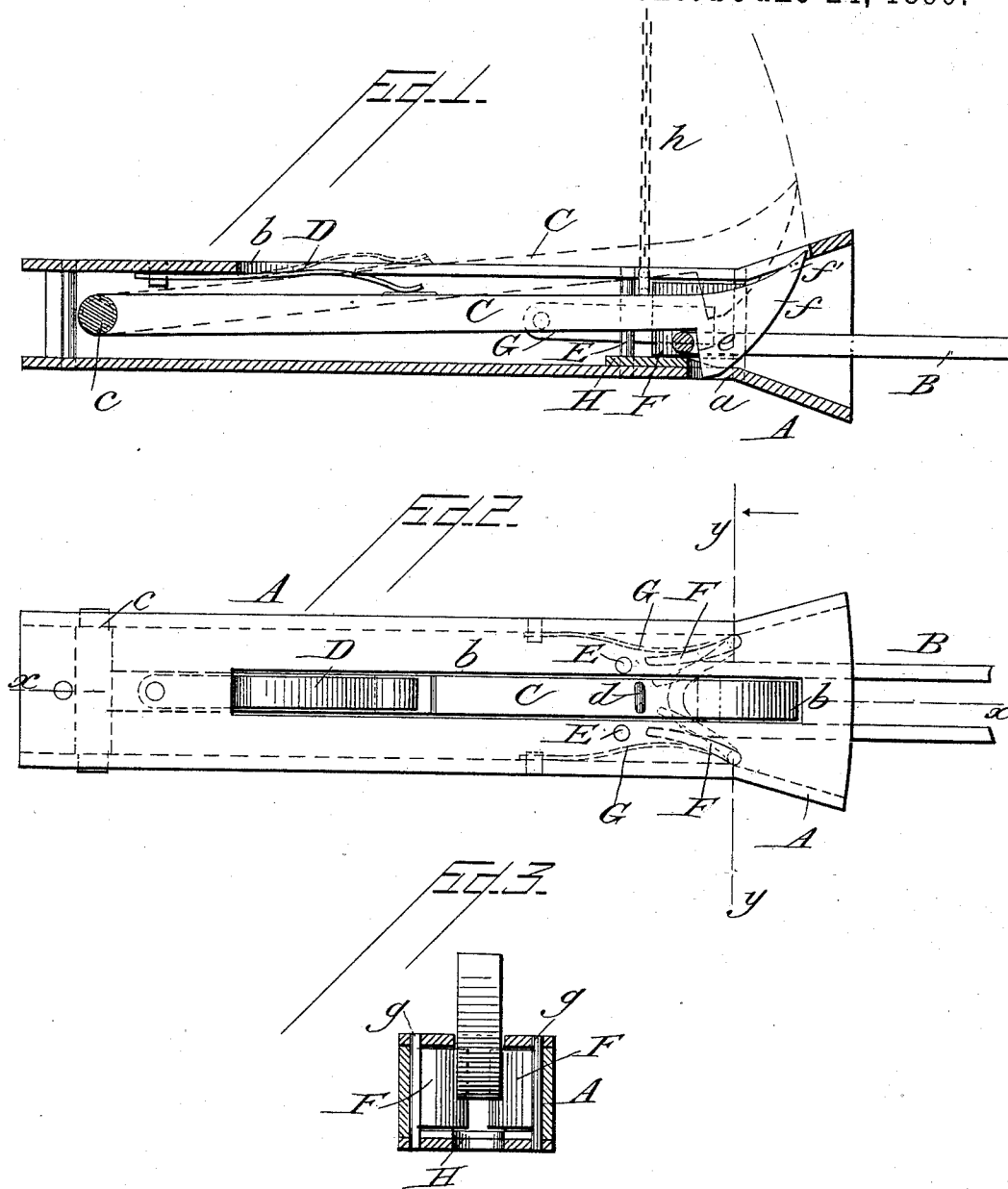


(No Model.)

G. W. WELLER.
CAR COUPLING.

No. 430,904.

Patented June 24, 1890.



Attest:

A. H. Schott
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UNITED STATES PATENT OFFICE.

GILES WALTING WELLER, OF BAKER CITY, OREGON.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 430,904, dated June 24, 1890.

Application filed January 13, 1890. Serial No. 336,770. (No model.)

To all whom it may concern:

Be it known that I, GILES WALTING WELLER, a citizen of the United States, residing at Baker City, in the county of Baker and State of Oregon, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare, the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in car-couplings, its object being to provide a simple, cheap, efficient, and serviceable coupler for connecting cars and similar vehicles; and the invention consists in the construction, arrangement, and combination of parts, substantially as will be hereinafter described, and then more specifically stated in the appended claims.

In the accompanying drawings, illustrating my invention, Figure 1 is a longitudinal section of my improved car-coupler on the line *x x* of Fig. 2. Fig. 2 is a top plan view of the same. Fig. 3 is a cross-sectional end view on the line *y y* of Fig. 2.

Similar letters of reference designate corresponding parts throughout the different figures of the drawings.

A denotes the draw-head, made of any desirable form and shape. This draw-head is hollow to permit the convenient arrangement therein of the several mechanical parts of the coupler.

B denotes the link which I employ in my coupler, which is of the ordinary form.

C designates the latch. It is pivoted at the inner end of the draw-head by means of the horizontal pivot *c*, suitably held in the sides of the draw-head. This latch therefore is adapted to have an up-and-down movement in a vertical plane, as shown in dotted lines in Fig. 1. The outer end of the latch C is provided with the shoulder or projection *e*, the curved face *f*, and the upper point *f'*.

The bottom of the draw-head A is furnished with an opening or aperture *a*, which receives the projection *e* when the latch is in its lowest position, as shown in full lines in Fig. 1. The upper side of the draw-head is provided with a longitudinal slot *b*, through which the latch C emerges partially from the draw-head

during its upward movement, as indicated in dotted lines in Fig. 1. Bearing upon the upper edge of the latch C is a flat spring D, one end of which is securely fastened to the draw-head. This spring by pressing on the latch has a tendency to depress the same and keep it in its lowermost position, and when temporarily elevated by any agency the spring serves to return it to its position within the draw-head.

E E designate vertical pins or posts arranged within the draw-head, one on each side of the latch C. They serve to keep the latch in proper position and prevent it from oscillating sidewise. The latch, furthermore, is provided upon its upper side, near the end, with an eye *d*, to which is connected a chain *h*. This chain passes upward to the car, so as to be in convenient position to be grasped for the purpose of elevating the latch, and thus disengaging the link during the operation of uncoupling.

Within the draw-head, near the outer end thereof, are arranged, one on each side, vertical spring-actuated leaves or plates F F. These are pivotally held by means of the vertical pivots *g g*, which are supported in the draw-head. Upon these leaves or plates bear lateral flat springs G G, which are connected to the sides of the draw-head. These leaves, as will be apparent from an inspection of the drawings, are adapted, under the action of the springs G G, to have their inner or free edges brought into proximity, as shown in Fig. 3, and when in this position they substantially close the draw-head, and are also so placed that they support the latch C in its elevated position, as shown in Fig. 3, the shank of the latch resting upon the upper edges of the spring-actuated lateral leaves. When pressure is exerted upon said leaves from without, they will be swung upon their pivots, their contiguous edges being thus separated from each other, as shown in dotted lines in Fig. 2. The leaves or plates are thus separated, so that an object may pass between them. This separation of the leaves occurs when the link B is brought into contact with them during the operation of coupling. The link strikes the closed leaves, separating them, and thus compressing the flat springs behind them. At the same time that this occurs the

latch C will fall, because its support—to wit, the closed leaves—has been removed from beneath it, and therefore its spring acts to cause it to drop suddenly, and the link B is thereupon engaged by the latch and the coupling is effected.

Adjacent to the opening *a* in the bottom of the draw-head A is a flat re-enforcing plate or strip H, preferably placed upon the bottom of the draw-head, although it may be omitted, if desired. It will thus be seen that the sides of the draw-head, the spring-actuated leaves, and the curved face of the spring-actuated latch present themselves to the link of an adjacent car in such a manner that as the link comes in contact with the inclined faces of the leaves or with the curved face of the latch the operations will take place, as hereinabove indicated, the leaves will be separated, permitting the passage of the link between them, and the supported latch will fall, engaging the link, making a strong and efficient coupling.

When the uncoupling is to take place, the operator, by laying hold of the chain *h*, can lift the latch, disengaging it from the link, thus allowing the leaves F F once more to resume their closed position and permitting the latch to be again superposed upon the closed leaves.

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

1. In a car-coupler, the combination, with

the draw-head, of the pivoted spring-actuated latch and the pivoted spring-actuated leaves, substantially as described.

2. In a car-coupler, the combination of the draw-head having lower opening and upper slot, the pivoted latch with its spring, the lateral leaves or plates, pivoted as described, and the springs acting thereon, and the coupling-link.

3. In a car-coupler, the combination of the draw-head, the pivoted latch C, having projection *e*, the spring D, acting on said latch, and the leaves F F, together with their springs G G, all arranged as specified.

4. In a car-coupler, the combination of the draw-head A, having upper slot *b* and lower opening *a*, the latch C, pivoted at *c*, the spring D, operating in connection with said latch, the lateral leaves F F, pivoted at *g g*, and their springs G G, substantially as specified.

5. The combination of the draw-head A, having slot *b* and an opening *a*, the latch C, having shoulder *e* and curved face *f*, and pivoted at *c*, said latch being provided also with chain *h*, the lateral leaves F F, pivoted as described, the springs G G, acting on said leaves, the guide-posts E E, and the link B.

In testimony whereof I affix my signature in presence of two witnesses.

GILES WAITING WELLER.

Witnesses:

C. A. JOHNS,
CHS. F. HYDE.