(No Model.)

A. T. LOTT.

CAR COUPLING.

No. 332,617. Patented Dec. 15, 1885.

Fig. 1.

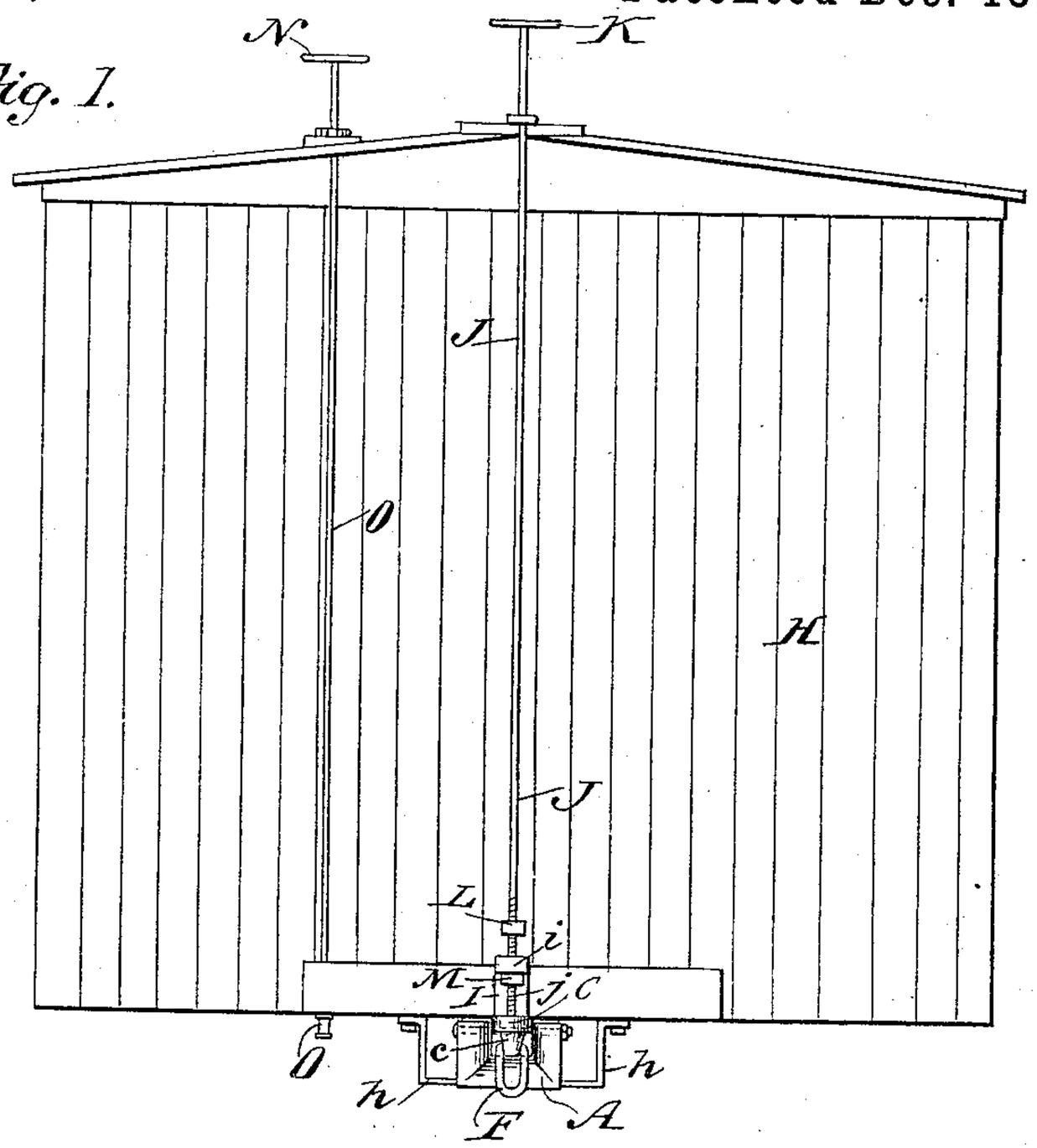
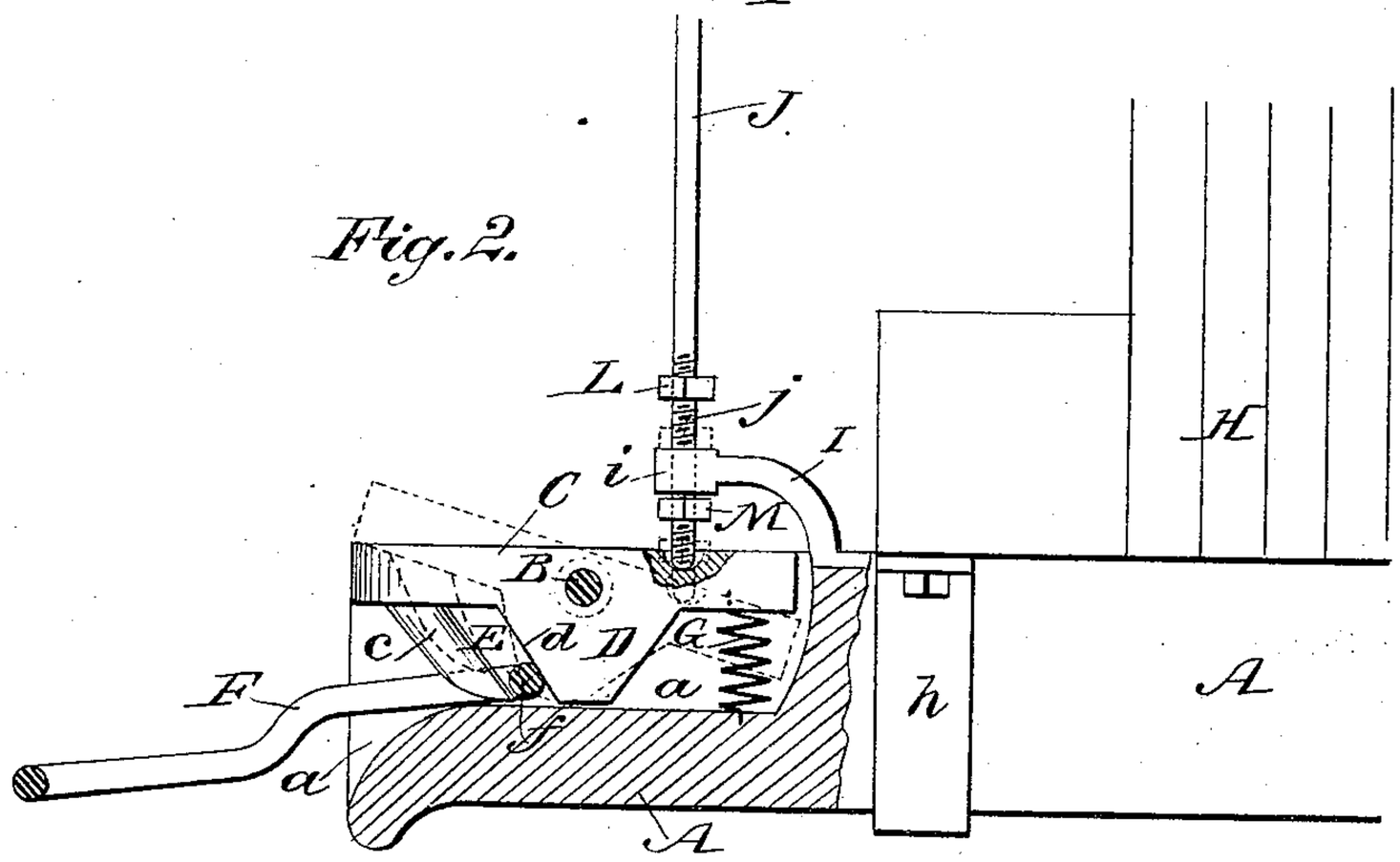


Fig. 2.



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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 332,617, dated December 15, 1885.

Application filed March 14, 1885. Serial No. 158,930. (No model.)

To all whom it may concern:

Be it known that I, ADRIAN T. LOTT, of Coldwater, in the county of Tate and State of Mississippi, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

My invention relates to car-couplings, and has for its object to prevent injury to the train-men in coupling, uncoupling, or switching cars, and to save time and labor in operating railways. The invention consists in a car-coupling comprising a draw-head provided with a pivoted and spring-pressed coupling-plate having an inclined downwardly-projecting hook, allowing automatic coupling of the cars, together with a screw-rod adapted to be operated from the top of the car, so as to tilt the coupling-plate to lift its hook for uncoupling the cars, said rod having stop nuts or collars to limit its movements both ways, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is an end view of an ordinary box-car with my improved coupling applied, and Fig. 2 is an enlarged sectional side elevation of the coupling and a portion of the car.

The letter A indicates the draw-head of my improved car-coupling, and *a* is the socket or recess of the draw-head, which is open at the top, and in which is pivoted on a heavy pin or bolt, B, the coupling-plate C, which is provided with a hook or tongue, *c*, which projects downward and backward from the front part of the plate C, and so the back edge or face of the hook *c* ranges about parallel with the front inclined face, *d*, of a heavy lug, D, fixed to and pendent from the plate C, below the pivot-pin B of the plate, so that a space, E, is provided between the hook *c* and the lug D, into which the end *f* of a coupling-link, F, may enter.

Between the under side of the back end of the coupling-plate C and the floor of the draw-head socket *a* is placed a spring, G, preferably of spiral form, and which acts by its expansion to force the coupling-hook *c* downward toward the floor of the link-socket. The lug D prevents the link F striking and injuring the spring G.

The draw-head A is supported on the car-body H by a metal-frame bar, *h*, in which the draw-head has lateral play when the car is rounding curves of the track, and the draw-head will be provided with a buffer spring or springs of any approved construction, to ease the shocks in coupling the cars. To the draw-head is fixed the arm I, which has a threaded end collar or bearing, *i*, in which is fitted the threaded lower end, *j*, of a rod or bar, J, which extends upward to the top of the car, and has a hand-wheel, K, by which it may be turned to carry the lower end of bar J downward to tilt the plate C and lift its coupling-hook *c* above the end *f* of link F for uncoupling the cars, or for preventing the coupling of cars backed together when shunting them about the yard in making up trains, or while pushing cars on sidings of the track. Stop-nuts L M are run on the threaded end *j* of rod J, one above and the other below the bearing *i*, to limit the up and down movements of the rod. When the rod J is moved up to the position shown in Fig. 1 and in full lines in Fig. 2, so the stop-nut M contacts the bearing *i*, the spring G forces the coupling-hook downward, and as the draw-head is about to couple with the link held to another car the end of said link will strike the inclined forward face of the hook *c* and tilt the coupling-plate C upward at the forward end, so the end of the link may pass behind the hook and between it and the lug D of the plate, whereupon the spring G will force the hook *c* down in front of the end of the link and complete the coupling.

To uncouple the cars, the rod J is to be turned down to raise the coupling-hook *c*, as before stated, and as indicated in dotted line in Fig. 2.

By using straight or bent links F cars whose draw-heads stand at equal or unequal heights may readily be coupled or uncoupled by the use of my improvement.

It is evident that the cars may be uncoupled from their tops by operating the hand-wheel K while the cars are at rest or in motion; hence the train-men do not stand between the cars and expose themselves to injury; and my

improvement also saves time and labor in operating railways, as the train-man may first uncouple the moving cars by turning down the rod J, then he may turn the rod back or upward again to provide for coupling automatically with another car or with the engine, and then he may operate the hand-wheel N of the brake-shaft O, to put on the brakes as the car runs or is pushed by the engine to couple with any other car of a train; hence the uncoupling, switching, and recoupling of the car may be controlled by a single man, the hand-wheels K N being quite close together, so the coupler and brakes may be operated conveniently, as will readily be understood.

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

1. In a car-coupling, the combination, with the draw-head A and pivoted and spring-pressed coupling-plate C, having a hook, *c*, substantially as specified, of the arm I *i* and the screw-rod J, extended to the top of the car, substantially as herein specified.

2. In a car-coupling, the combination, with the draw-head A, pivoted and spring-pressed coupling-plate C, having hook *c*, the arm I *i*, and screw-rod J, of the stop nuts or collars L N on rod J, substantially as herein set forth.

his
ADRIAN T. × LOTT.
mark.

Witnesses:
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