

(No Model.)

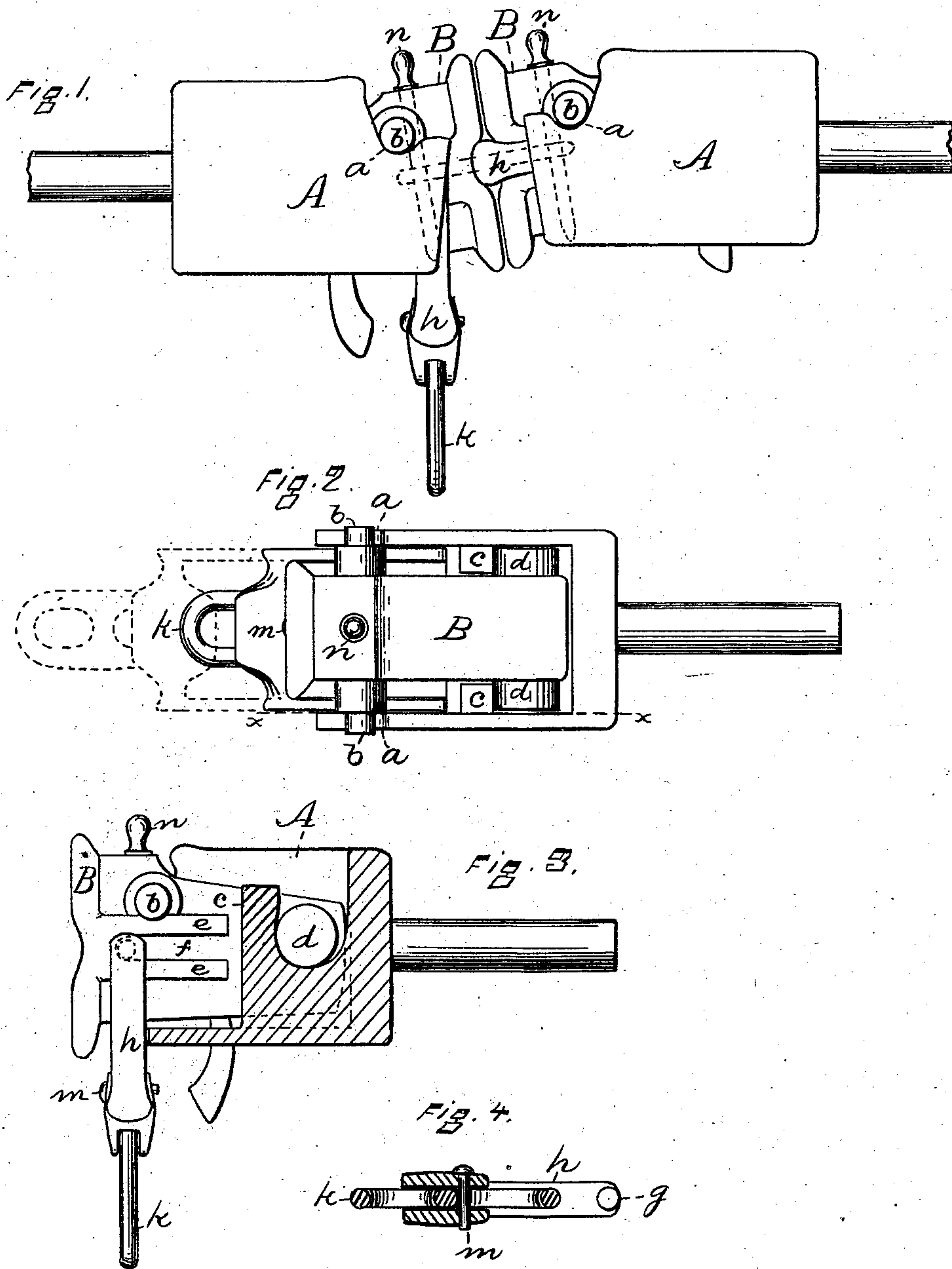
2 Sheets—Sheet 1.

A. H. ARMSTRONG.

CAR COUPLING.

No. 294,345.

Patented Mar. 4, 1884.



Witnesses.

John Edwards Jr.
Martin A. Cond

Inventor.

Arthur H. Armstrong
By James Shepard
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Fig. 5.

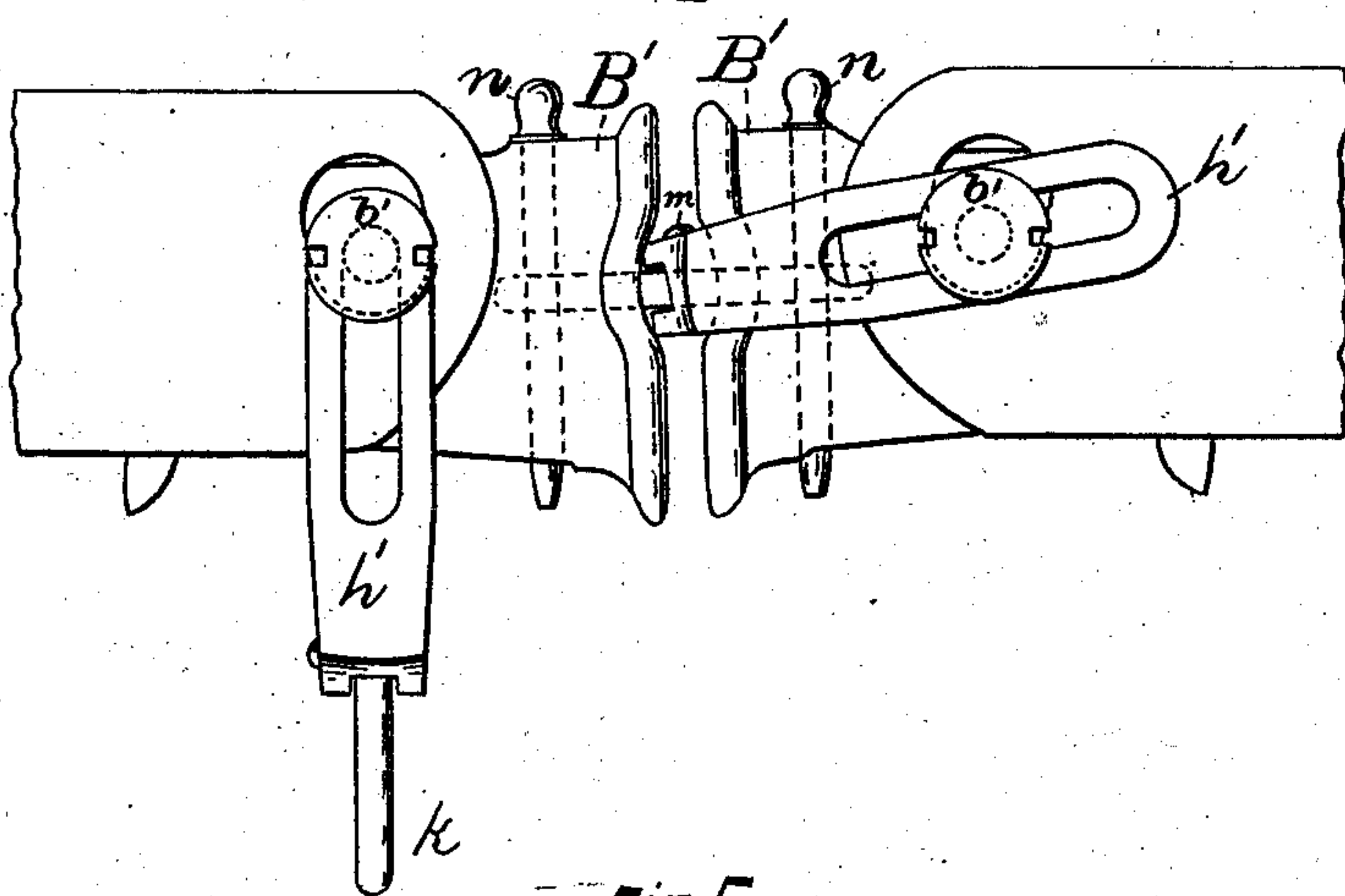


Fig. 6.

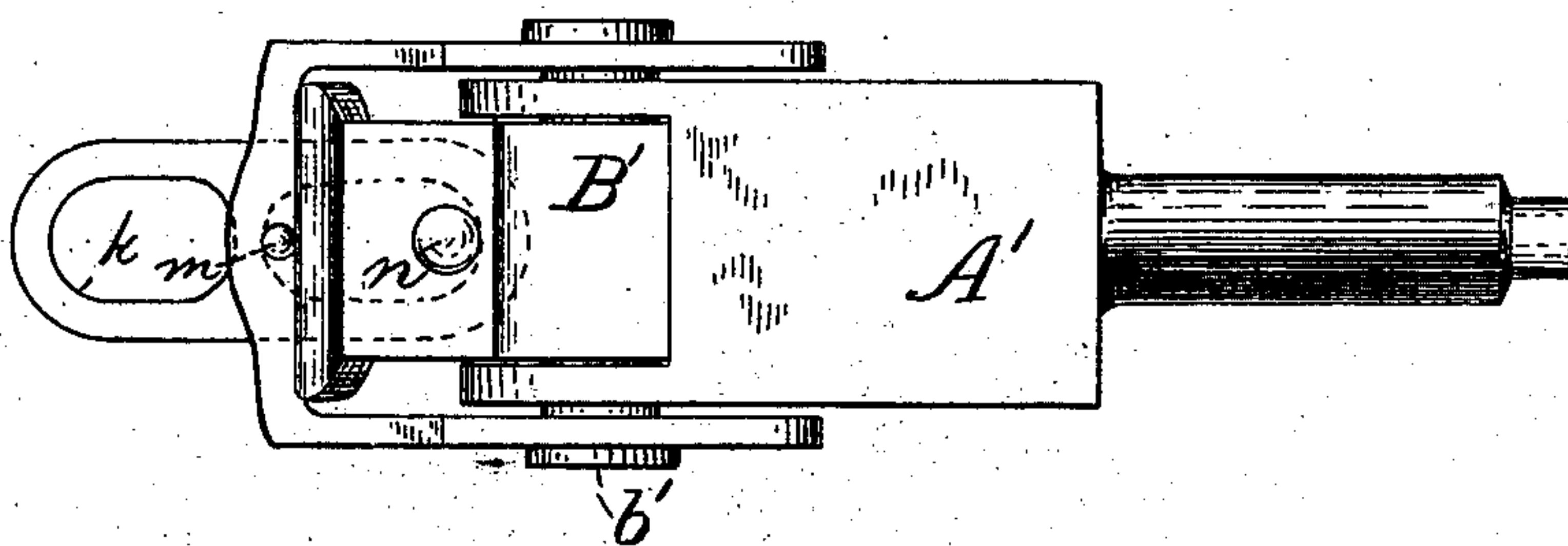
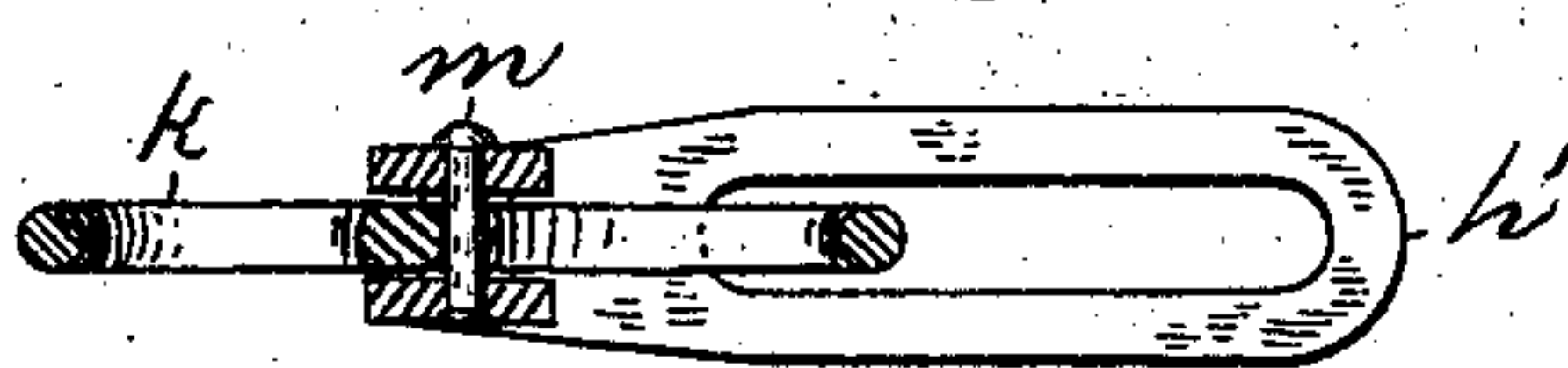


Fig. 7.



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UNITED STATES PATENT OFFICE.

ARTHUR H. ARMSTRONG, OF PLAINVILLE, CONNECTICUT.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 294,345, dated March 4, 1884.

Application filed June 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR H. ARMSTRONG, a citizen of the United States, residing at Plainville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to an improvement upon couplings of the class described in my Patent No. 274,893, of April 3, 1883, and relates more particularly to the manner of holding the link, so as to have it always ready for use, and in the manner of constructing the parts which are adapted to receive the drawing strain; and the objects of my invention are to so connect the link with the coupling that it shall always be in readiness for use; to so construct the parts that they may be more cheaply arranged and put together, and so that the drawing strain comes in a direct line with the link. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a pair of my couplings properly connected together. Fig. 2 is a plan view of a single coupling. Fig. 3 is a vertical section thereof, partly in side elevation, the plane of section being indicated by the line *x x* of Fig. 2. Fig. 4 is a central vertical section of the link and link-holding bail. Fig. 5 is a side elevation of a pair of couplings with only one feature of my present improvement attached thereto—namely, the link-holder. Fig. 6 is a plan view of one of said couplings, and Fig. 7 is a central vertical section of the link and link-bail.

The main head A and the supplementary head B, with exceptions hereinafter noted, are substantially the same as the main and supplementary heads shown and described in my former patent, hereinbefore named, and the tilting action of the supplementary head is substantially the same as therein described. For convenience of construction I leave the main head A open at the top, which open top will, however, be covered by the car when it is secured thereto. Instead of the slots which are closed at both ends in the sides of the main head A, I provide simple trunnion-recesses *a* in said sides, which are open at the top, as shown, and within these recesses are the trun-

nions *b*, upon which the supplementary head tilts when its outer end is depressed. Just within the side walls of the main head A, I arrange inwardly-projecting cheeks *c*, having trunnion-recesses within them, as shown most clearly in Fig. 3, and which recesses receive the trunnions *d* at the inner end of the supplementary head B. These cheeks and trunnions receive the draft of the cars, and the supplementary head B tilts upon said trunnions when its outer end is lifted. These latter trunnions *d* are lower down than the trunnions *b*, and are substantially in the same plane as the link-receiving recess of the head B. By this construction of the heads A and B the parts can be readily formed separately, and they are properly connected by merely dropping the supplemental head B within the main head A. Upon the sides of the supplemental head B, I form cheeks *e*, (see Fig. 3,) within which is the longitudinal groove *f*, left open at its inner end, as clearly shown in said Fig. 3. This slot *f* is for the purpose of receiving the inwardly-projecting trunnions *g*, Fig. 4, at the ends of the swinging bail *h*, said bail having connected to its swinging end the coupling-link *k*, the same being secured within the cross-arm of the bail by means of the pin *m*. When the supplementary head B is lifted out of the main head A, the trunnions *g* of this bail *h* can be readily slipped into the slot *f* and carried into the position shown in Fig. 3. After the head B is placed within the head A, this bail cannot be detached therefrom without removing the head B. In order to bring the link *k* into position for use, the bail is swung from the position represented in Fig. 3 up into a horizontal position, as indicated by the broken lines in Fig. 2, the sliding motion of the link within the cross-piece of the bail *h* and the length of the link being sufficient to enable the bail, with the link attached, to swing by the lower outer corner of the head B. The bail is then pushed inward into the position represented for the bail of the right-hand coupling in Fig. 1, and the link is then slid within the cross-piece of the bail into the link-receiving recess, and secured therein by the coupling-pin *n*. The bail and link for the companion coupling will remain hanging in their pendulous position, as shown upon the left-hand coupling in said Fig. 1. By these means

the coupling-link is always at hand, ready to be brought into action when desired; or, when two couplings of this kind are employed, one of the links may be allowed to remain in its pendulous position. The middle of the slot *f*, in which the bail *h* is mounted, is in the same longitudinal plane as the middle of the link-receiving recess, and thereby the link need not have any swinging motion or play in a vertical direction within the cross-piece of the bail, as it will always be in longitudinal alignment with the axis of the bail.

In Figs. 5, 6, and 7 I have represented the swinging bail *h'* as having slotted arms, and as secured upon the trunnions *b'*, said bail having secured to its cross-piece the link *k*, for use in the manner hereinbefore described; but inasmuch as the trunnions *b'* are slightly above the link-receiving recess, it is necessary to give the link *k* a little vertical play within the cross-piece of the bail. The swinging bail in this modification comes upon the outside of the main head *A'*, instead of the inside, as first described; but when once secured its action in connection with the supplementary head *B'* is substantially the same as the bail *h*, herein first described.

I am aware that a prior patent shows a longitudinally sliding and swinging bail for a coupling, over which bail the ordinary link rests, but without being secured to said bail, and the same is hereby disclaimed.

I claim as my invention—

1. The combination of the main head *A*, having trunnion-recesses *a* at its outer end,

and the cheeks *c* upon the inside at its inner end, with the supplementary head *B*, having trunnions *b* and *d*, the latter of which receives the drawing strain, substantially as described, and for the purpose specified.

2. The combination of the coupling, the longitudinally sliding and swinging bail, and the coupling-link secured within the cross-arm of said bail, substantially as described, and for the purpose specified.

3. The combination of the supplementary head *B*, having side cheeks, *c*, the longitudinal slot *f*, and the swinging bail *h*, carrying link *k*, and having inwardly-projecting trunnions *g*, for engagement with the slot *f*, substantially as described, and for the purpose specified.

4. The combination of the main head *A*, supplementary head *B*, and the sliding and swinging bail carrying the coupling-link, substantially as described, and for the purpose specified.

5. The combination of the main head *A*, supplementary head *B*, the bail carrying the coupling-link, and means located within the walls of the main head for guiding the inner end of the bail longitudinally, and also allowing it to swing freely within said walls, whereby the bail is protected from injury, all substantially as described, and for the purpose specified.

ARTHUR H. ARMSTRONG.

Witnesses:

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