E. POSSON.

EMERGENCY CAR COUPLING.

APPLICATION FILED JULY 3, 1908.

940,553.

Patented Nov. 16, 1909.

5 SHEETS—SHEET 1.

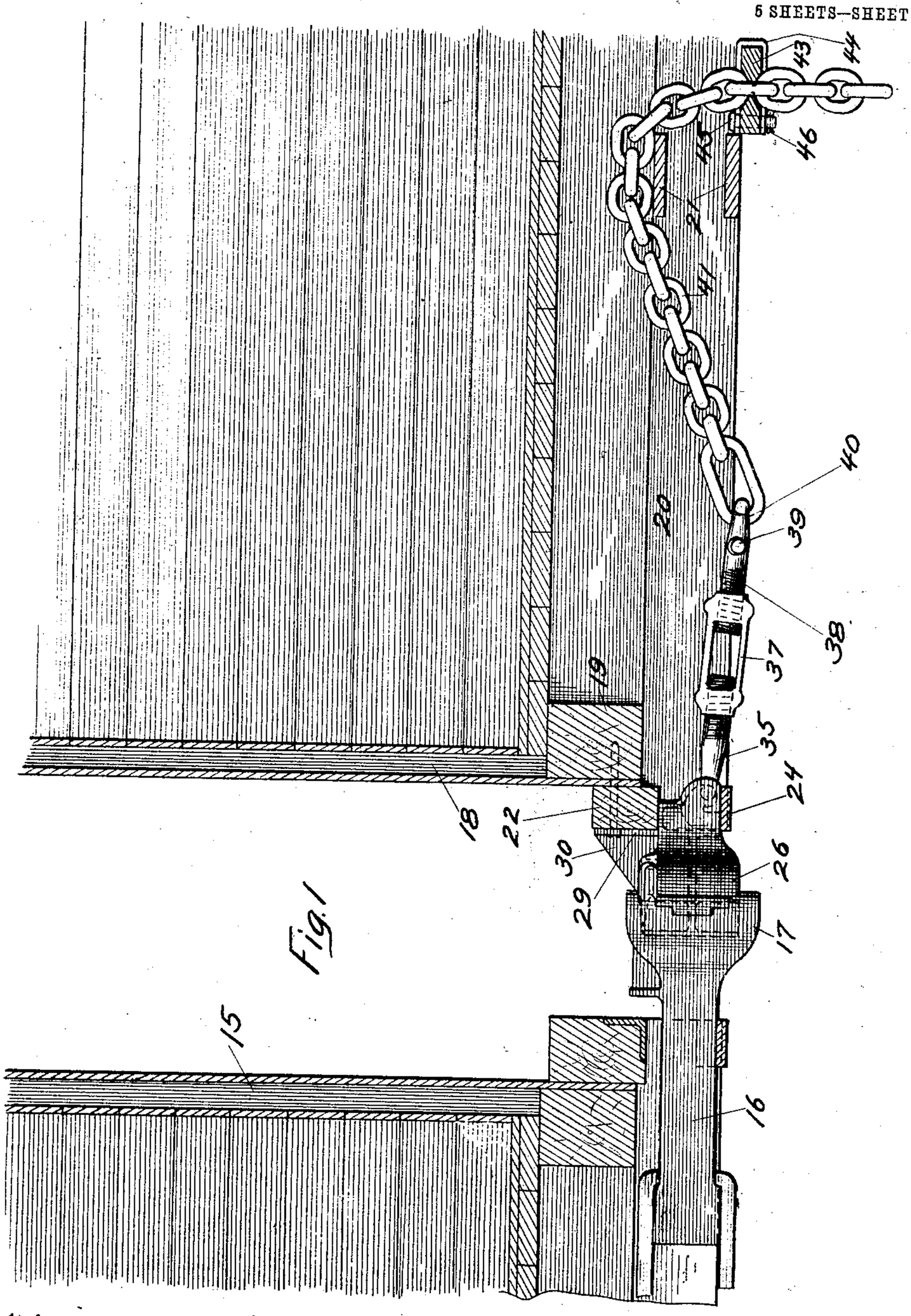

Fig. 1

Witnesses
Lillian A. Kibby
Anna L. Savoie

Inventor:
Edward Posson
By Sheridan and Wilkinson
Atty's

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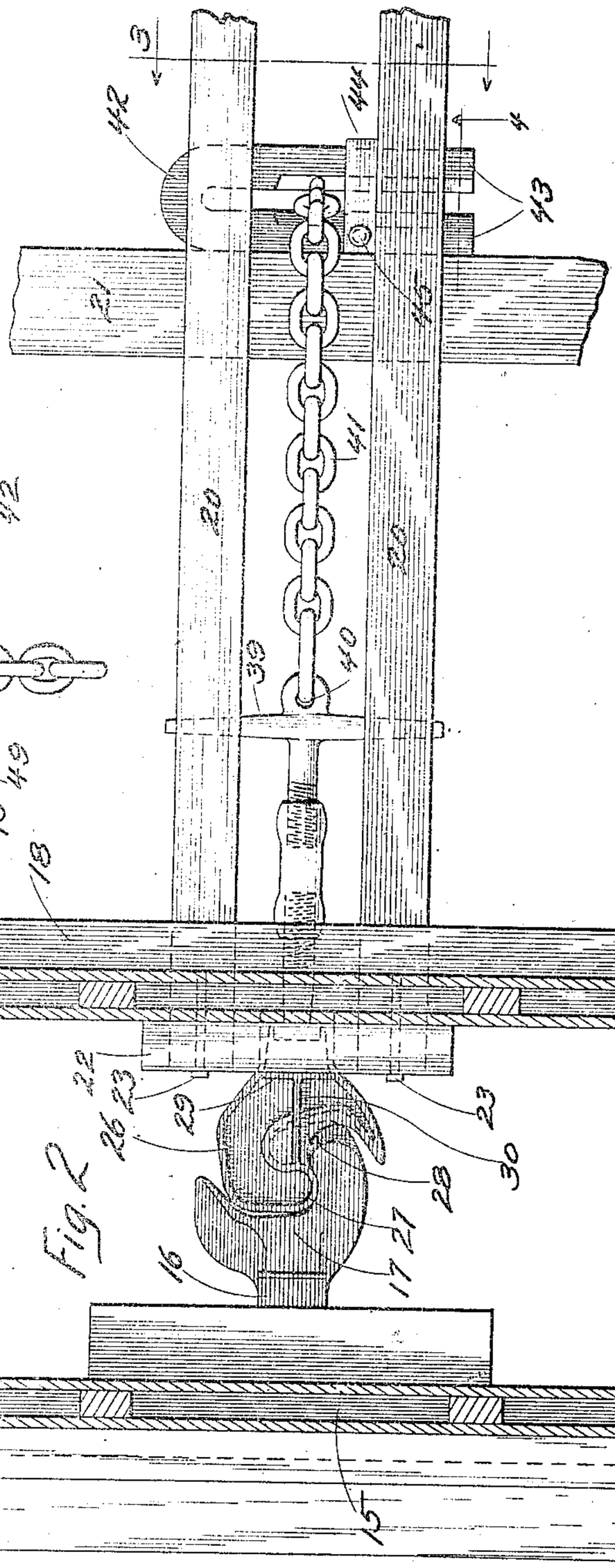


Fig. 3.

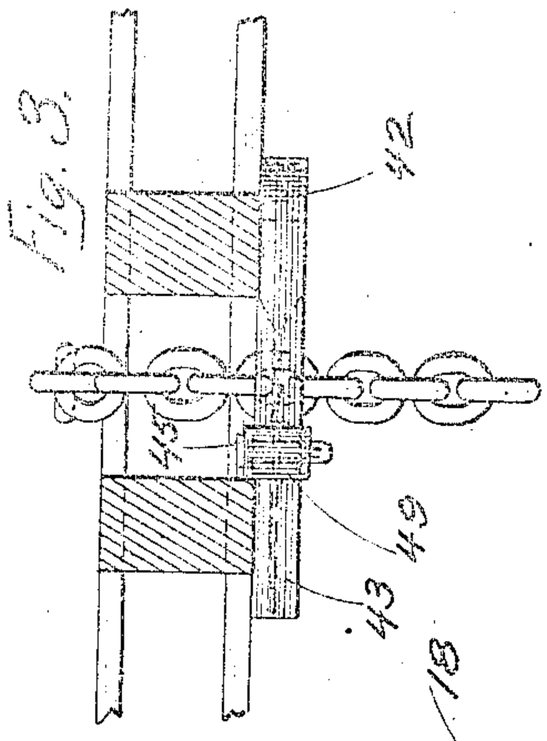
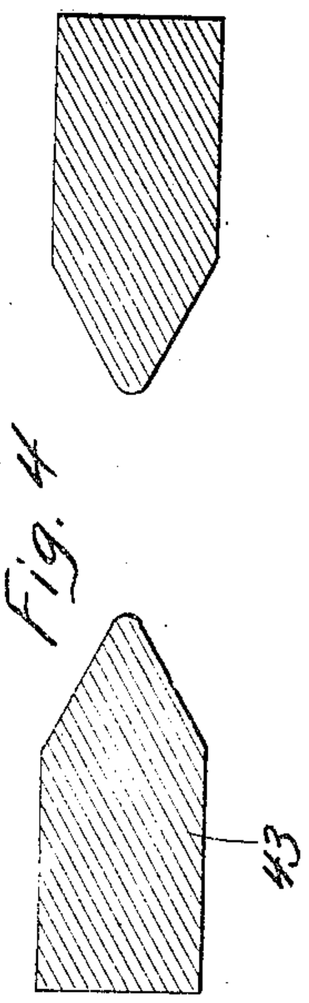


Fig. 4.



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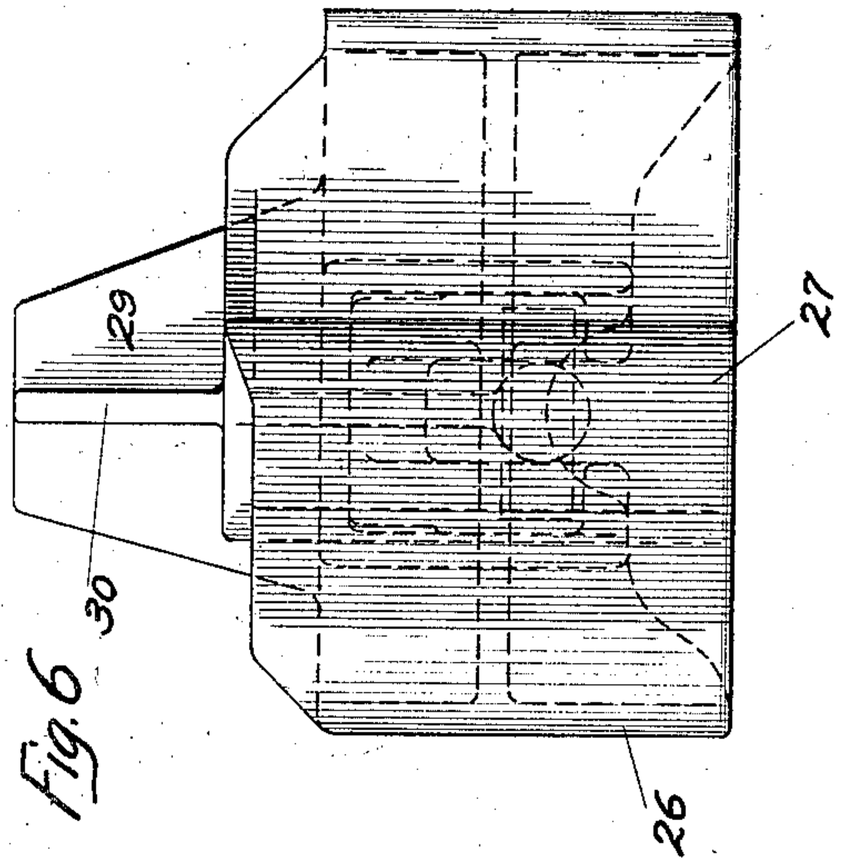

Fig. 6

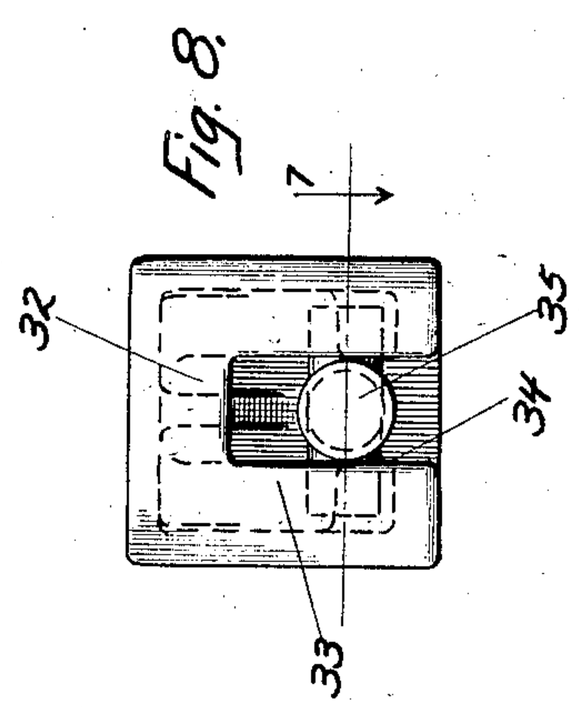

Fig. 8.

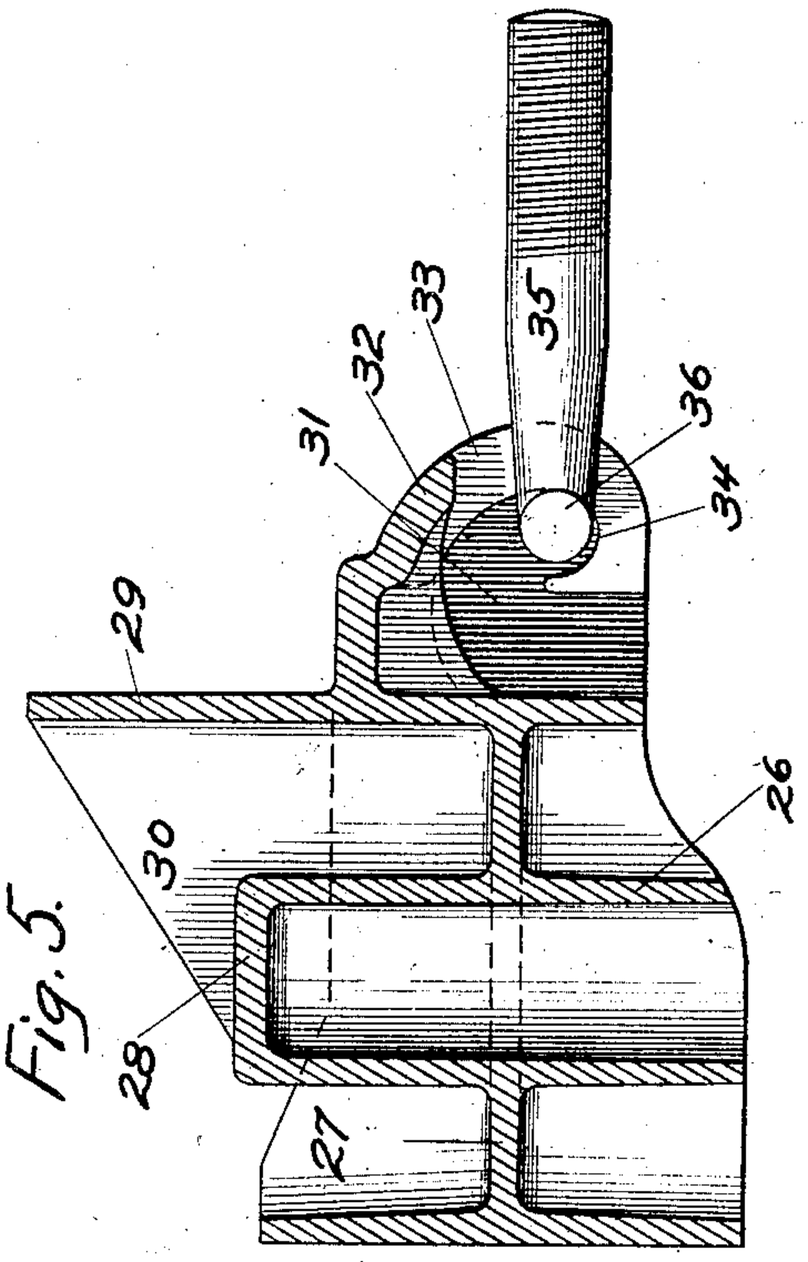

Fig. 5.

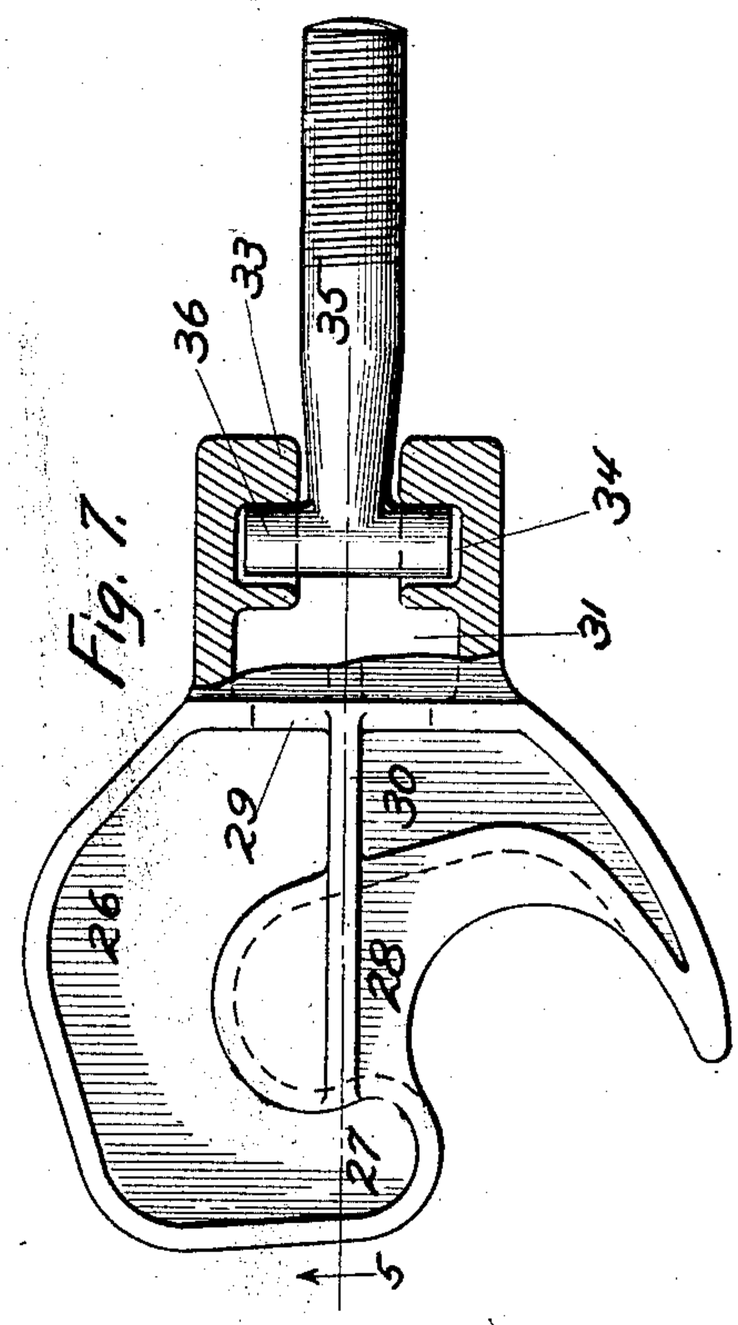

Fig. 7.

WITNESSES:

Lillian A. Tibby

Anna L. Savoie

INVENTOR.

Edward Posson

BY

Sheridan and Wilkinson

ATTORNEY.

E. POSSON.

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5 SHEETS—SHEET 4.

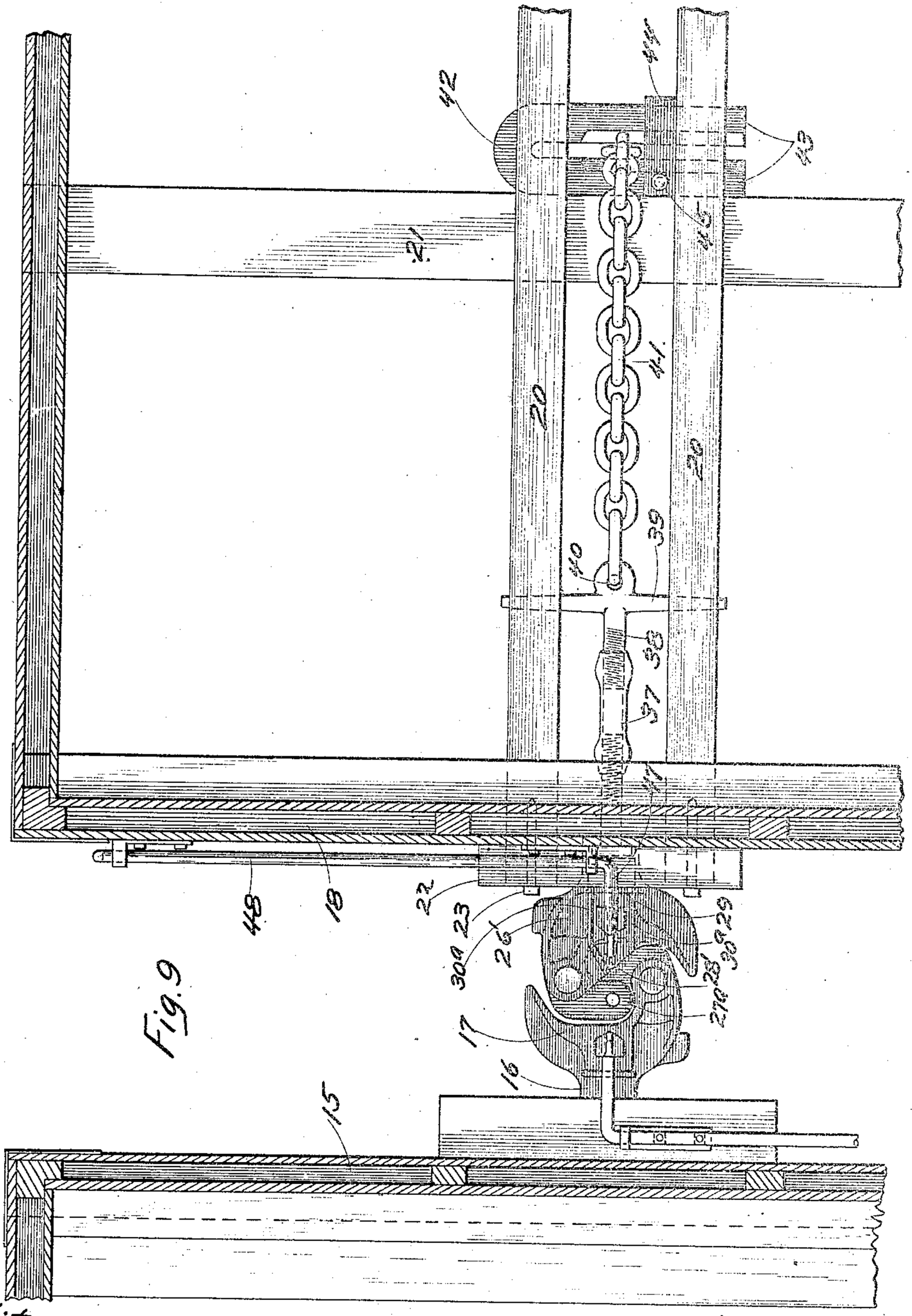

Fig. 9

Witnesses:
Lillian A. Tibby
Anna L. Savoke

Inventor:
Edward Posson
By Sheridan and Wilkinson
Attys

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E. POSSON.

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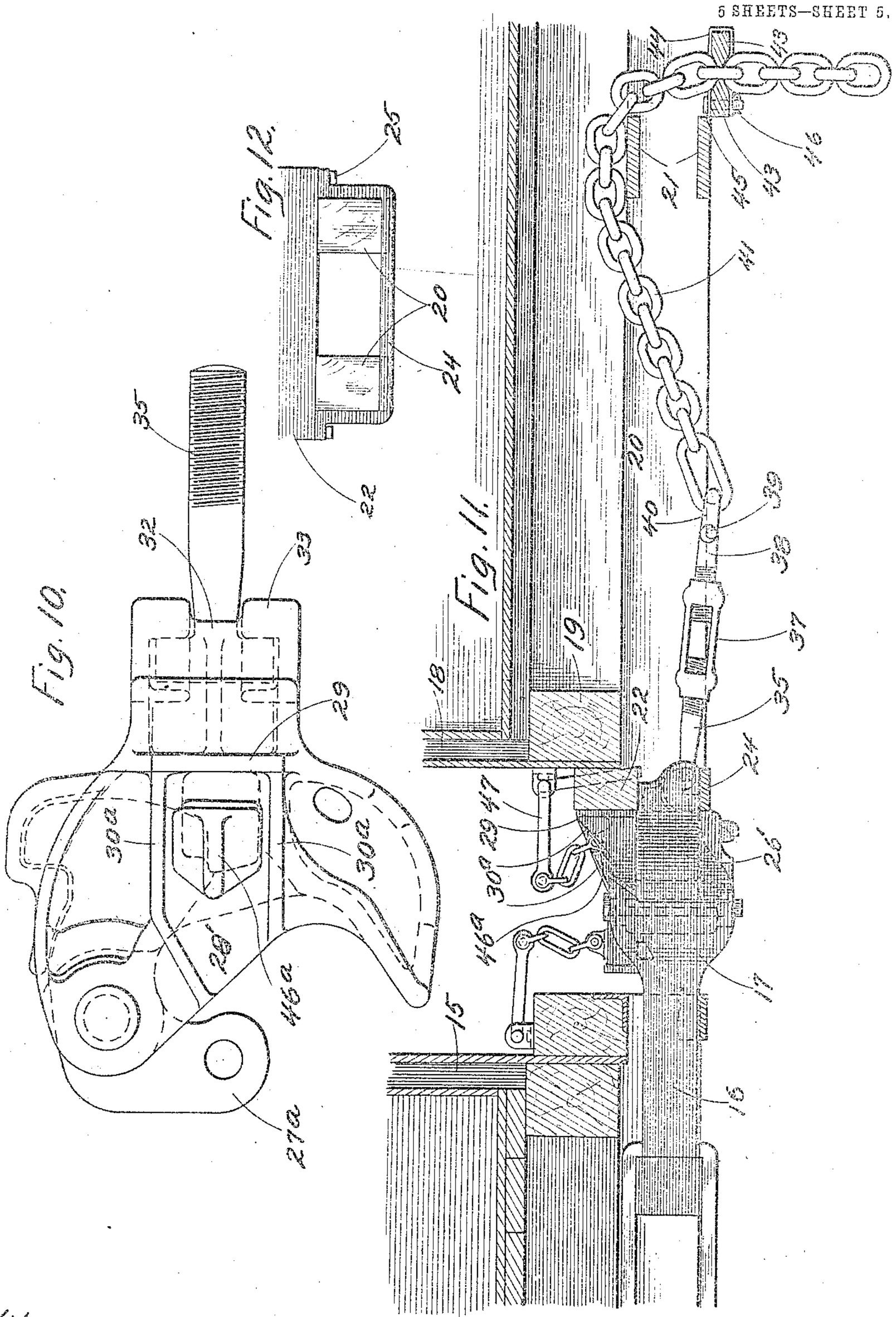
5 SHEETS—SHEET 5.



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Anna L. Savoie

Inventor:
Edward Posson
By Sheridan and Wilkinson
Attys

UNITED STATES PATENT OFFICE.

EDWARD POSSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO GRAIN BELT CAR SPECIALTY COMPANY, A CORPORATION OF MAINE.

EMERGENCY CAR-COUPLING.

940,553. Specification of Letters Patent. Patented Nov. 16, 1909.

Application filed July 3, 1908. Serial No. 441,784.

To all whom it may concern:

Be it known that I, EDWARD POSSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Emergency Car-Couplers, of which the following is a specification.

The object of my invention is to provide an improved coupling head and attaching means therefor which may be quickly applied to a railway car when the ordinary coupling head has been pulled out or broken, as by accident. This and various other objects of detail in this connection will be made apparent in the following specification and claims, when taken in connection with the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, showing my device in operative position. Fig. 2 is a plan view of the under framework of the car showing the device in place. Fig. 3 is a section on the line 3 of Fig. 2, looking in the direction of the arrow. Fig. 4 is a fragmentary section on an enlarged scale, taken on the line 4 in Fig. 2, looking in the direction of the arrow. Fig. 5 is a vertical longitudinal section of the emergency coupling head. Fig. 6 is an end elevation thereof. Fig. 7 is a top plan view thereof, partly in section. Fig. 8 is a rear elevation of the coupling head, showing the means for attaching the same. Fig. 9 is a top plan view of the under framework of the car, showing a modified form of my invention embodied therein. Fig. 10 is a top plan view of the coupling head shown in Fig. 9. Fig. 11 is a side elevation, partly in section, of the modification shown in Fig. 9. Fig. 12 is an elevation showing the draw-bar supporting strap.

In the particular embodiment of my invention which I have chosen to illustrate in the drawings, the reference numeral 15 represents the end of a freight car which is equipped with the normal Master Car Builders' type of coupling apparatus, and the reference numeral 18 represents the opposed end of a car in which the normal coupling apparatus has been removed and the emergency apparatus, which constitutes one form of my invention, has been supplied in its place. The normal draw-bar 16 and coupling head 17 on the car 15 will be readily understood by those skilled in the art to which this invention pertains. The end sill 19 of the car 18 rests on the ends of the center sill members 20 which are included between the transverse body bolster members 21. The dead block 22 is attached to the end sill 19 by means of the lag bolts 23. To the under side of the dead block 22 the draw-bar supporting strap 24 is attached by means of lag bolts 25, as shown in Fig. 12. The emergency coupling head 26 has the fixed knuckle 27 (referring now to the modifications disclosed in Figs. 1 to 8 inclusive), and the integral web 28 extends across from the top of this knuckle 27 to the main part of the coupling head 26. A vertical transverse plate 29 extends up from the coupling head and rests against the dead block 22, being reinforced by the vertical bracing flange 30. The end of the coupling head toward the car has a downwardly opening pocket or recess 31 bounded across the top by the wall 32 and having the opposed inwardly directed lips 33 on the end. These lips curve around and form sockets 34 on each side in which rest the branches 36 of the T-bolt 35. It will be noted that the head 36 of the T-bolt 35 can be slipped in and out of the recess 31, but that when the members thereof are dropped into the side pockets 34, the bolt cannot become accidentally disengaged from its connection with the coupling head 26. The T-bolt 35 and the opposed eye-bolt 38 are joined together by the turnbuckle 37. The eye 40 of the eye-bolt 38 is connected to one end of the chain 41. Horizontal laterally extending arms 39 extend out from the eye 40 of the eye-bolt 38. These arms pass under the center sill members 20, as appears in Fig. 2. The chain 41 passes over the body bolster members 21 and down back of them between the center sill members 20. The horseshoe shaped locking member 42 is provided having the two limbs 43, each with its inner face beveled, as indicated by the cross section shown in Fig. 4, the arrangement being such that one link of the chain 41 will slip flatwise between the limbs 43, the adjacent links on either side resting against them. A yoke 44 is adapted to be secured on the member 42 by means of a pin 45 and cotter pin 46.

The emergency coupler head 26 with the chain 41 and the parts connecting them may readily be carried in the caboose of a freight train or on the locomotive. Whenever an

accident causes the breaking or pulling out of the usual coupling head or draw-bar, the apparatus embodying my invention may be put in place of it. If the accident pulls the usual dead block off from the car, the dead block 22 with its depending draw-bar supporting strap 24 may be quickly applied by means of the lag bolts 23. Then the T-head 36 of the bolt 35 may be hooked into the socket 31 and the flange 29 set against the dead block 22, the coupling head 26 being supported on the draw-bar supporting strap 24 by having the projecting socket member 31 rest thereon. Then the chain 41 is passed back between the center sill members 20 over the body bolster members 21. The laterally projecting arms 39 on the eye-bolt 38 pass under the center sill members 20 and thus keep the turnbuckle 37 down where it can readily be reached and operated. The chain 41 passes thence between the center sill members 20 over the body bolster members 21, behind them and then the locking member 42 is slipped on the chain and secured by means of the yoke 44, pin 45 and cotter pin 46. Finally, the slack in the chain 41 is taken up by rotating the turnbuckle 37. Thereafter, the normal coupling head 17 on the opposite car is made to engage the fixed knuckle 27 of the emergency coupling head 26 and the horizontal top web 28 on the emergency coupling head rests upon the knuckle of the opposed coupling head. Thus, the opposed coupling head 17 assists in supporting the emergency coupling head 26.

The modification disclosed in Figs. 9, 10 and 11 is substantially the same as that already described, with the exception that the knuckle here designated as 27^a is not fixed but is pivoted in the usual manner and has a locking pin 46^a adapted to be operated by the crank 47 on the operating shaft 48. The emergency coupler shown in Figs. 9 to 11, inclusive, thus conforms strictly to the Master Car Builders' standard and satisfies the requirement that each car shall be equipped with adjustable coupling apparatus. It will be noted that in this form of my invention the web 28′ is retained so that the sound coupling head on the one car assists in supporting the emergency coupling head on the other car. Instead of the single vertical bracing flange 30 shown in Figs. 5, 6 and 7, I have substituted two parallel vertical bracing flanges 30^a shown in Figs. 9 and 10.

I claim:

1. In combination, an emergency coupling head having a socket in its end, a bolt having a head adapted to fit into said socket and be displaced therefrom, a chain, and a turnbuckle connecting the chain to the bolt.

2. In combination, an emergency coupling head having a downwardly opening socket in its end with a supporting ledge on the inside wall of the socket, a bolt having a head adapted to fit into such socket and rest upon said ledge, and a chain connected to said bolt.

3. In combination, an emergency coupling head having a downwardly opening socket in its end with lateral recesses in the socket, a T-bolt having its head adapted to fit into said recesses, and a chain connected to said bolt.

4. In combination, an emergency coupling head, a chain attached thereto and comprising an intermediate member with laterally projecting arms, and means for securing the chain to the under framework of the car.

5. In combination, an emergency coupling head, a pivoted knuckle therein, said head having an integral web extending horizontally across at the top from the main part thereof to the part which joins the knuckle, a chain attached to the coupling head, and means to secure the chain to the under framework of the car.

6. In combination, an emergency coupling head having a socket in its end, a bolt having an enlarged head adapted to fit in said socket and engage the same, and a chain having one end connected to said bolt.

7. In combination, an emergency coupling head, a chain, a turnbuckle connecting the chain to the coupling head, said turnbuckle having opposite laterally projecting arms, and means for connecting the chain to the under-framework of a car.

In testimony whereof, I have subscribed my name.

EDWARD POSSON.

Witnesses:
LILLIAN A. KIBBY,
ANNA L. SAVVIE.