

No. 867,753.

PATENTED OCT. 8, 1907.

L. RADO & D. KEREKES.
CAR COUPLING.
APPLICATION FILED JUNE 10, 1907.

Fig. 1.

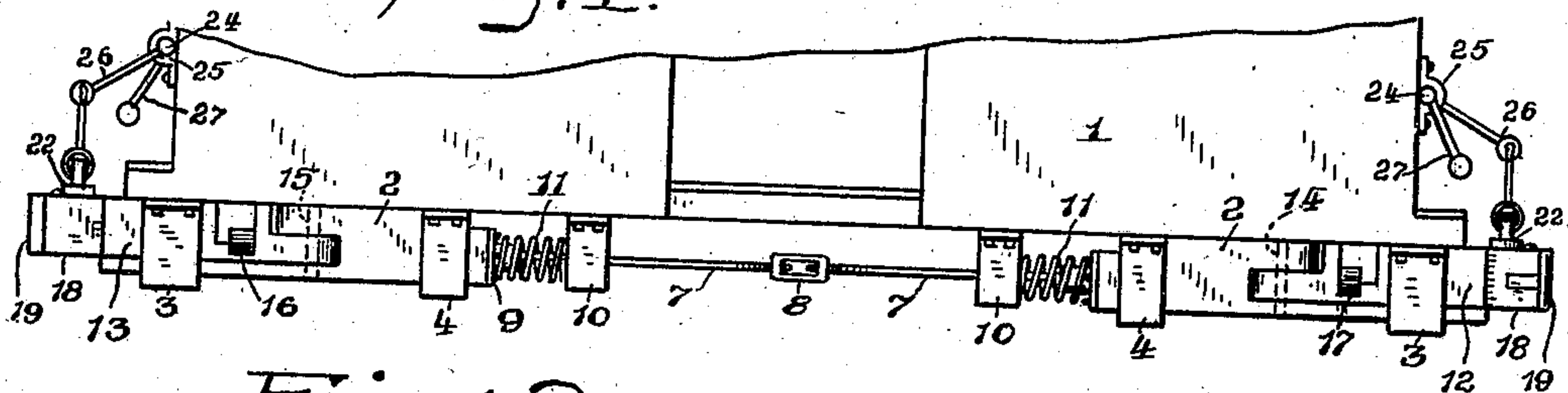


Fig. 2.

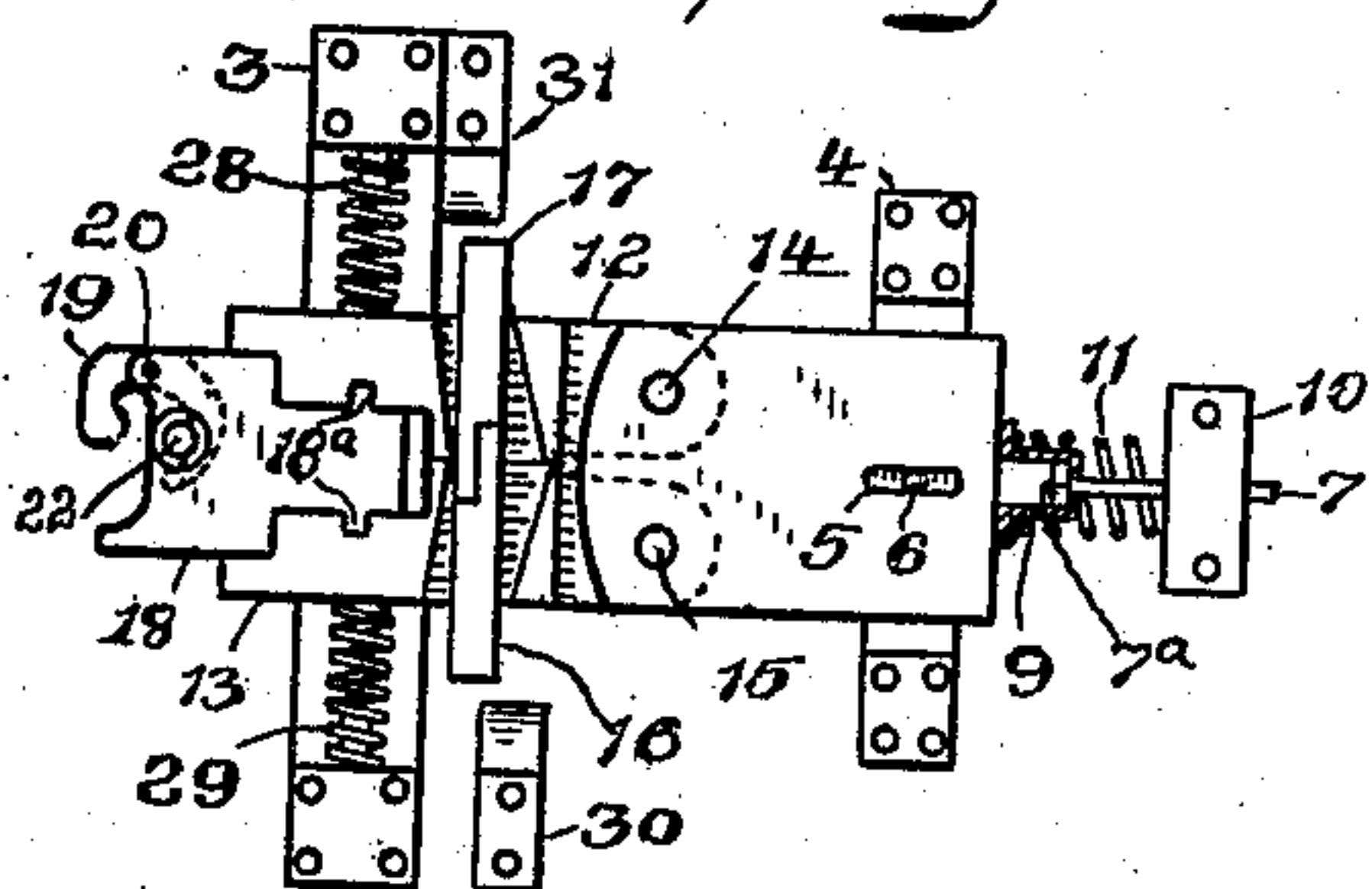


Fig. 3.

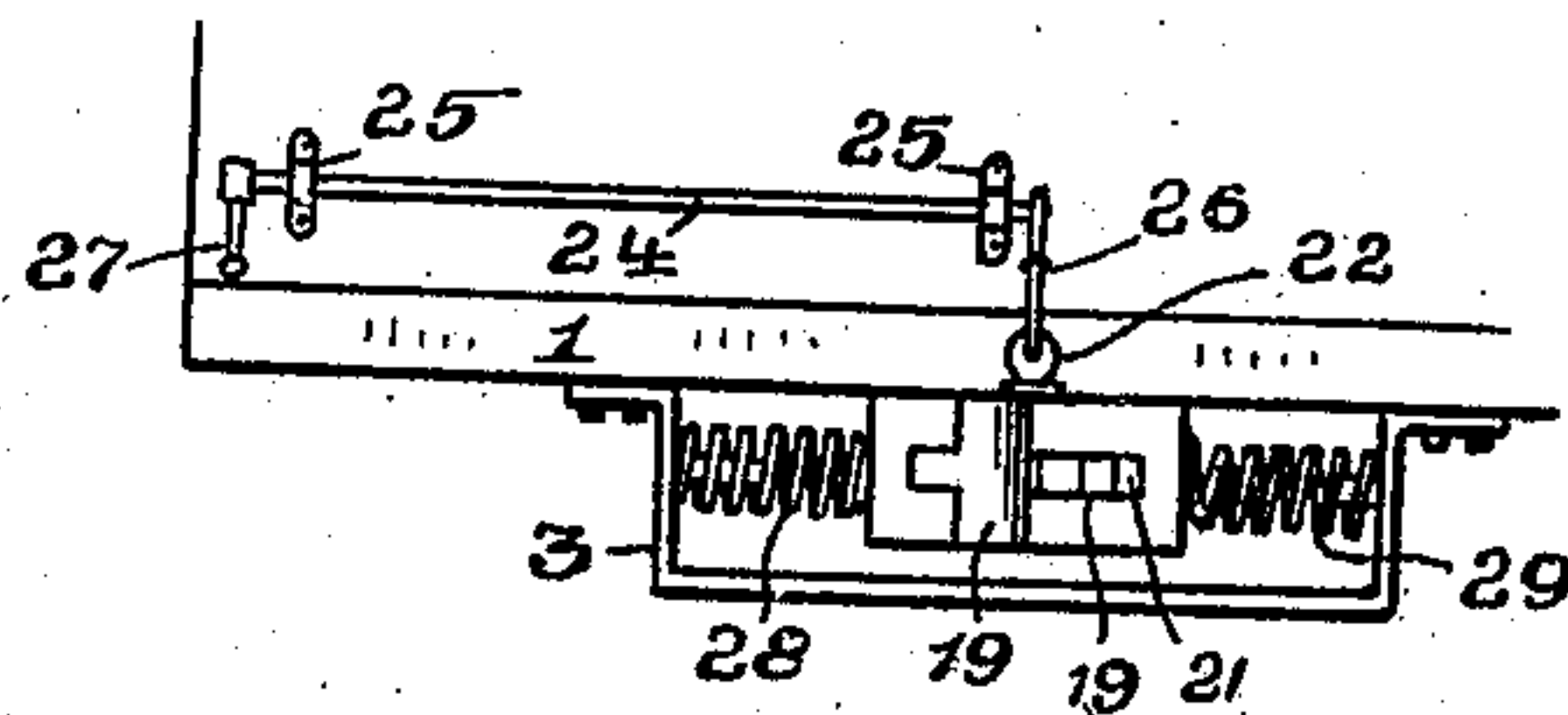


Fig. 4.

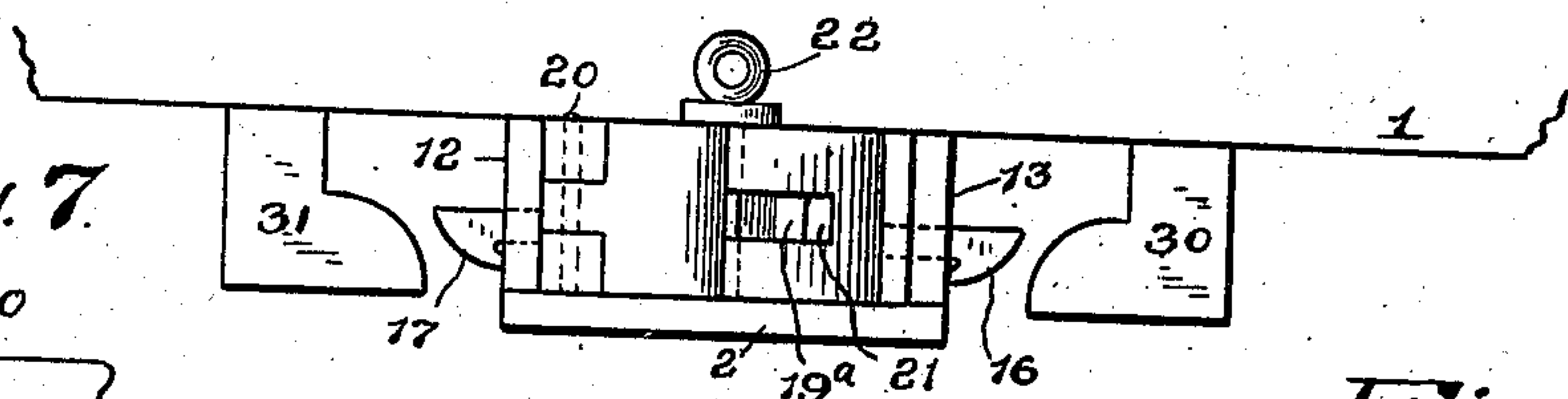


Fig. 7.

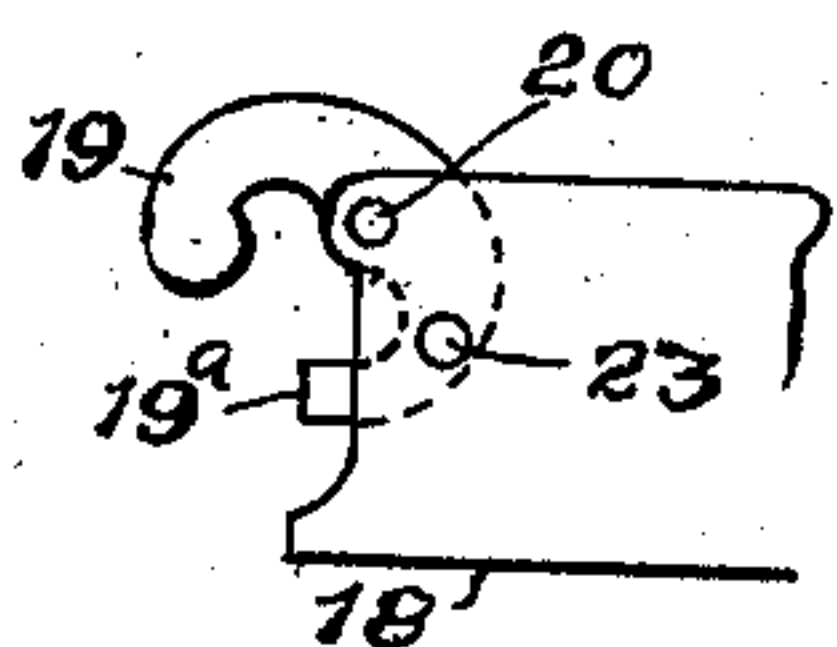


Fig. 5.

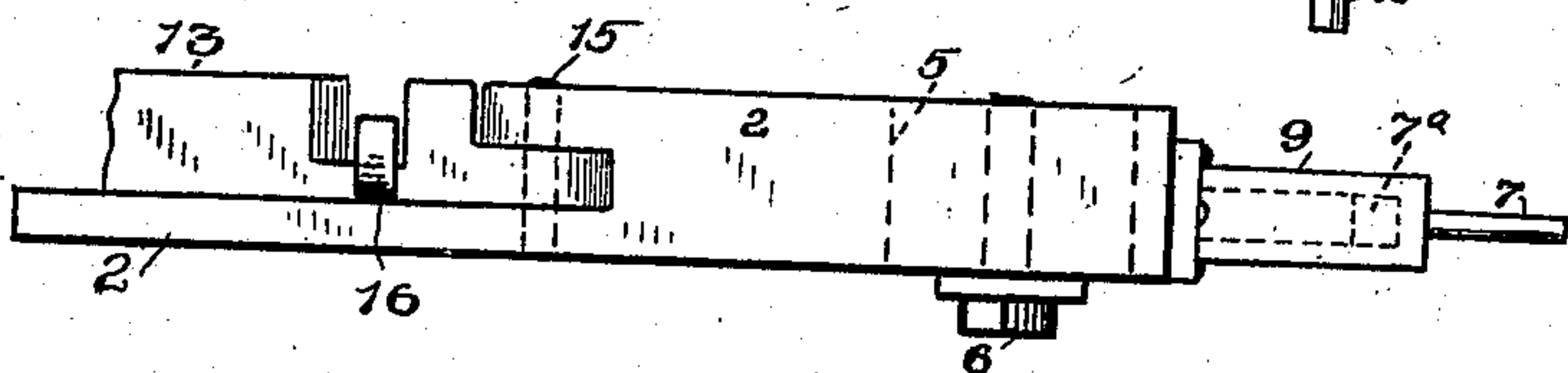


Fig. 8.

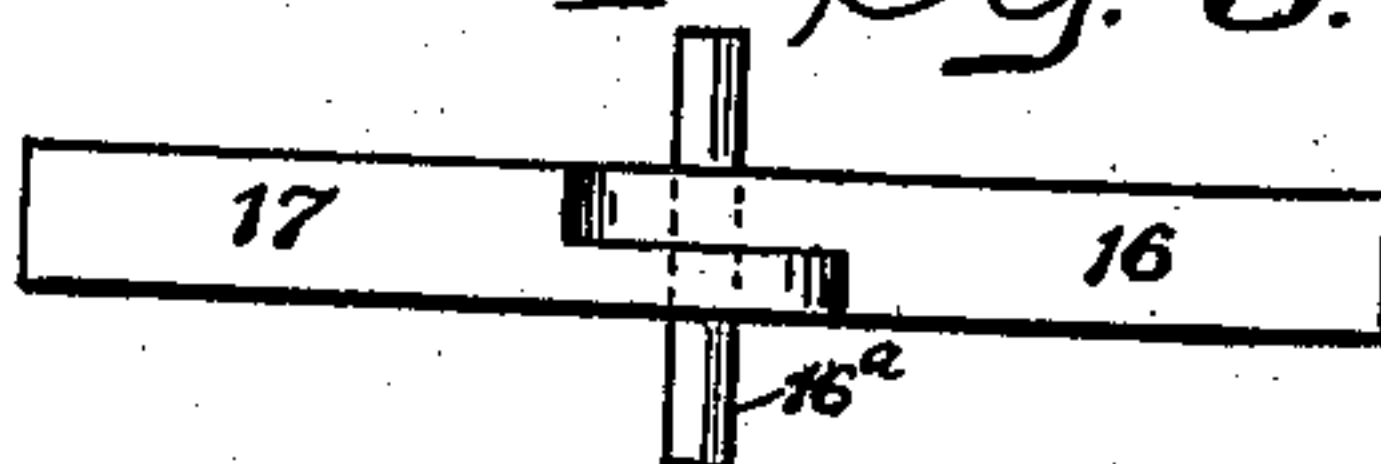
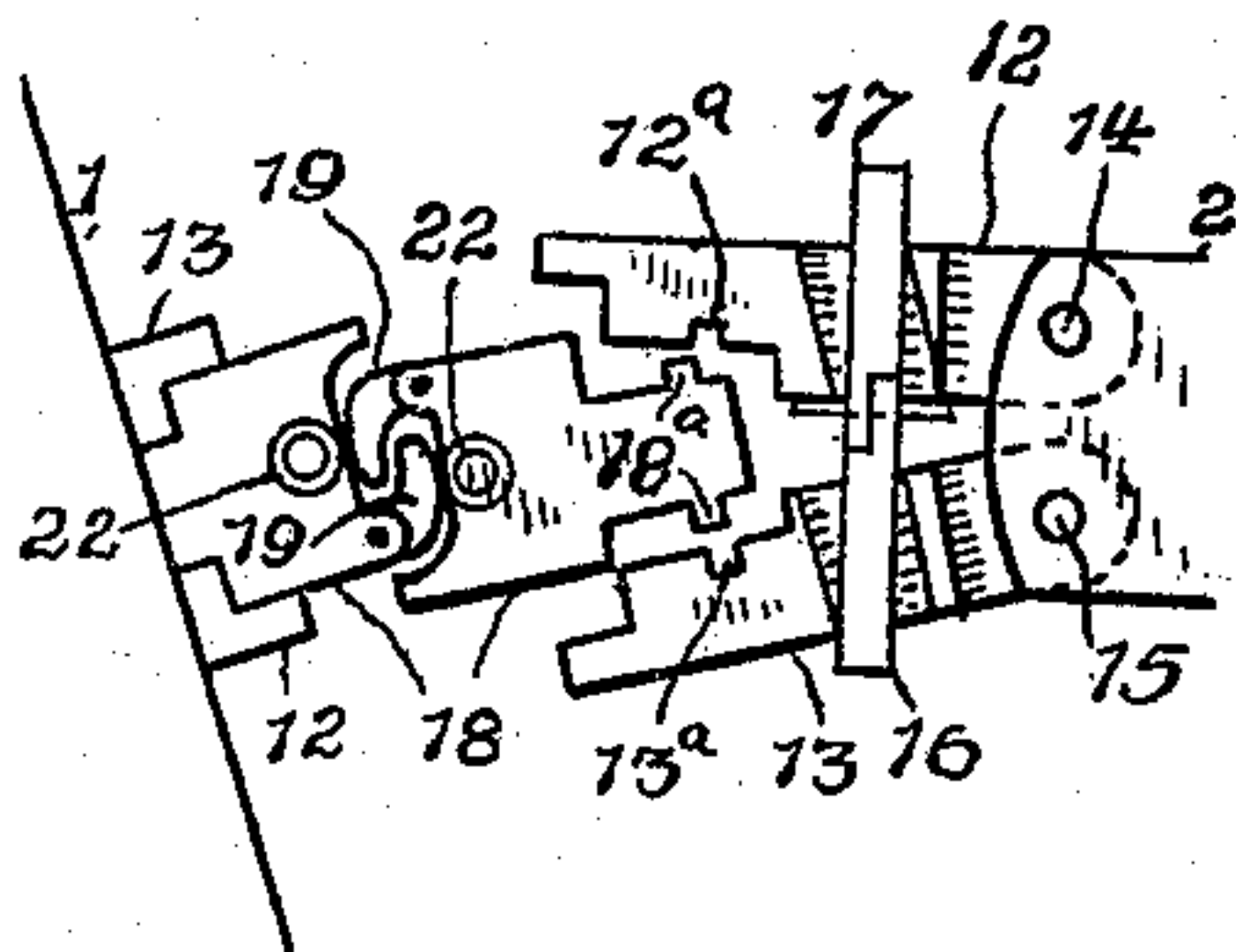


Fig. 6.



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LOUIS RADO AND DANIEL KEREEKES, OF BRANFORD, CONNECTICUT.

CAR-COUPLING.

No. 867,753.

Specification of Letters Patent.

Patented Oct. 8, 1907.

Application filed June 10, 1907. Serial No. 378,303.

To all whom it may concern:

Be it known that we, LOUIS RADO and DANIEL KEREEKES, citizens of the United States, and residents of Branford, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

Our invention relates to car couplings, and has for its object to so construct the draw head and draw bar that when a car in the train is derailed, the draw head will be automatically detached from the draw bar and the derailed car will leave the track without disturbing the rest of the train.

To enable others to understand our invention, reference is had to the accompanying drawings in which:

Figure 1—represents a broken side elevation of a car with my improved coupling attached thereto. Fig. 2—is an upper plan view of the coupling and its supporting hangers. Fig. 3—is an end view of the coupling and broken end view of a car. Fig. 4—is an enlarged end view of the coupling with its forward hanger removed and broken end view of a car. Fig. 5—is an enlarged detail broken side elevation of the draw bar of the coupling. Fig. 6—is a view showing the manner of uncoupling when a car is being derailed. Fig. 7—is an enlarged broken view of the draw head showing the coupling knuckle open. Fig. 8—is an enlarged detail upper plan view of the locking lever.

1—represents the car and, as the couplings on each end of the car are alike, the same figures of reference will indicate like parts in each. The draw bar comprises the base —2— supported on the hangers —3— and —4—, which hangers are secured to the underside of the car. The draw bar has the elongated hole —5—, embracing the pivotal pin —6— anchored in the hanger —4—. This elongated hole permits said bar to have a longitudinal movement whereby each bar is adjusted with respect to the other and the proper tension maintained between them as follows: 7—are adjusting rods connected at their center by the turnbuckle —8—. On each end of these rods is the head —7^a— Figs. 2— and —5—, located in the elongated bracket —9— secured to the rear end of each draw bar. 10—are brackets which serve both as supports for the connecting rods and also kicking posts for the buffer springs —11— interposed between the ends of the draw bars and these supports, which supports are secured to the underside of the car. The turnbuckle not only locates the position of the couplings with respect to the end of the car, but they also store up the proper tension in the buffer springs.

12— and —13— are arms of the draw bar pivotally supported on the pins —14— and —15— projecting

through the base —2— of said bar. 16— and —17— are locking levers for these arms. These levers are pivoted at their center on the pin —16^a— seen more clearly at Figs. 6— and —8—. This pin is located in semi-circular recesses—not shown—in the inner vertical faces of the arms so that said arms can be brought close together. When the draw head —18— is locked within the arms of the draw bar —2—, the hook or pawl heads of the locking levers will engage the outer vertical sides of the arms and prevent their being accidentally opened. The draw head —18— has the laterally projecting lugs —18^a— Fig. 6— adapted to enter the recesses —12^a— and —13^a— of the arms to form an anchorage against a direct pull on the draw head.

19— is the usual coupling knuckle pivotally connected to the draw head by the pin —20—.

19^a— is a tail piece integral with the knuckle, which tail piece operates in the slot —21— Fig. 4—, of the draw head. 22— is the coupling pin adapted to enter the hole —23— Fig. 7—, of the draw head and operates to lock the knuckle when closed as follows: Referring to Figs. 1— and —3—, 24— is a rod journaled in the brackets —25— on the end of the car. 26— is an arm on the inner end of this rod connecting with the head of the coupling pin, and —27— is a handle for operating the mechanism for raising the pin. To couple the car, the handle —27— is raised to lift the coupling pin far enough so that, when the knuckle —19— is opened, Fig. 7— the tail piece of the knuckle will be thrown around under the pin which will rest thereon. This movement of the knuckle will cause the end of the tail piece to project beyond the draw head as shown. When, therefore, the coupling from an incoming car strikes this projecting tail piece, it will throw the knuckle around to engage the knuckle of such incoming car. When the retreating tail piece of the knuckle has passed from under the coupling pin, said pin will drop by gravity in front of said tail piece and firmly lock the knuckle in its closed position.

28— and —29— are springs interposed between the sides of the hanger —3— and the sides of the arms —12— and —13— to keep the draw bar in its normal central position against the ordinary side swing or movement of the car. When, however, a car in the train jumps the track, the draw bar of the car or cars to which the derailed car is coupled, will be swung around on the pivotal pin —6— by said derailed car until the curved head of the locking lever, towards such derailed car, contacts with the curved face of one of the stationary projections —30— or —31—, which contact will lift said locking lever and release the pivotally supporting arm with which it is engaged. This will allow said arm to open and release the draw head

—Fig. 6— and allow said draw head to be carried away by the derailed car without disturbing the rest of the cars in the train.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:

1. The combination, with a car, of a coupling comprising a draw bar, hangers beneath the car on which said draw bar is adapted to have both a longitudinal and a lateral movement, a detachable draw head, laterally movable and pivotally supported arms of the draw bar engaging the draw head, means on said draw head and arms whereby said draw head is anchored in said arms, pivotally supported locking levers for said arms, lateral springs adapted to maintain the normal central position of the draw bar, means on the under side of the car to release the locking levers, for the purpose set forth.
2. The combination, with a car, of couplings at each end thereof, said couplings constructed as follows: a draw bar comprising a base, laterally movable arms pivoted thereto, a draw head anchored between said arms, locking levers for said arms and pivotally supported thereon, front and rear hangers projecting beneath the car to support the base of the draw bar, a pivotal support for the rear end of the draw bar, side springs at the front end to maintain the normal central position of the coupling, adjusting rods connecting the couplings at each end of the car, means to permit of a longitudinal movement of said couplings, means to effect such move-

ment, buffer springs at each inner end of the couplings, kicking posts for said springs, means connected with the car adapted to be engaged by the arm locking levers and release the draw head of the coupling, for the purpose set forth.

3. In a car coupling of the character described, comprising a laterally and longitudinally operating draw bar, a detachable draw head, pivotally supported arms and means for anchoring said draw head therein, locking levers for said arms, means for releasing said levers, a pivotally supported knuckle for the draw head having a tail piece adapted to project beyond the draw head when said knuckle is opened, a coupling pin adapted to rest on said tail piece when said knuckle is in open position and to drop by gravity in front of said tail piece and thus lock the knuckle when closed, for the purpose set forth.

4. In a car coupling, a draw bar, a draw head, locking arms pivotally mounted on said draw bar and adapted to normally hold the draw head to the draw bar, detachable locking levers for said arms and pivotally supported at their center and such pivotal center located between the meeting faces of said locking arms, for the purpose set forth.

Signed at Branford in the county of New Haven and State of Connecticut this 13th day of April A. D. 1907.

LOUIS RADO.

DANIEL KEREKES.

Witnesses:

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GEO. E. MARSH.