

G. M. BEARDSLEY.

Car Coupling.

No. 70,505.

Patented Nov. 5, 1867.

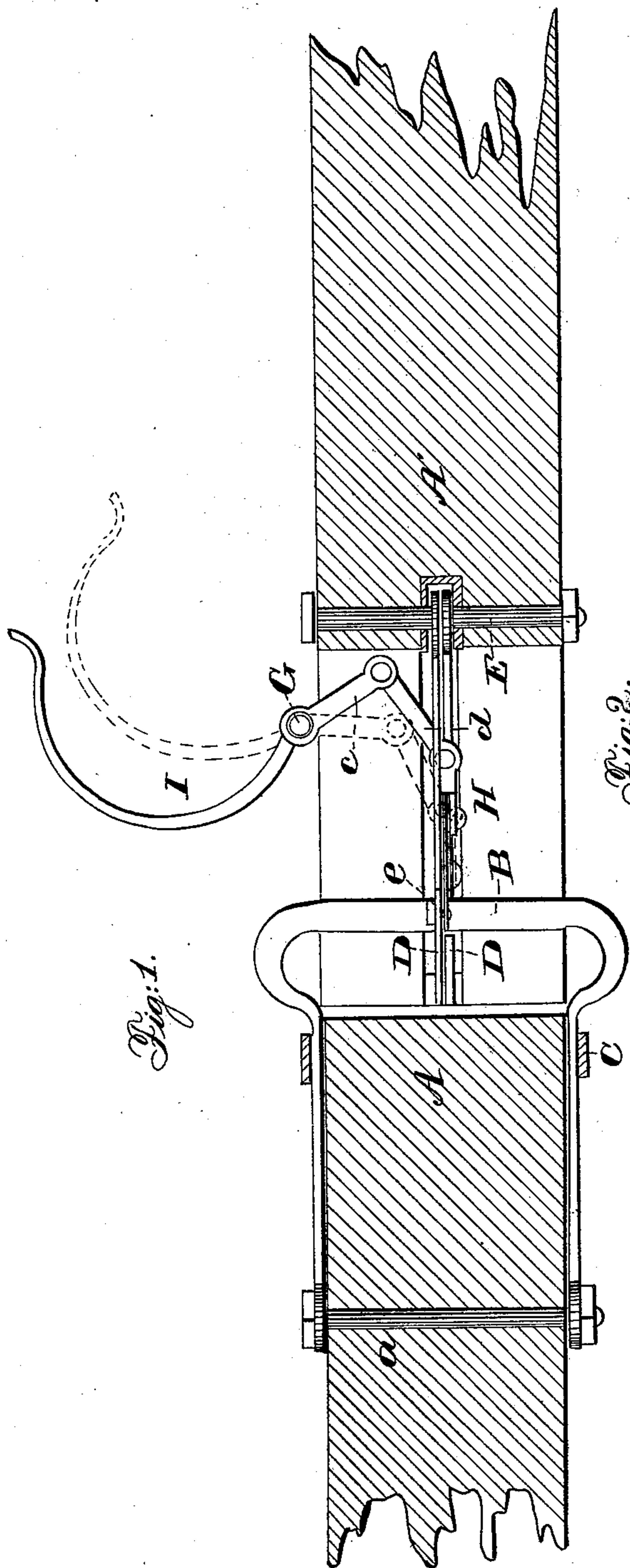
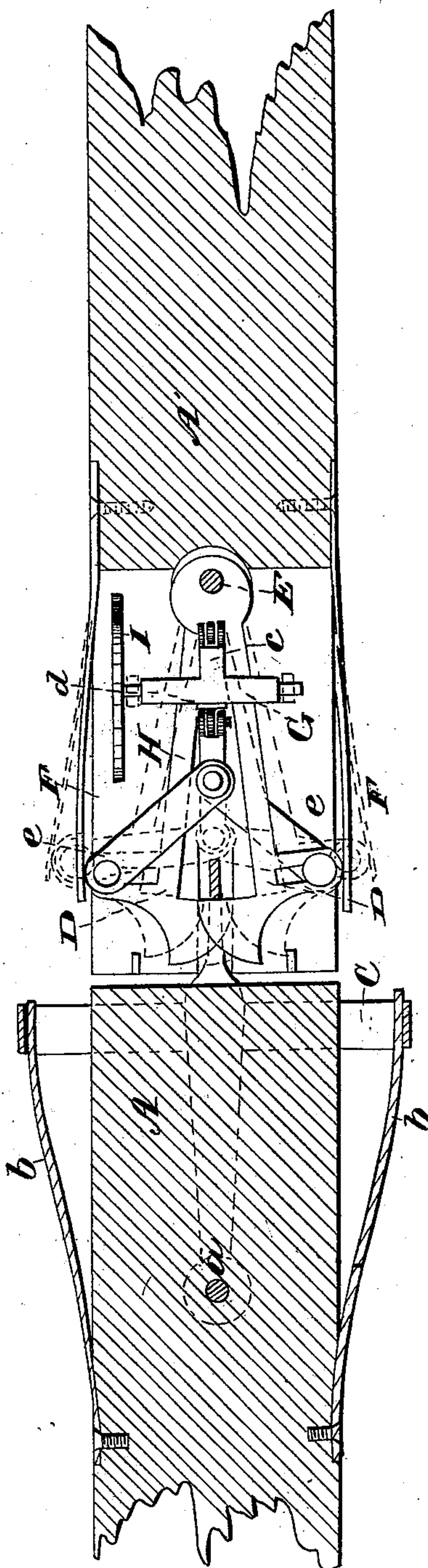


Fig. 2.



United States Patent Office.

GEORGE M. BEARDSLEY, OF FENTON, MICHIGAN.

Letters Patent No. 70,505, dated November 5, 1867.

IMPROVEMENT IN CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE M. BEARDSLEY, of Fenton, in the county of Genesee, in the State of Michigan, have invented a new and useful Self-Coupler for Railroad Cars; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The design of my invention is to do away with the danger of coupling cars, and to make it easy to separate the cars while in motion, in case of accidents requiring that the cars should be separated, to preserve the lives of the passengers that might be thus spared.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my car-coupling in this wise, in which—

Figure 1 of the annexed drawings is a side view.

A, as in the figure, is a representation of one of the buffer-rods, furnished with a clevis, B, similar in form to the common plough clevis, but without notches, and fastened at *a* to the said buffer-rod A by a bolt, and held in the centre of the end of said buffer-rod A by a band, C, and supported in its place by springs *b*, said springs *b* also fastened either by a bolt or with screws, as shown in Figure 2. Said springs *b* to be made strong enough to hold the clevis B in the centre of said buffer-rod A, and likewise to break the sidewise motion of the cars as they strike the rail, thereby easing each car thus connected from the violence of the shock in thus jogging from side to side. Letter A', on fig. 1, is the other buffer-rod represented, as shown in the said figure, and is furnished with two latches D. Said latches are to be made of two plates of iron of equal thickness, and laid one on the top of the other, and fastened as shown at E, by a bolt, and at the other end furnished with a hook, as shown in the figure; likewise, each having a slot, in which are the outer ends of a toggle or knee-joint, *e*, fastened as shown in the said fig. 2. Said latches are held together by two springs F, as shown in the figure. Said springs are also fastened by bolt or screws to the buffer-rod A'. Said toggle or knee-joint is designed to use in uncoupling the cars when needed, and operated, as shown in fig. 2, by means of a reel-shaped joint, H, and a short pitman, *d*, and arm C, shaft G, and lever I. Now, as the buffer-rods A and A' are apart, and they are each attached to separate cars, and lever I is in the position of the black lever, and it is required that the cars should be coupled, all that will be required is to back them together, and they will be fastened to all intents and purposes until the lever is drawn back as shown by the red lever in fig. 1.

To construct this car-coupling I intend to use for the buffer-rods either wood or iron. If wood is used, there will be a slot in the buffer-rod A' of sufficient size to receive the latches and have the stops as shown in fig. 2, to prevent the latches from being forced too far apart. The latches will be made of iron, as also the knee or toggle-joint, which iron will be of equal thickness, and placed together as shown in the said fig. 2, and worked and held to their places by bolts or screws, and springs, substantially as described above. There will likewise be a slot for the admission of the clevis, as shown in fig. 2; said clevis fastened and held in its place substantially as described above. It is likely the buffer-rods will more commonly be made of iron, and will be made of wide bar-iron, with stops between them, leaving room for the latches; and in some cases it will be necessary to make the whole of the parts in a form that will contain in each buffer-rod both the latches and clevis, which can be done easily, and in so doing avoid the difficulty of the cars troubling the operators, in case they should be changed ends with, as would be the case on a Y-track sometimes.

Now, as there is great danger of the cars running off the track, and thereby sometimes destroying many lives, this invention of mine will be of great utility, inasmuch as the difficulty of uncoupling the trains in case of accident is avoided, as by just drawing back on the lever the cars can be uncoupled in an instant, no matter how heavy the train in front draws on the coupling, as there are two of the most powerful principles of mechanics combined in the apparatus to be used in the act of uncoupling. In case the locomotive should be in the act of leaving the track over an embankment, and in all probability the whole train is likely to follow with the ordinary coupling, this is to enable the brakeman, at a given signal, to instantly uncouple the train, no matter what the motion is at which it is running, and at the same time put on the brake, and thereby save the lives of many human beings that otherwise must be lost.

If the buffer-rods are made of iron it will be necessary to observe the above arrangement in all its parts. The toggle-joint can be moved with the common lever or with the ordinary cam; either will do it by a little difference of form. If it is wished to move the cars to a short distance by backing the train, and not have them connect, the lever will necessarily have to be fastened back, so as not to allow the latches to close in the clevis, and that will be all that will be necessary to observe, the whole to be constructed and operated as described above.

I claim the double hooks D D with operating arms and levers, in combination with the arrow-headed coupling-bar, its frame and springs, all constructed and arranged as described and for the purpose as set forth.

GEORGE M. BEARDSLEY.

Witnesses:

E. M. HOVEY,

W. P. GUEST.