(No Model.)

2 Sheets—Sheet 1.

T. HARDING.

CAR COUPLING.

No. 274,764. Patented Mar. 27, 1883.

Fig. 1.

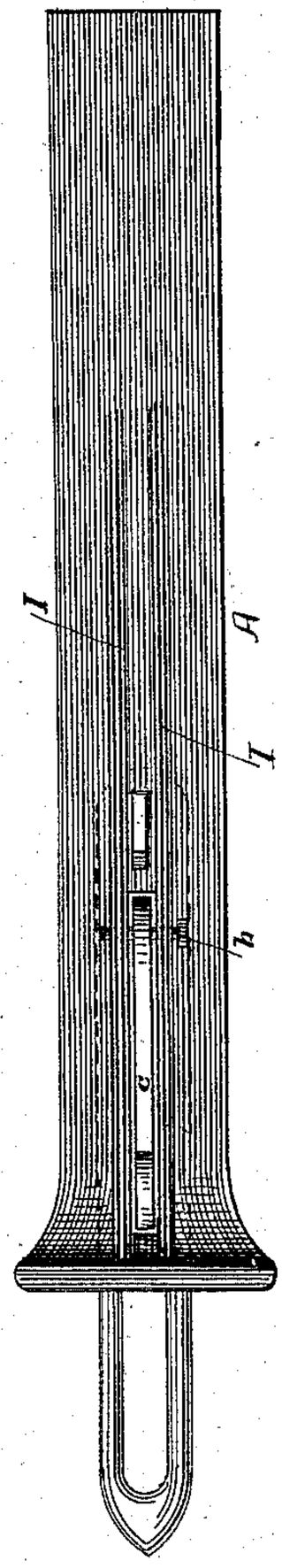
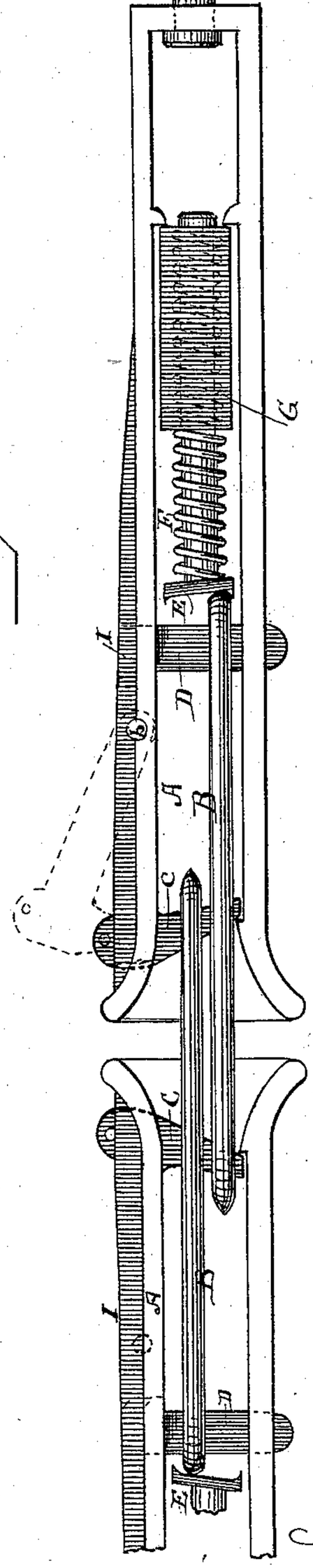


Fig. 2.



Witnesses:
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F. A. Fonts

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(No Model.) 2 Sheets—Sheet 2.

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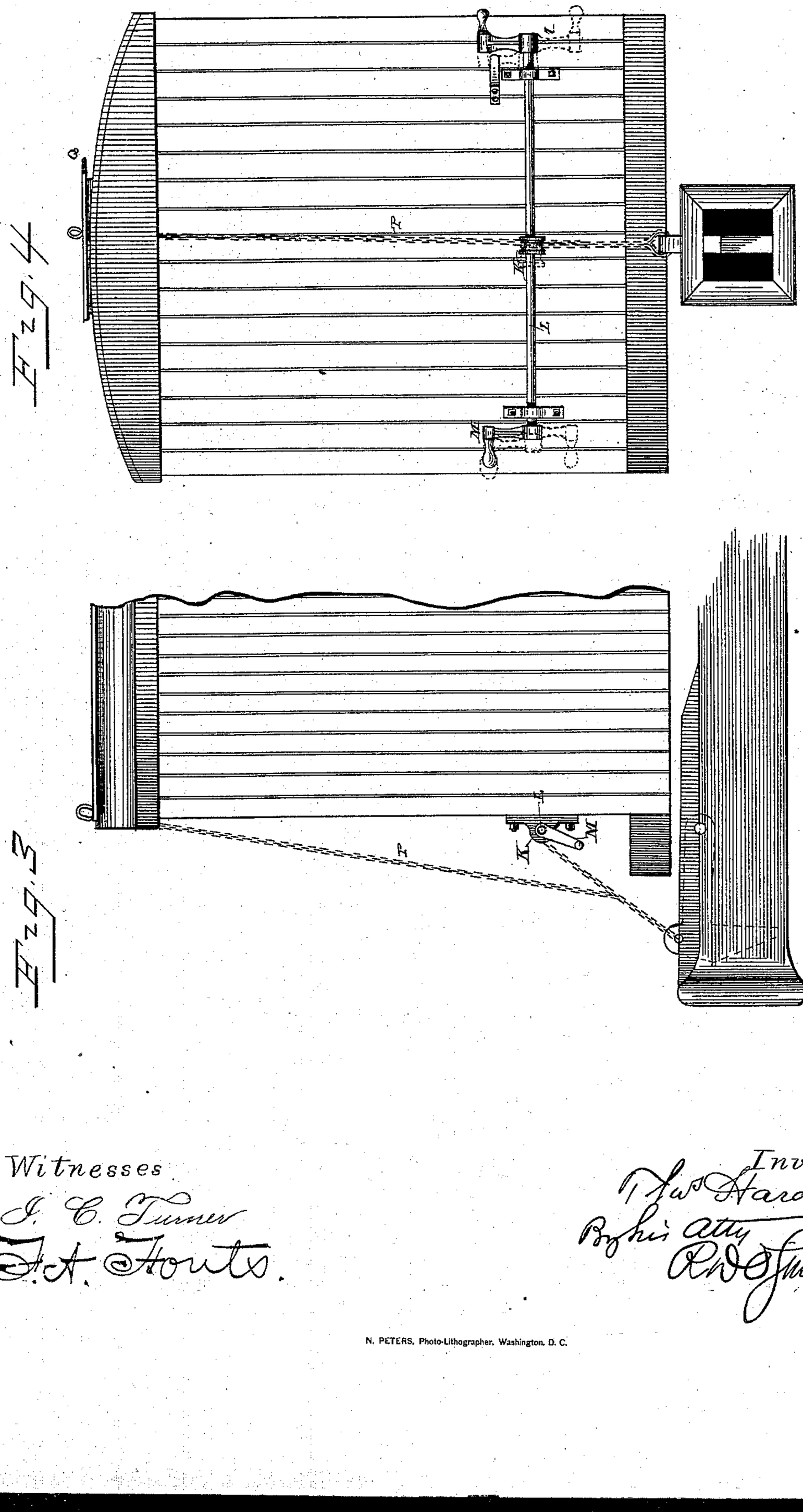

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UNITED STATES PATENT OFFICE.

THOMAS HARDING, OF LAFAYETTE, INDIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 274,764, dated March 27, 1883.

Application filed January 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, THOMAS HARDING, of Lafayette, in the county of Tippecanoe and State of Indiana, have invented new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full and accurate description of the same, reference being had to the accompanying drawings, wherein—

Figure 1 is a longitudinal section of my improvement. Fig. 2 is a plan of the same. Fig. 3 is a side elevation of the end of a car with my coupling. Fig. 4 is an end elevation of the same.

A is the draw-head or buffer.

B is the link, secured in said head by the pin D.

At the front of the buffer there is a pivoted latch, C, the front end of which may be beveled at such an angle as will enable an incoming link to force it upward until said link has passed, when it will fall in place again, the nose of the latch having passed through the link.

Behind the link B and pin D there is a spring-buffer, E, provided with a strong spring, F, seated in box G, through which the buffer-pin passes freely. The buffer E is provided with a face inclining forward and somewhat concave, so that as it presses forward upon the end of the link the latter is not only clamped against the pin D, but by the inclined face of the buffer the link is forced and held down upon the floor of the draw-head, and is thus maintained in a position adapted to cause it to enter the opposite draw-head with certainty when two cars are brought together. The front end of each link is angular or pointed, so that two entering links will not squarely encounter each other, but one or the other will rise up and ride upon the other as they enter the opposite draw-heads.

The latch C is pivoted by a bolt, *b*, which passes through the ribs I I, made on the top of the draw-head A for that purpose. The hole in the end of the latch C is made oblong, and the slot in the draw-bar, at the front end of the latch, is made slightly beveling, so that when the strain is on the latch C it is drawn forward against the incline and prevents the latch from working upward, but when the link presses against it is pressed backward, and is back from the front end of the slot and free to rise up to let the link pass in. By these means the couplings of several cars may be made automatic and relieved from the danger which usually attends the couplings of cars. The attendant having placed the link in the proper position to enable it to enter the opposite draw-head, when the cars are brought together, the coupling will be automatically effected.

Each draw-head being provided with a link held by a pin independent of the latch, whereby the link of the opposite draw-head is engaged, the coupling is effected by two links independently secured. If one of the latches fails to move when engaged by the incoming link, or if any foreign body is present in the draw-head, so that the opposite link cannot enter, then the buffer of said opposite link will yield and no damage will ensue.

When for any reason the coupling cannot be effected automatically, the hook C may be raised by means of the winch K upon a shaft, L, the ends of which rest in boxes secured to the front of the car, and are provided with crank-handles M, by which said winch may be partly rotated and the hook raised. When it is desired to hold the hook up out of action, the shaft L may be pushed endwise in its boxes until one of the crank-handles passes under a stationary hook or catch, N, whereby it will be retained.

It is sometimes necessary or more convenient to lift the hook from the top of the car. This may be the case in uncoupling, and for this purpose I carry a chain, P, from the hook C to the top of the car, and I also provide a hook, Q, whereby said chain may be secured to hold the link up.

Having described my invention, what I claim as new is—

1. The draw-head A, provided with the link B and pin D, whereby said link is held, combined with the independent automatic latch C, whereby the link of the opposite draw-head is engaged.

2. The combination, in a draw-head, A, of independent latch C, a link, B, and pin D to hold the same, and an elastic buffer, E, with an incline concave face, as set forth.

3. The crank-winders K, capable of moving

endwise, as shown in Fig. 4, whereby the latch may be lifted by turning the handles up, and a latch, combined with the stationary catch N to hold it up, in the manner set forth.

4. The combination, in a draw-head, of a box or frame, A, a link, B, and holding-pin D for the same, an independent hinged latch, C, with a buffer, E, spring F, and spring-case G, fitted loosely within said draw-head box or frame, substantially as and for the purpose set forth.

THOMAS HARDING.

Witnesses:
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NOAH JUSTICE.