

(No Model.)

B. B. MOSS.
CAR COUPLING.

No. 534,168.

Patented Feb. 12, 1895.

Fig. 1.

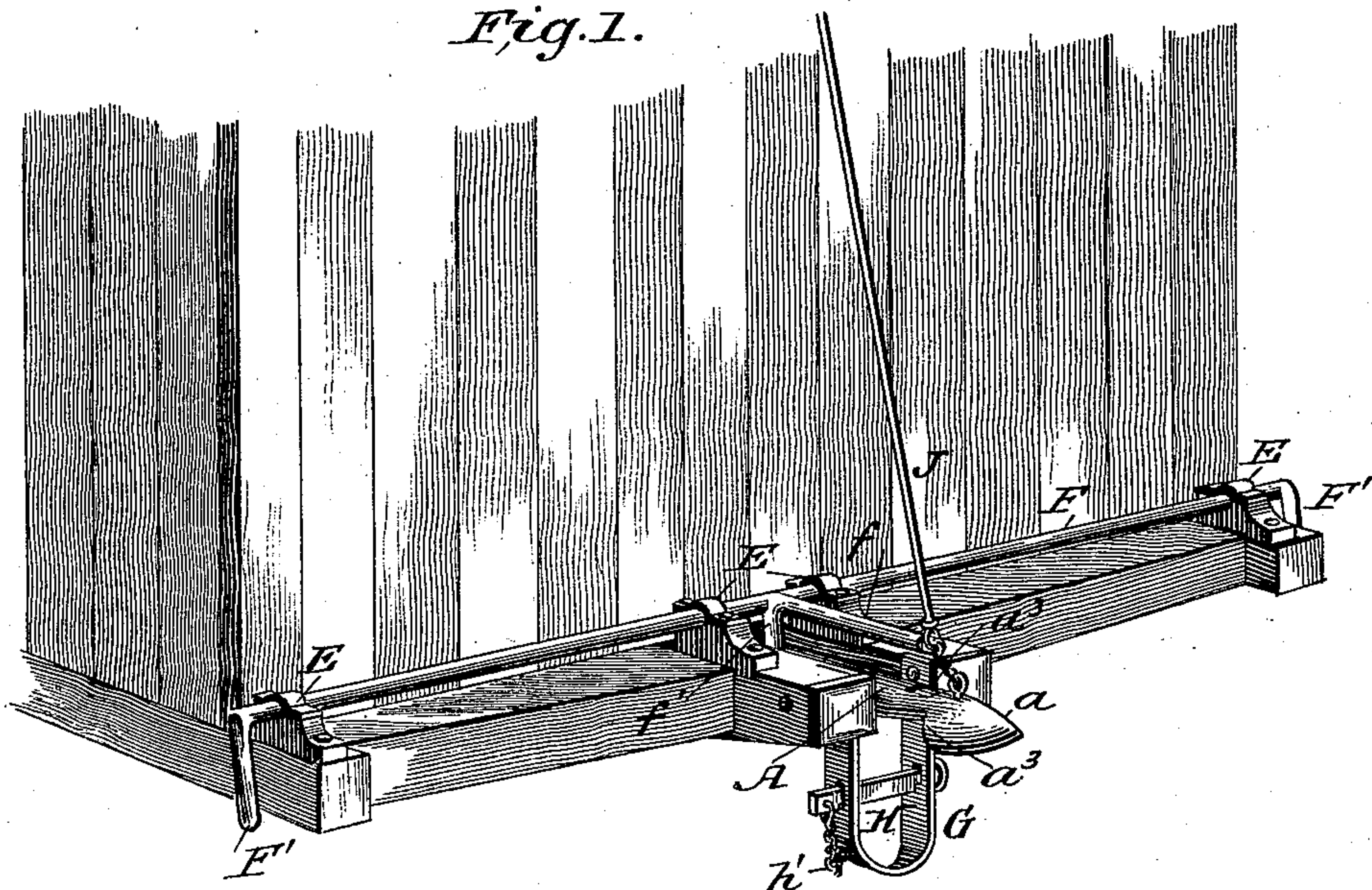


Fig. 4.



Fig. 2.

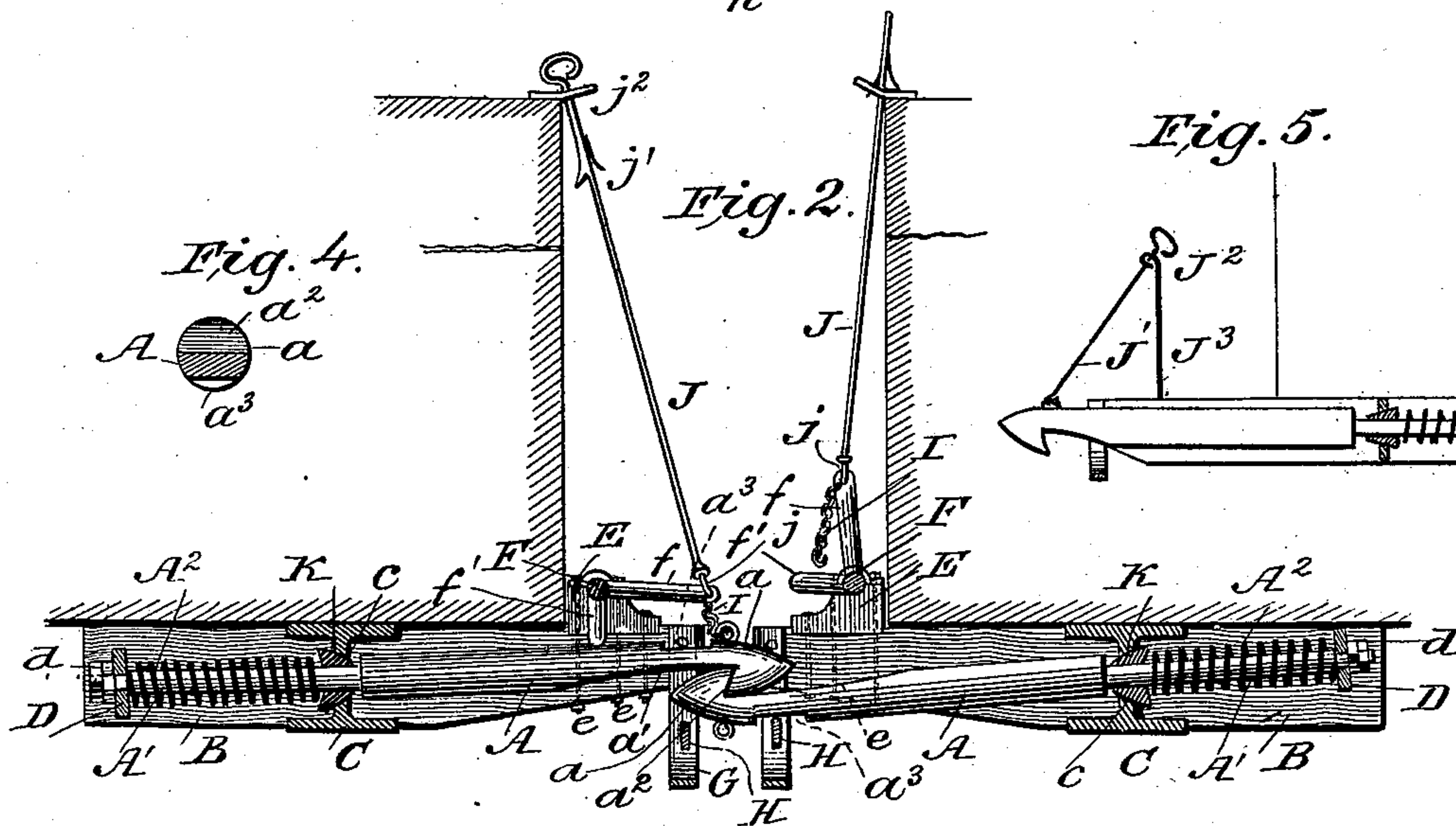


Fig. 5.

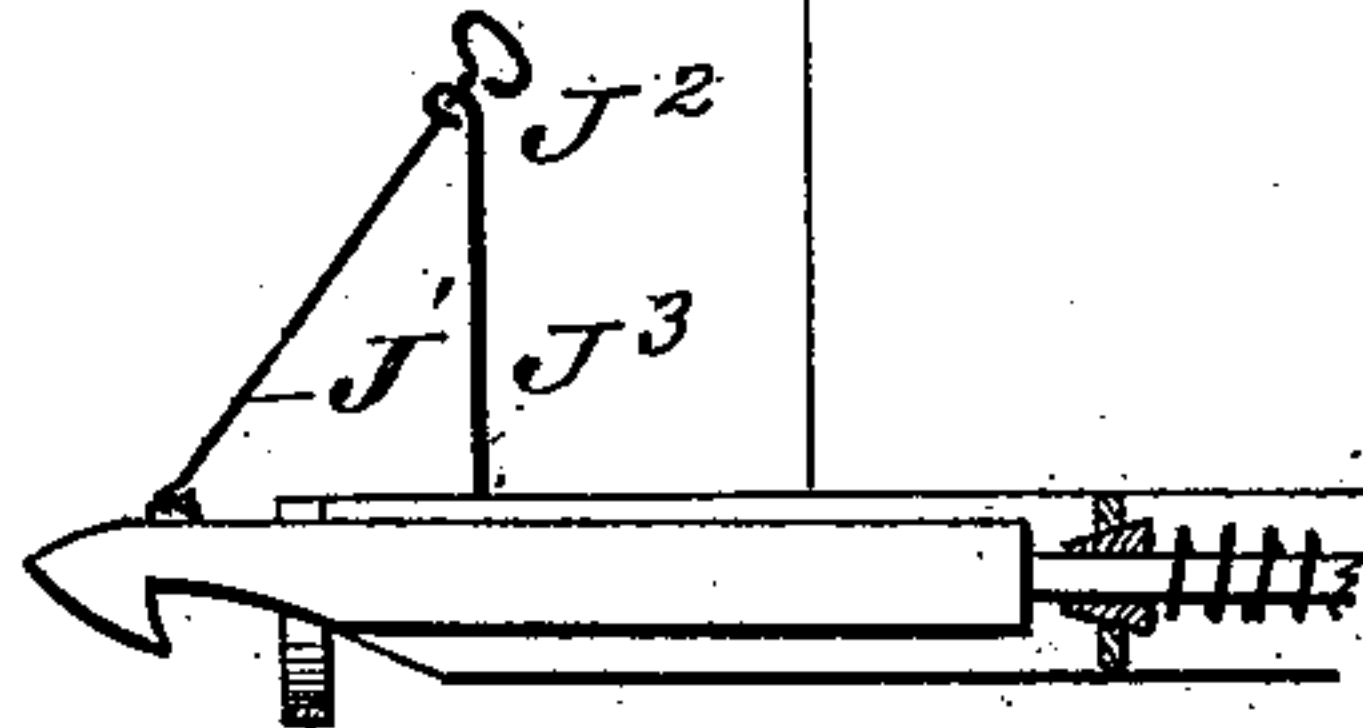
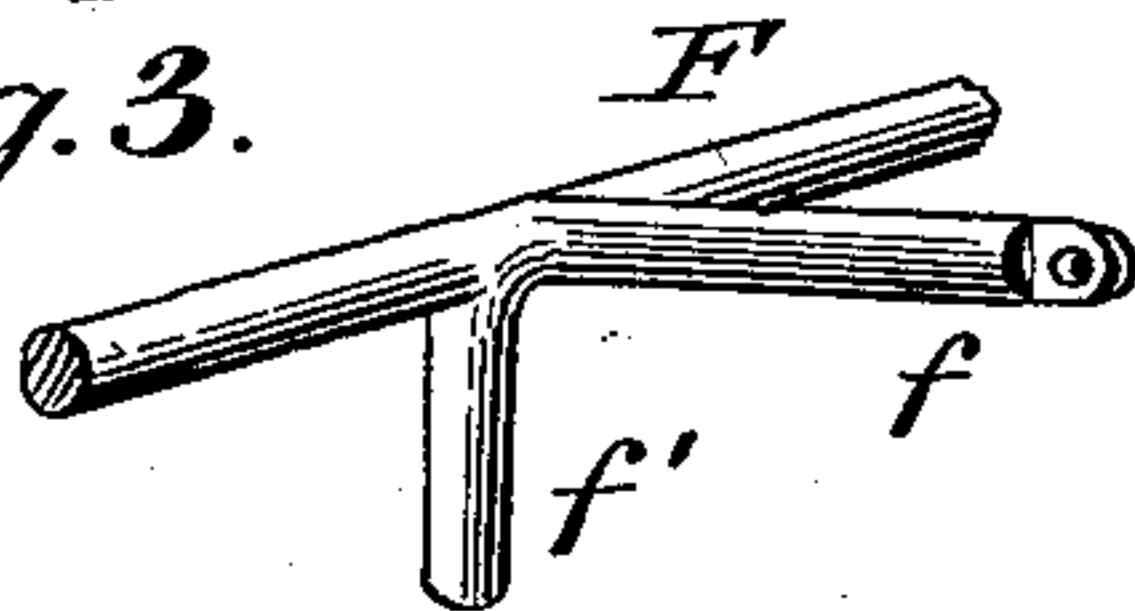
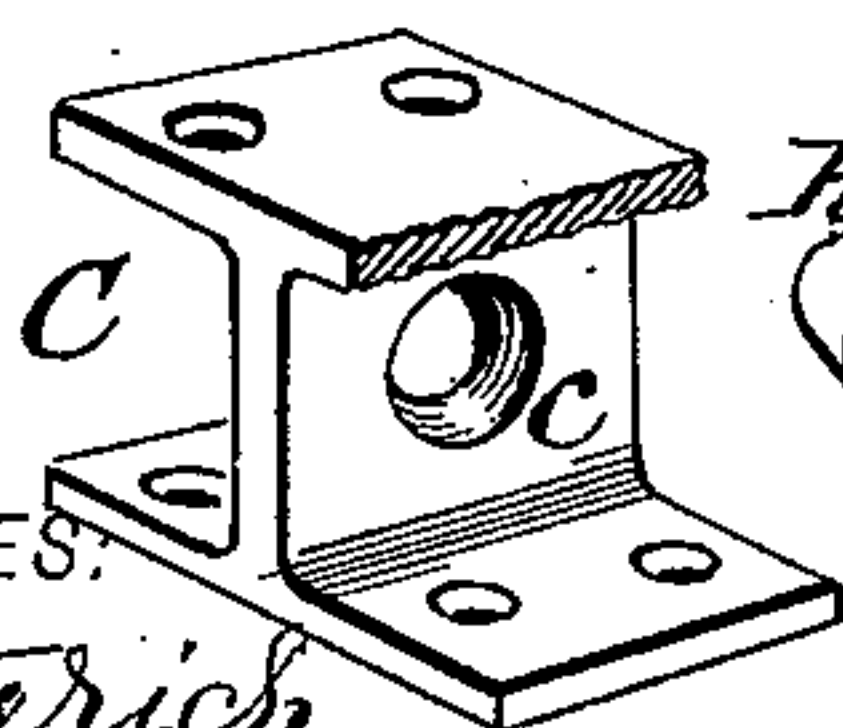


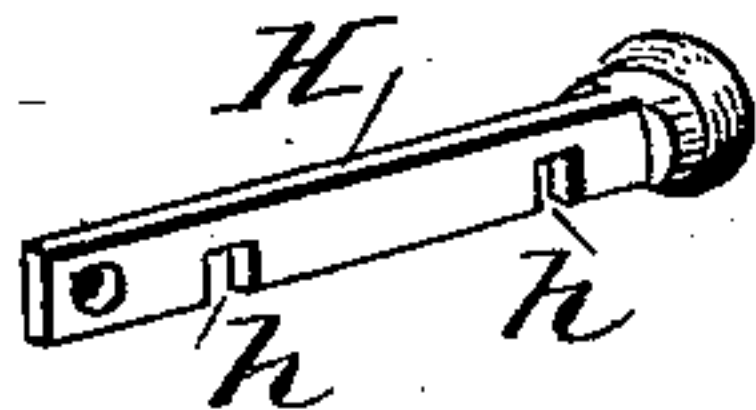
Fig. 3.



WITNESSES:

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 534,168, dated February 12, 1895.

Application filed October 30, 1894. Serial No. 527,423. (No model.)

To all whom it may concern:

Be it known that I, BERTIE B. MOSS, residing at Pekin, in the county of Washington and State of Indiana, have invented a new and Improved Car-Coupler, of which the following is a specification.

My invention relates to that class of car couplers in which the drawheads are arranged to couple automatically and to be uncoupled from the top or sides of the car, and it primarily has for its object to provide a coupler of this character of a simple and economical construction, which can be easily manipulated and which will be very effective in its operation.

My invention also has for its object to provide a draw bar capable of adjustment in its bearings or draft timbers, whereby its draw or coupling head can be quickly set to couple with an opposing draw head held at a different height.

Furthermore it has for its object to provide a simple uncoupling mechanism, which can be set to engage the draw head when in a coupled position, lock the same and hold it from becoming accidentally uncoupled.

With other minor objects in view which hereinafter will be referred to, the invention consists in such novel features of construction and peculiar combination of parts, such as will be first described in detail and then be pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view showing a portion of a box car equipped with my improved coupling devices. Fig. 2 is a longitudinal section partly in elevation of two draw heads constructed in accordance with my invention, coupled together. Fig. 3 is a view illustrating several of the parts in detail. Fig. 4 is a transverse section, taken through the neck or coupling end of one of the draw bars, and Fig. 5 is a view of a modified arrangement of the invention, hereinafter referred to.

In the practical construction, my invention embodies a draw bar A, which is held between the draft timbers B, B, for a vertical and rotary motion, whereby its draw head will adjust itself when coupling cars of different heights, and whereby the draw bar can be rotated to set or bring its coupling head into a

proper position for coupling with an opposing head. The draw bar consists of a round bar of a required thickness to give it the desired strength, the front end of which is made conical as at a and cut away as at a' , which portion a' terminates at the coupling lip or barb a^2 , as shown, such portion a' also forming a guide whereby one draw head will the more readily and evenly travel up on the opposing draw head.

The rear or shank end of A' of the draw bar fits in and is rotatable in a rocking bearing member K, conical-like in shape which fits in a tapering or cone aperture c in the draft iron or bearing member C, in practice rigidly and strongly secured to the draft timbers B, B, and such rear end A' has the usual buffer spring A³ around it, and the rear end of which abuts a plate D, fixedly held on the threaded end of the draw bar by the nuts d, d .

The front end of the draw bar is movable in a yoke member G, the ends of which are secured to the draft timbers, and which has its side portions formed with elongated apertures in which are adapted to fit cross key or rest bars H, held locked therein when set, by the chain and hook portion h , as most clearly shown in Fig. 1.

The draw head has its upper face provided with a recess or depression a^3 , and an eye or hook, with which is adapted to engage a flexible (chain) connection I, which joins it with the uncoupling devices, the construction of which is most clearly illustrated in Fig. 1. These devices comprise essentially a rock bar F, which is journaled in boxes E, securely fitted to the sills of the car by the bolts e . This bar F it will be noticed has centrally a long arm f projected therefrom, and a short arm f' also projected therefrom at right angles to the arm f , such arms and the bar F being preferably formed integral, the bar also having at its ends integral handle members F'.

To the long arm f is connected one end of the chain I, and the lower end of a lever or rod J, which extends to the top of the car and fits in a guide j^2 , it also having a spring keeper for a purpose manifestly understood.

The manner in which my improved coupling devices operate is best explained as follows: In practice one of the draw bars is freed from the unlocking devices and turned so its barb

or coupling lip will project upward, as shown at the right in Fig. 2. When this is freed from the uncoupling devices, it rests with its recessed portion a^3 on the cross member H, the recess or flat face a^3 then keeping it from further rotation. The uncoupling bar on the opposing draw head is rocked to bring its members f, f' , practically to the position shown at the right of Fig. 2. As the draw head on the left of Fig. 2 approaches the opposing car, its draw head will ride up on the opposing draw head until its barb is at a point over the coupling lip of the opposing member, when the bar F is caused to rock to permit the upper draw head to drop into engagement with the opposing draw head, and as the bar F is thus rocked its member f' will drop down to a vertical position, as shown at the left of Fig. 2, and thereby hold the upper and lower draw heads locked from accidental displacement.

To uncouple, the bar F is rocked to swing the arms f and f' in an upward direction, which operation is effected by manipulating either of the handles F' or the rod J. As the rear end of each draw bar is free and the said draw bar has practically a universal movement in its bearing, it follows that the draw bars will have a limited lateral movement between the draft timbers and thereby readily adapt themselves to curves, &c.

From the foregoing taken in connection with the drawings it is apparent that my coupling devices possess many advantages in point of simplicity of construction, ease of adjustment and general efficiency, and while more especially adapted for use on steam rail-

way cars, it is manifest they may be readily employed on street railway cars by slightly changing the uncoupling devices, as for example like that shown in Fig. 5.

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

1. The combination with the draft timbers and the draft iron having a central conical-like bearing aperture, of a draw-bar, having its shank provided with a conical-like bearing portion fitting in such aperture, the plate D and the buffer spring A^2 , all arranged substantially as shown and described.

2. The combination with the draft timbers, the draft iron having a conical aperture c and the apertured conical bearing member K, fitting such aperture c , of the draw-bar having a shank member held to turn in the member K, the spring A^2 and the member D, all arranged substantially as shown and described.

3. The combination with the vertically movable draw bar A, of the rock bar F having a member f connected with the draw head and a member f' projected at right angles to the member f , said member f' being adapted to engage the upper face of the draw bar as the bar F is rocked to allow the draw bar to move to a coupling position, all substantially as shown and described.

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

BERTIE B. MOSS.

Witnesses:

MINNIE B. BAKER,
EDITH E. BAKER.