(No Model.)

A. WEAVER.

CAR COUPLING.

No. 532,615. Patented Jan. 15, 1895.

Fig. 1.

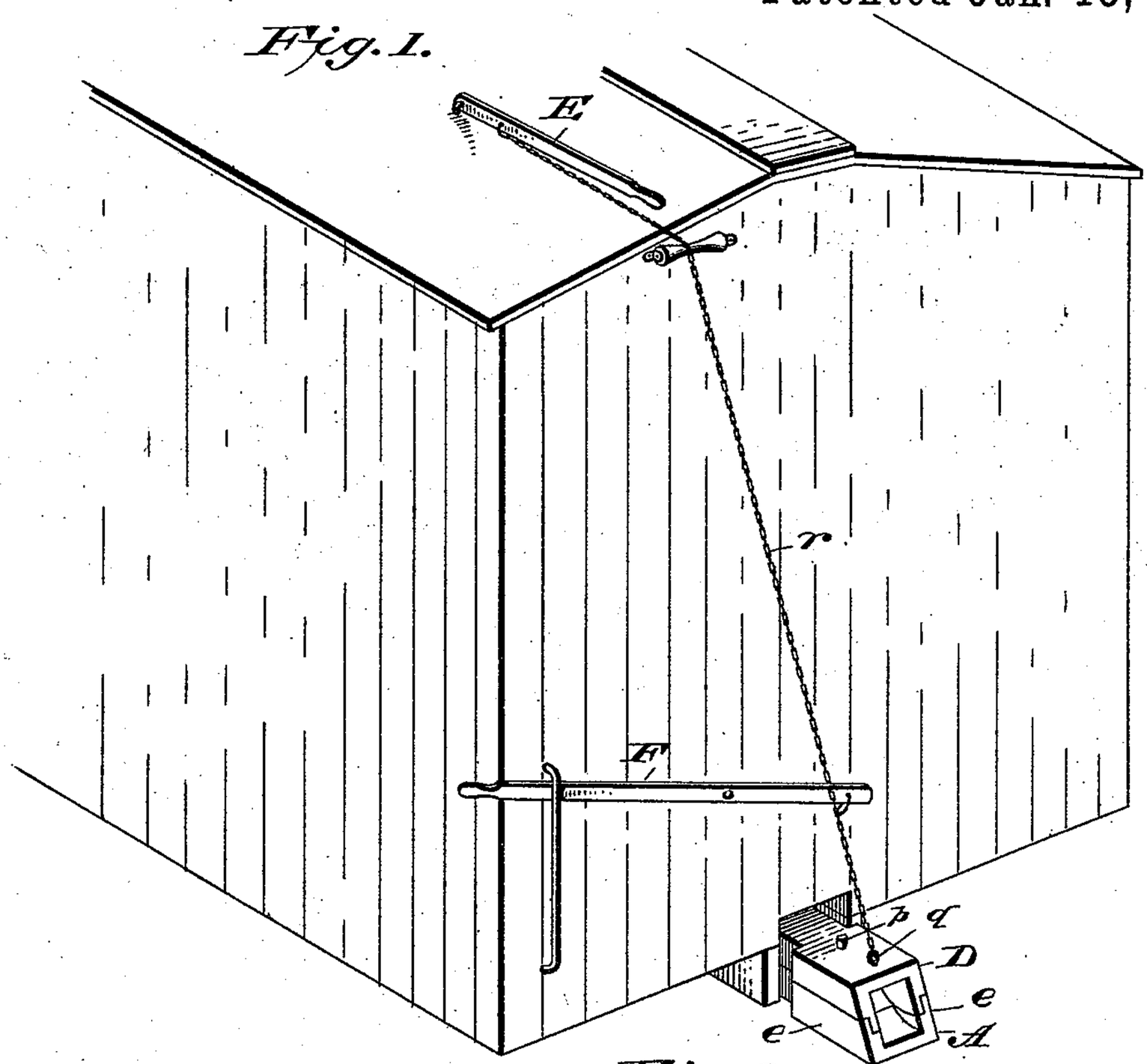


Fig. 2.

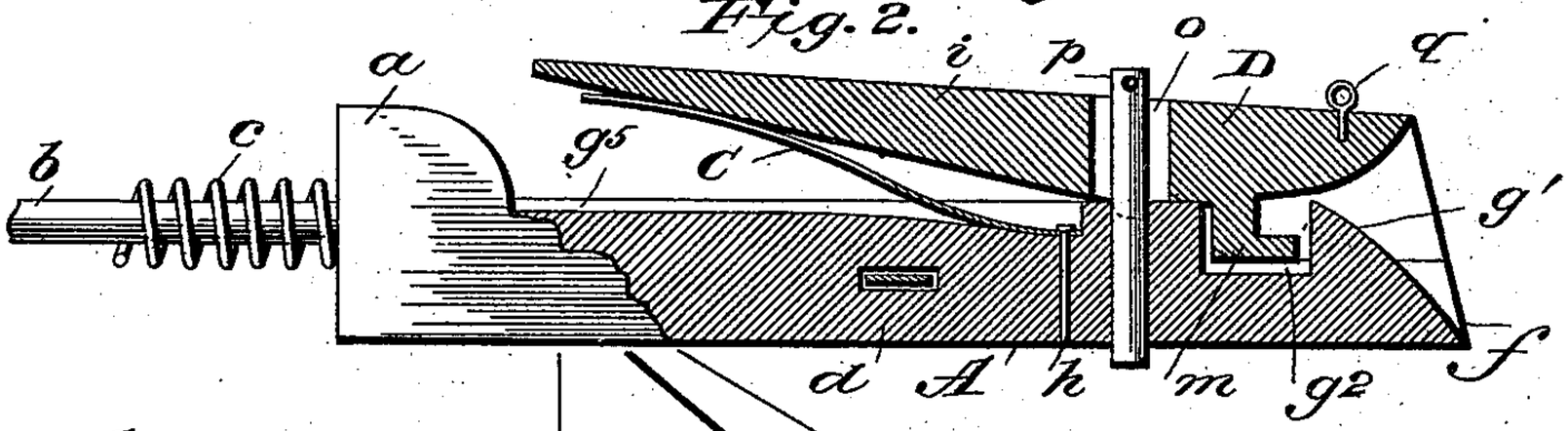
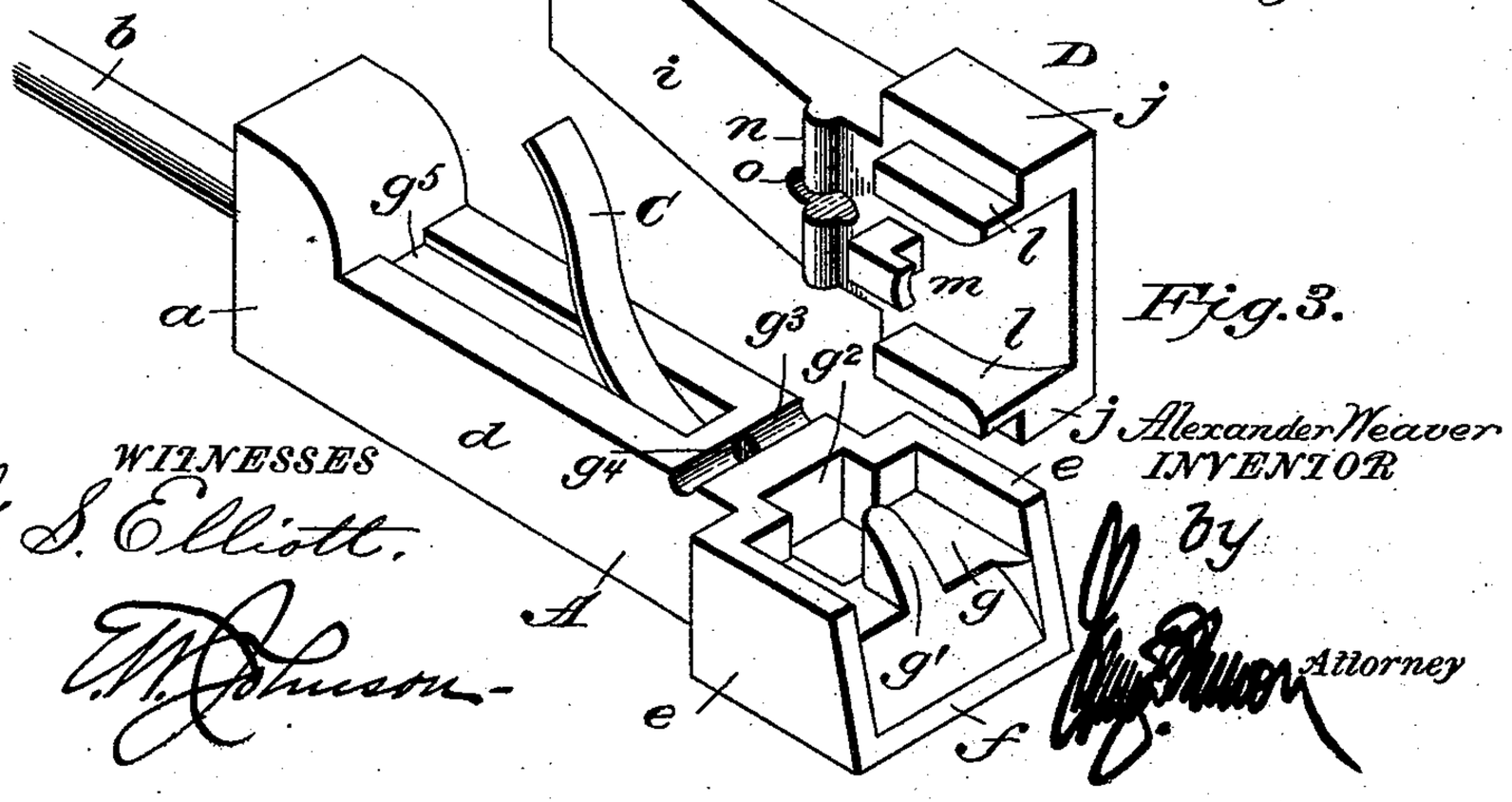


Fig. 3.



WITNESSES

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by

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UNITED STATES PATENT OFFICE.

ALEXANDER WEAVER, OF WINONA, MISSOURI, ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-HALF TO JOHN F. CHURCH AND JACOB KISSEL, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 532,615, dated January 15, 1895.

Application filed September 6, 1894. Serial No. 522,288. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER WEAVER, a citizen of the United States of America, residing at Winona, in the county of Shannon and State of Missouri, have invented certain new and 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 in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to car couplings, and consists in the improved construction hereinafter described and set forth whereby a simple and efficient coupling is provided that will readily enable the link to be properly engaged at all times, and insures its release or detachment in an easy and convenient manner.

In the accompanying drawings forming part of this specification, Figure 1 is a perspective view of the end portion of the body of a car having my improved coupling applied thereto. Fig. 2 is a central longitudinal sectional view of my improved coupling, and Fig. 3 is a detail perspective view of my improved coupling, showing the sections detached.

The improved coupling is secured at the under side of the end of the car as shown in Fig. 1.

The coupling proper consists primarily of a casting forming a body A and upper casting D. The body is of the general form shown most clearly in Figs. 2 and 3, and comprises in part the rear enlarged portion *a*, having the horizontal integral stem *b* to play through a transverse guide bar on the under side of the car and give to the coupling a yielding movement by means of a spiral spring *c* embracing said stem and interposed between portion *a* and said guide bar. The said body further comprises the central longitudinal reduced portion *d* which terminates at the front in laterally-extending portions *e e* and lower portion *f* forming the lower part of the coupling chamber. By reference to Figs 2 and 3 it will be seen that the front face of the portion *f* inclines upwardly and rearwardly and is horizontal at its top *g*. Centrally on said top face is a vertical lug *g'* the forward face of which is inclined to register with that of the portion *f* while its rear face is abruptly vertical. The body has a recess g^2 in the rear of said lug to provide for increased room in the vicinity of the same. On its upper side and to the rear of the recess g^2 the body is provided with a transverse semi-circular groove g^3 centrally intersected by a vertical perforation g^4 in the body. The latter is provided in its top face with a central longitudinal channel g^5 extending from the portion *a* and terminating a short distance from the groove g^3. As will be seen in Fig. 2 the bottom of the channel adjacent to the forward terminus of the same is inclined to make the channel of gradually increased depth thereat, so that the forward end of a longitudinal leaf spring C may bear therein and be secured by a bolt *h* out of the way of the other parts. The rear part of the said spring is curved upward to bear against the upper casting D, to be presently described, so that when the rear of said casting is depressed the said spring will be forced down to lie snugly within the channel.

The upper casting D, previously alluded to, comprises a rear tapered longitudinal portion *i* and forward lateral portion having the laterally projecting sides *j j* and top, to form the upper part of the coupling chamber. The sides *j j* each have a depending flange *l* located a short distance from its outer side to lie within the wall *e* beneath the bottom edge of the side—itself bearing on the inner edge of the said wall *e*—this arrangement enabling the parts to be kept properly in position but preventing side displacement or play. Integrally depending from the central portion of the under face of the forward portion is a hook *m* which when the upper casting is in position extends down within the space g^2 in the forward part of the lower casting. Said upper casting is also provided on its under side, a short distance in the rear of the hook *m*, with a transverse horizontal semi-circular rib *n* adapted to bear in the groove g^3 and enable the upper casting to rock longitudinally on the lower member of the coupling. A

short longitudinally elongated slot *o* vertically intersects the rib *n* and registers with the perforation g^4 below, so that a vertical retaining pin *p* can be loosely seated in both perforation and slot, and while retaining the upper casting in position will permit the latter to rock as before mentioned. The rear tapered portion *i* bears upon the upper free bent end of the spring C.

The casting D is provided on its upper side adjacent to the front with a loop *q*, to which is attached the lower end of a chain or cable *r* connected with a pivoted lever E located on the top of the car. A horizontally pivoted lever F located on the end of the car is also connected with the chain or cable to enable it to be operated from the side of the car. The movement of either one of the levers causes the casting to be longitudinally rocked upon its bearing raising its front and depressing the spring and enables the link of the other coupling to enter the coupling chamber, ride up the front inclined face of the lug *g'* and lie over the same so as to be lowered with the hook *m* when the chain *r* is released and the spring C depresses the front part of the casting D. When the latter is subsequently raised the hook *m* also lifts the link out of engagement with the lug *g'* and permits said link to be readily withdrawn.

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

1. The combination in a car coupling, of the lower member provided at its forward end with a lug and on its upper face in rear of said lug with a transverse channel centrally intersected by a vertical perforation, of an upper casting having a depending hook adapted to operate in the rear of said lug and provided on its under face in the rear of said hook with a transverse rib to bear in said channel, said rib being centrally intersected by a longitudinally-extended vertical slot, and a retaining pin passing through said slot and engaging the perforation in the lower portion, substantially as set forth.

2. The combination of the upper and lower members respectively provided with a depending hook and engaging lug in advance of the same, the said lower member being provided with a laterally extended side wall *e* and the upper member being provided with extended sides *j j* having depending flanges *l* to bear within said wall *e*, substantially as set forth.

3. The combination in a car coupling, of the lower member comprising rear enlarged portion *a* having the rearwardly extending stem *b* to be embraced by the spring, a central body portion terminating at its front in the lateral enlarged walls *e e*, lug *g'* located between the same and having front inclined face, the front portion of the lower member being recessed immediately behind said lug, together with the upper member having the rear tapered portion, a forward laterally enlarged portion provided with depending flanges *l* and intermediate depending hook *m*, substantially as set forth.

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

his
ALEX. × WEAVER.
mark

Witnesses:
J. N. SIMMONS,
J. FERGUSON.