2 Sheets—Sheet 1.

A. S. ALBRIGHT.

CAR-COUPLING.

No. 190,532. Patented May 8, 1877.

Fig. 1.

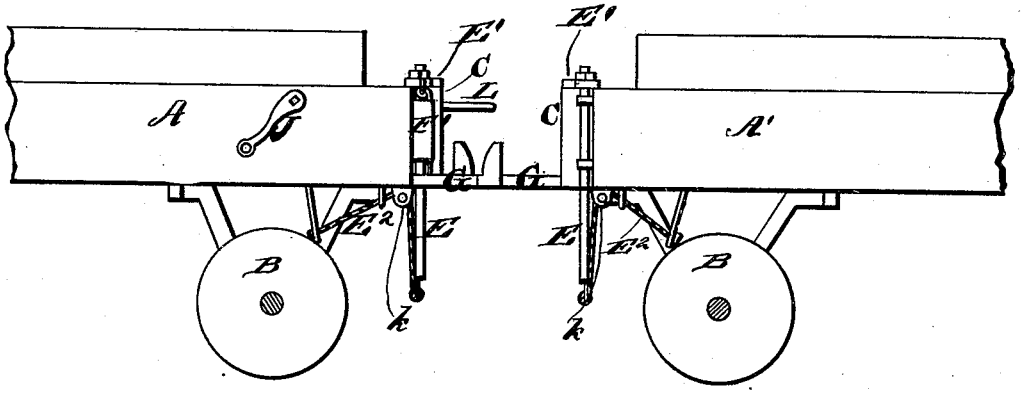
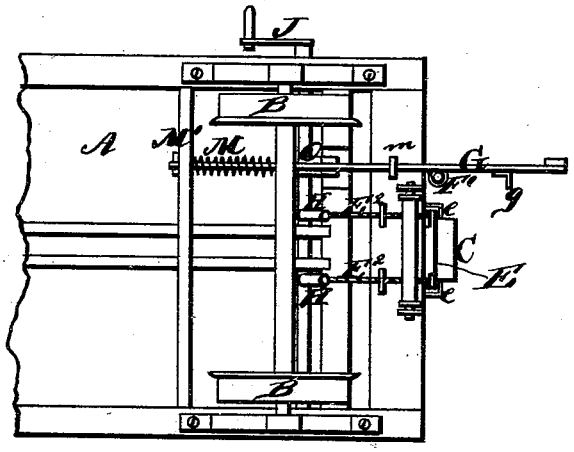


Fig. 2.



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2 Sheets—Sheet 2.

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CAR-COUPLING.

No. 190,532. Patented May 8, 1877.

Fig. 3.

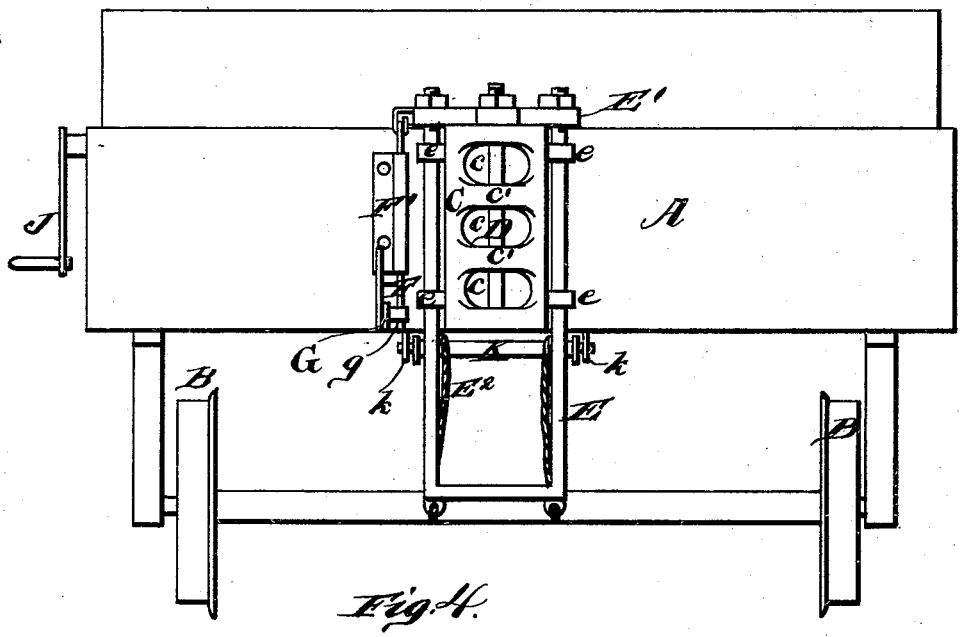
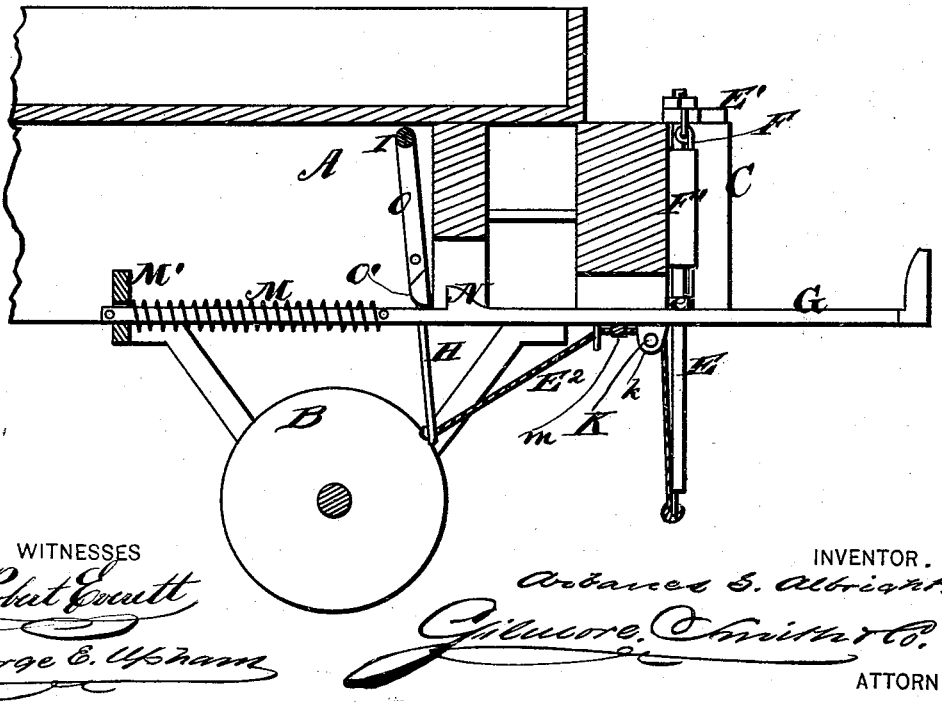


Fig. 4.



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UNITED STATES PATENT OFFICE.

ARBANES S. ALBRIGHT, OF CRANESVILLE, WEST VIRGINIA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **190,532**, dated May 8, 1877; application filed March 17, 1877.

To all whom it may concern:

Be it known that I, ARBANES S. ALBRIGHT, of Cranesville, in the county of Preston and State of West Virginia, have invented a new and valuable Improvement in Self Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of my self car-coupling, and Fig. 2 is a bottom view thereof. Fig. 3 is a front elevation, and Fig. 4 is a central vertical sectional view, of the same.

This invention relates to automatic car-couplers; and it consists in the construction and arrangement hereinafter set forth and claimed.

In the accompanying drawings, A and A′ designate the bodies of two cars provided with my improved automatic coupling devices, and running upon wheels B. Each of said cars is provided with a bumper and draw-head, C, having three flaring mouths or openings, *c*, arranged in a vertical line, and separated by horizontal partitions *c′*. Through each of these draw-heads and its partitions works a vertical coupling-pin, D, which extends downward from the top bar E^1 of a metal sash, E. Said sash is made in two pieces, said bar E^1 being detachable from the rest of the sash, so as to allow said coupling-pin to be separated, and conveniently repaired in case of injury. Said sash extends some distance below said bumper and draw-bar when in its lowest position, and slides vertically in guides *e*, attached to the end of the platform of said car-body. Said sash carries at one side a vertically-moving locking-pin, F, which is guided by a fixed casing, F′, and is adapted to engage with a lug or stop-piece, *g*, on the side of a sliding coupling-operating rod or bar, G, and thereby to lock said sliding bar G when the latter is forced inward by contact with the platform of the opposite car.

From the bottom bar of said sash E the ends of a cord or chain, E^2, attached thereto by its middle, extend backward to two arms, H H, formed with a transverse rock-shaft, I, which is journaled in the sides of the bottom of said car, and provided outside of the same with an operating-crank, J. Between said sash E and said arms H said cord or chain E^2 passes over a small shaft, K, journaled in brackets *k k* on bottom of said car or its platform. When the said crank is turned forward the draft of arms H on cord or chain E^2 operates to raise said sash, raising coupling-pin D, so as to free link L, and thereby uncouple the cars. The rising of said sash E also lifts locking-pin F out of engagement with stop-piece or lug *g* on the side of sliding rod or bar G, and said bar G is then thrown forward by the action of a spring, M, which bears at one end against a shoulder or cross-piece on said sliding bar or rod, and at the other end against a cross-bar, M′, fixed to the bottom of said car. Said bar G slides through a perforation or slot in said cross-bar M′, and also through a guide-loop, *m*, attached to the bottom of said car.

On the upper side of said sliding bar is a lug, N, which is vertical behind, but inclined in front. Rock-shaft I is provided with a downwardly-extending arm, O, which has a pivoted tip, O′, so arranged that it will bend forward; but when pressed back the said arm and tip operate as if in one rigid piece. When sliding bar G is forced backward by the action of the opposite car, lug N engages tip O′ of arm O, and turns shaft I forward, so as to raise the coupling-pin D until the link enters the draw-head below. As soon as the said lug N passes beyond arm O the said rock-shaft I is free to turn. The weight of sash E then causes the latter to fall, carrying down coupling-pin D and the locking-pin above described. The coupling is now complete.

When the car is to be used for carrying the link to couple with the opposite car, the apparatus is left in the position last described.

A car provided with the devices hereinbefore set forth may be employed for coupling with a car having only an ordinary draw-head and coupling-pin.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination of a

sliding bar, G, having stop piece *g*, with locking-pin F, sash E, and devices for raising said sash, substantially as and for the purpose set forth.

2. In a car-coupling, the combination of a sliding bar, G, having lug N and spring M, with rock-shaft I, arms O H H, cord or chain E^2, and sash E, carrying coupling-pin D, substantially as set forth.

3. In a car-coupling, the combination of crank J with rock-shaft I, arms H H, chain or cord E^2, sash E^1, sliding bar G, and pins D F, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ARBANES S. ALBRIGHT.

Witnesses:
JOS. B. LOOMIS,
EUGENE W. JOHNSON.