J. H. MEREDITH.

Car-Coupling.

No. 224,599. Patented Feb. 17, 1880.

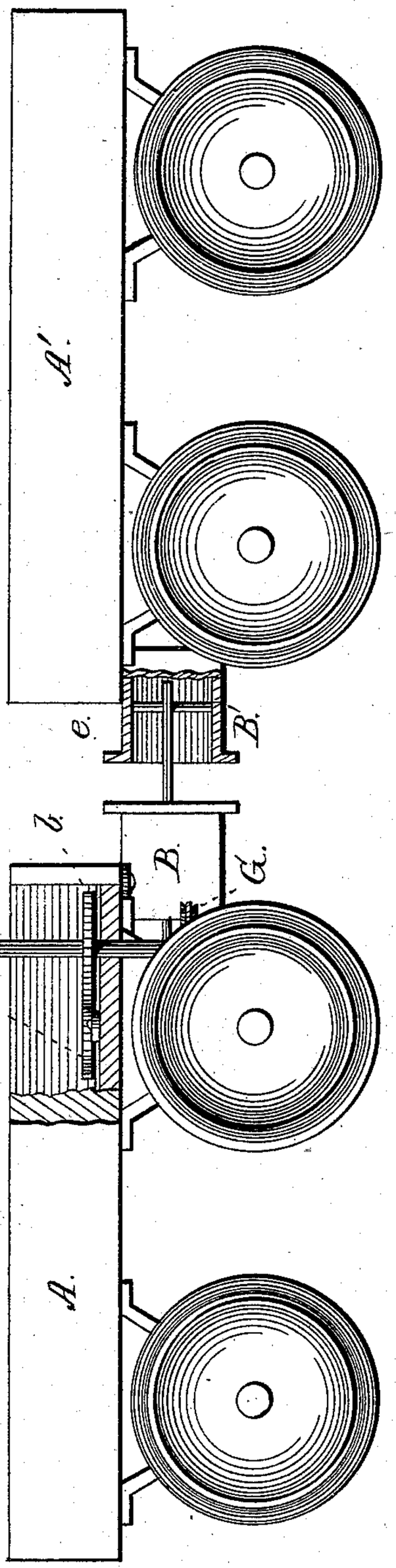

Fig. 1.

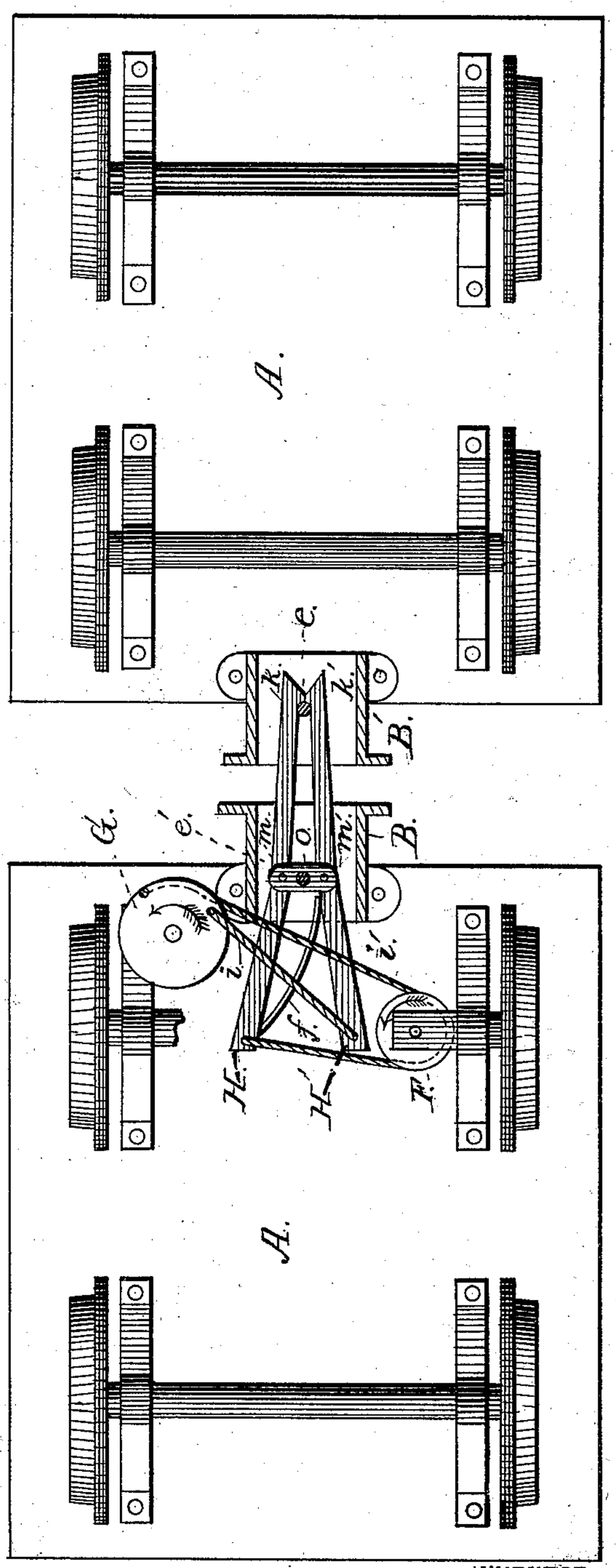

Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN H. MEREDITH, OF SURATTSVILLE, MARYLAND.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 224,599, dated February 17, 1880.

Application filed October 16, 1879.

To all whom it may concern:

Be it known that I, JOHN H. MEREDITH, of Surattsville, in the county of Prince George and State of Maryland, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

The object of my invention is to construct a coupling which will be automatic in its action, simple, which may be disconnected without danger, and which can be applied with small expense to the draw-heads in general use, and which will connect cars of different heights.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of two platform-cars having a part of one of the draw-heads and of one of the sides of the car broken away to show the construction of the coupling. Fig. 2 is a plan of the bottom of the cars.

In Fig. 1 is shown a hand-wheel, *a*, attached to the top of shaft *a'*. Lower down, just above the floor of the car, also attached to shaft *a'*, is a ratchet-wheel, *b*. Fastened to the floor of the car is a pawl, *c*, so arranged that it may be engaged or disengaged by the foot of the operator. On the lower end of shaft *a'* is fastened a grooved wheel, G.

In Fig. 1 car A' is shown with the draw-head B' made somewhat deeper than ordinary draw-heads, one side being broken away to show the pin *e*. This pin may be permanently fixed to the draw-head B', or may have a ring or head at the top and be inserted in holes in the top and bottom of the draw-head B'. I prefer to make this pin round, as shown in the drawings, or square or triangular.

In Fig. 2 is shown the plan of the bottom of cars A and A', with the bottoms of draw-heads B and B' broken away. Draw-head B is provided with a central pin, *e'*. To this pin are attached two plates of metal, O. A short distance apart, between the metal plates O, are inserted two metal plates, H H'. Each plate is provided with a hook or catch, K K', on the front end, and is beveled off to a point from the inner side. The plates H H' are held in their proper places by pivots *m m'*, and the rear ends of plates H H' are kept apart by the spring *f*, which may be made of any convenient form for this purpose, (elliptical or spiral.) On one end of plate H is attached a cord, rope, or chain, *i'*, which passes around one side of the pulley F, and has the other extremity fastened to the pulley G. Plate H' has a chain, rope, or cord, *i*, attached to it at one end, the other end of the chain *i* being fastened to the pulley G.

In operating this device, the cars, when pushed together, cause the pivoted arms or plates H H' to open when they strike against the pin *e*, and as soon as the catches K have passed the pin *e* the arms H H' close automatically by the action of the spring *f*, and thus cause the cars to be firmly coupled together. To uncouple them the operator disengages the pawl *c'* from the ratchet-wheel *b*, and upon turning the hand-wheel *a* the ropes *i i'* are wound around the pulley G and draw the ends of the arms H H' together and throw the catches K K' apart, so that the pin *e* may pass freely between them.

I do not claim, broadly, two pivoted hooks arranged in one draw-head to fasten automatically on a pin in the opposite draw-head, as I am aware that such is of itself not new.

I place the hooks so that they open in a horizontal plane, and by making the draw-head deeper than usual cars may be coupled which vary in height considerably; and by having the pulley G attached to the shaft of the hand-wheel *a* and providing the pulley G with two chains, the opposite ends of which are attached directly to the rear of the arms of the hooks K K', I am enabled to open the hooks K K' instantly with a very small turn of the hand-wheel *a*, and thus separate the cars from each other before they have time to rebound.

What I claim is—

The combination of the draw-head B, pin *e'*, with plates *o* secured thereon, the plates or arms H H', provided with hooks K K' and pivoted between said plates, the chain *i'*, attached to one arm and passing around the pulley F to the wheel G, and the chain *i*, running directly from the other arm to said wheel, with the draw-head B' and pin *e*, substantially as and for the purposes herein set forth.

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Witnesses:

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