H. THORNER.