H. C. GLASGOW.

Car Coupling.

No. 38,819. Patented June 9, 1863.

Fig. 4

Fig. 2

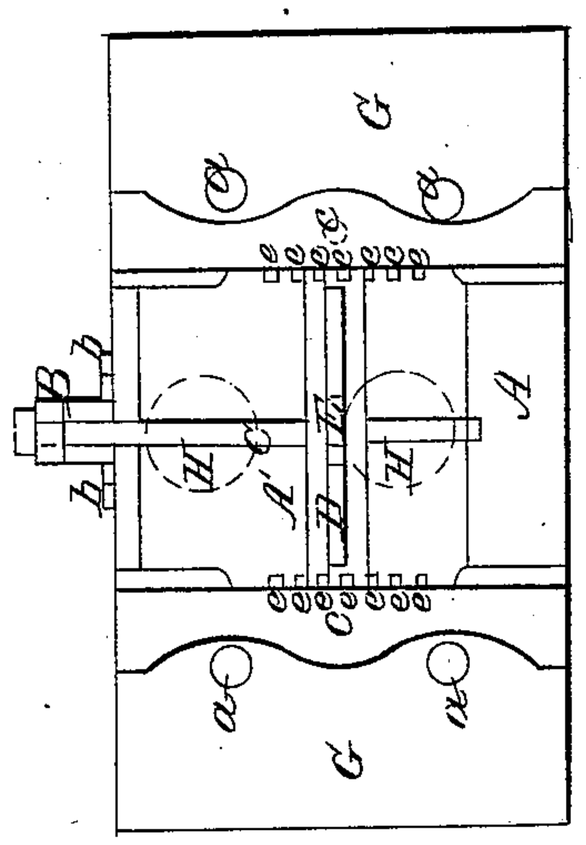


Fig. 5

Fig. 6.

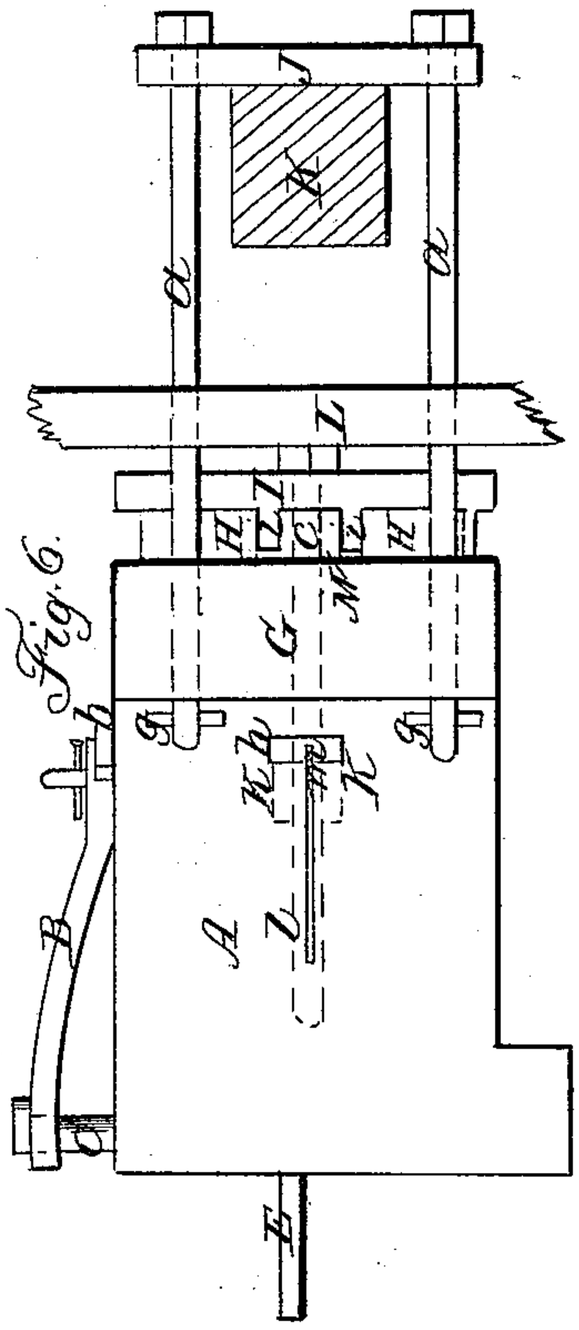


Fig. 1

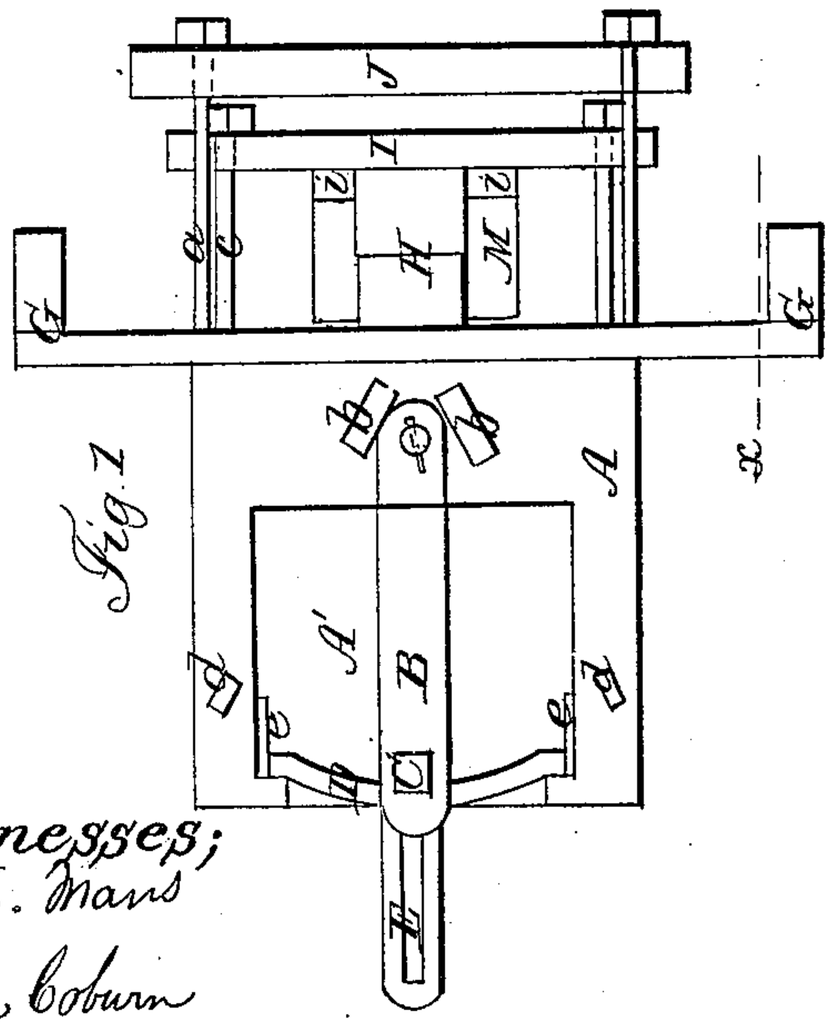
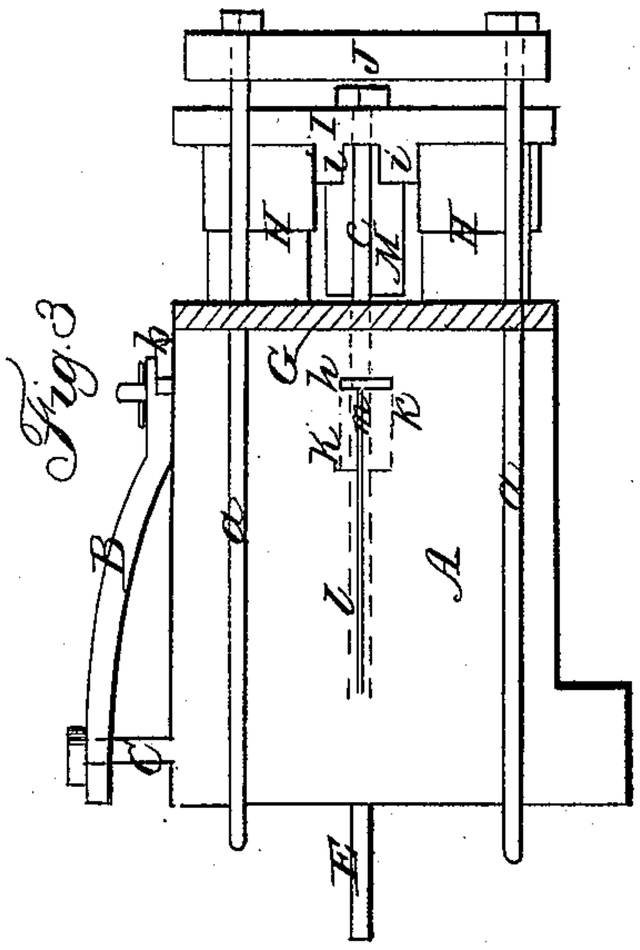


Fig. 3



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UNITED STATES PATENT OFFICE.

HENRY C. GLASGOW, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CAR-COUPLING.

Specification forming part of Letters Patent No. **38,819**, dated June 9, 1863; antedated December 25, 1862.

To all whom it may concern:

Be it known that I, HENRY C. GLASGOW, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Devices for Coupling Cars together; and I do hereby declare that the following is a full, clear and exact description thereof, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form a part of this specification.

In the aforesaid drawings, Figure 1 represents a plan view of my invention; Fig. 2 a view of the abutting end thereof; Fig. 3, a side elevation of the same, showing a section through Fig. 1 at the line *x*; Fig. 4, a side view of the pin C, showing the construction thereof; Fig. 5, the adjustable bar D, which supports the link E; and Fig. 6 represents the whole device as attached to the car.

In the first three figures the device is shown without reference to its attachment to the car, but only with reference to the relative position of the several parts composing the same to each other.

The object of my invention is to obtain a device for coupling together the cars composing a train of such a nature that there shall be the least possible slack in the connections thereof, that cars unequal in height may be coupled together without the use of long links or connections, and in such a manner that the draft shall be horizontal; and that the cars may be run together preparatory to being coupled without the necessity of any persons standing between or near the cars, and, when the cars have been run together and are at rest, the person whose duty it may be can go in between the cars and complete the coupling of the same without moving the train or any part thereof and with no danger whatever to life or limb.

To enable those skilled in the art to construct and use my invention, I will now proceed to describe the same with particularity.

A, representing the abutment, is substantially in the form of a box open at the top and the abutting end, and its depth on back to front is sufficient to allow the link E to slide back so as to lie entirely within the interior A′, its vertical depth being about ten inches. Through the sides of A are the longitudinal slots *l*, and within the sides, which are of a sufficient thickness for this purpose, are the longitudinal bores in which the rods *c* are inserted, marked by the dotted lines. Into these said bores are cut the vertical slots, (marked *h*,) at which point the said bores are enlarged, as shown by the dotted lines *k k*. A, including the blocks *b* and the ribs *e*, is of cast-iron, and should be cast in a single piece.

B represents a cast-iron arm for keeping the pin C in place, and can be moved around so as to allow the lower end of C, when drawn up above the upper edge of A, to rest in the sockets *d*, but is prevented from moving farther by the block *b*.

C, the coupling-pin, is of wrought-iron, and its peculiar construction is seen in Fig. 4. The object of the depressions in the lower end thereof, which correspond to the configuration of D, will be hereinafter described.

D represents a bar (shown in Fig. 5) which supports the link E, and by means of the ribs *e* can be raised or depressed to bring the link E to any required height. D may be curved, as shown in Fig. 1, or it may be straight with a shoulder, bringing the ends thereof on a line with the front of A. D may be of cast-iron, and is held in place by the jaws or shoulders on the front of the inside of A.

E, the coupling-link, is of wrought-iron. G is of strong, heavy plank of suitable dimensions, perforated for the rods *a c*, but not otherwise connected or attached to A.

H represents two hollow cylindrical cups containing springs of rubber or other suitable material. These cups are constructed in two parts, one fitting nicely within the other, so that when pressure is applied sufficient to compress the spring within one will slide into the other. One of these parts of each cup is firmly fastened to G and the other part to I. The part attached to G is a separate casting, but the part which is attached to I is cast together with I, which is also of cast-iron.

i i are cast-iron, also, and are cast upon I. M is of wood and slides between the jaws *i*, as shown in the drawings. The wrought-iron rods *c* are attached to I, and the wrought-iron rads *a* are attached to the plate J.

Fig. 6 represents substantially the manner in which my invention is attached to the car, K representing the transom-beam, on which

the body of the car rests, and L the front end of the car.

The wrought-iron rods *a*, attached to J, passing through L and G, are fastened by means of the keys *g*, or in any suitable manner, to prevent their withdrawing through G; and the rods *c*, passing through G into the longitudinal bores in the sides of A are fastened thereunto by the keys *n*, which are inserted through the slots *l* in A. By this arrangement it is readily seen that the first shock, either in starting the train or in stopping it, comes upon the springs within the cups H. The heads on G, being of suitable dimensions, then come in contact with the front of the car and receive the next pressure, and afford whatever of spring there is in the plank G to ease the shock, and lastly the pressure comes upon the block M, its thickness being so proportioned that this end is attained.

When the springs in H become worn with use, the block M may be decreased in thickness, and the connections by the rod *c* may be made tight and close by introducing washers into the enlarged bores *k k*, through the vertical slots *h*, or new springs may be substituted for the old ones.

When the cars have been run together, the person whose duty it may be goes in between the cars and raising up the pin C inserts it in *d*, and, adjusting the bars D to the requisite height in each abutment, arranges the link E, and dropping the pin C through the link, the coupling is accomplished.

Should the cars stand upon a curve so that the link E might not quite reach from one pin to the other, the pin is drawn up, and the depressions in it are adjusted to D, whereby the link is made to extend farther to make the connection with the other car. The arrangement whereby the link E slides back into A′ obviates the necessity of any one standing between or near the cars when in motion to guide the link into the slot in D.

I claim as my invention—

1. The combination and arrangement of the abutment A, the arm B, the pin C, the bar D, and the ribs *e*, constructed and operating substantially as and for the purpose set forth.

2. The combination and arrangement of the abutment A, the rods *c*, the plate I, the rods *a* G, the plate J, the cups H, and the block M, all constructing and operating substantially as and for the purposes delineated and set forth.

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