(No Model.) 2 Sheets—Sheet 1.

E. H. A. HAUPT.

CAR COUPLING.

No. 306,613. Patented Oct. 14, 1884.

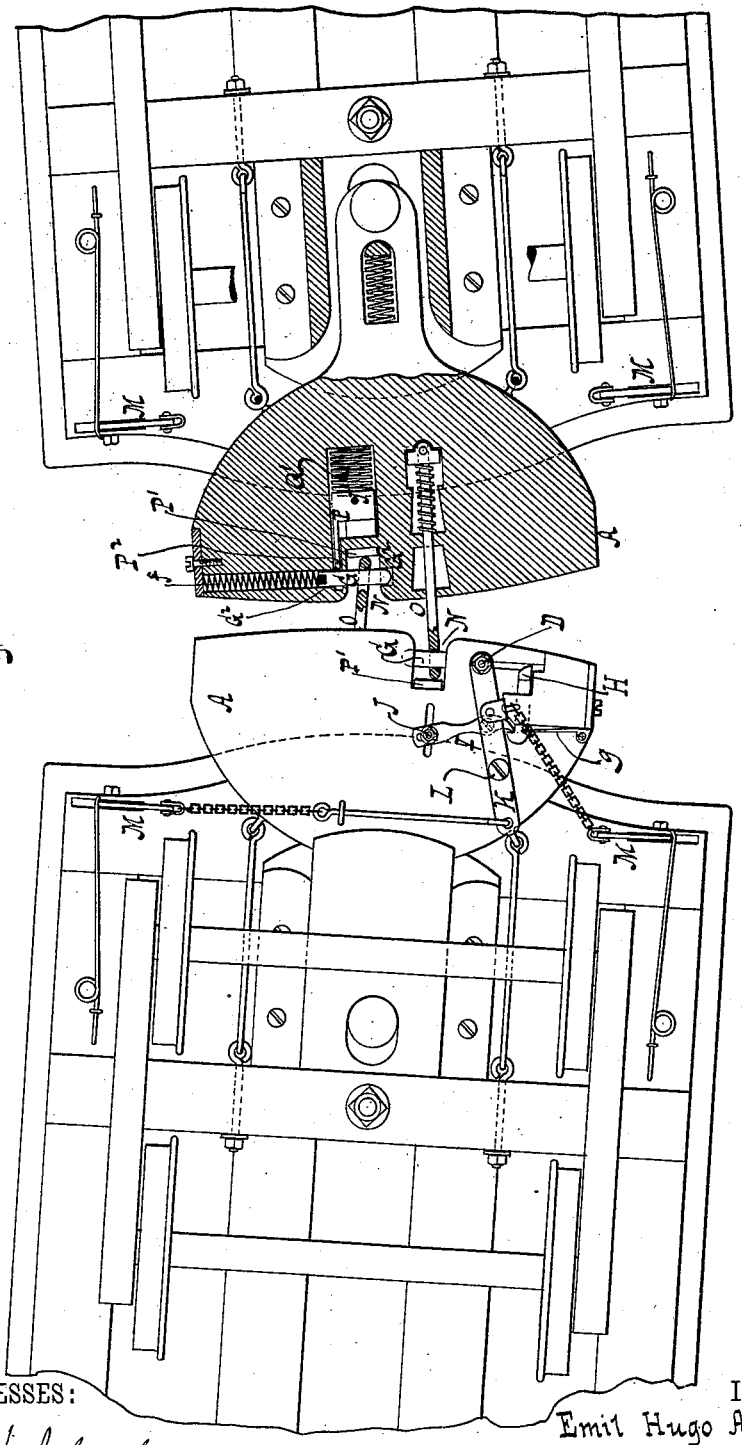

Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

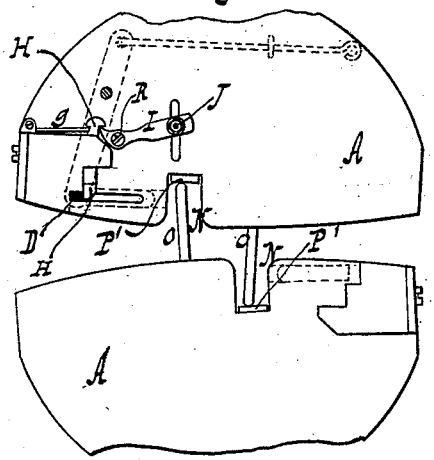
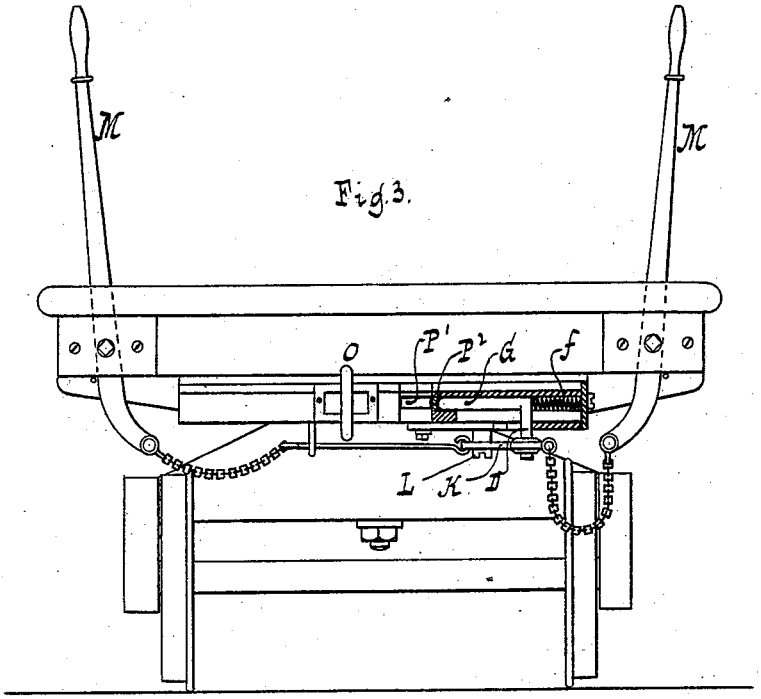


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EMIL HUGO ADOLPH HAUPT, OF DOLGEVILLE, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 306,613, dated October 14, 1884.

Application filed August 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, EMIL HUGO ADOLPH HAUPT, a citizen of the German Empire, residing at Dolgeville, in the county of Herkimer and State of New York, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

The invention relates to certain improvements in the construction of couplings of the kind described in United States Letters Patent No. 298,577, which were granted to me May 13, 1884; and the invention consists in the novel construction and arrangement of parts, hereinafter described, whereby the operation of such couplings is facilitated.

In the accompanying drawings, Figure 1 shows a coupling, partly in inverted plan view and partly in horizontal section, embodying my invention. Fig. 2 shows a similar view to Fig. 1, showing the parts in a different position. Fig. 3 shows an end view of the device, partly in section.

Similar letters indicate corresponding parts.

The letter A designates a draw-head. In a recess or pocket of this draw-head lies the bolt G, which is exposed to the action of a spring, *f*, which has a tendency to force the bolt G from its open position shown in Fig. 2 into its closing or coupling position, which is the position shown in Fig. 1. The bolt G slides in the bolt-passage G^2 in the draw-head A.

O is a coupling link or eye, which is adapted to enter the link-receptacle N in the opposite draw-head A, in which position the bolt G can enter the link O and connect the cars or vehicles, as shown in Fig. 1.

In the draw-head A is a tumbler, P, having a spring, Q', at its back, which spring tends to force the tumbler P forward in its recess or pocket in the draw-head A. This tumbler P is provided with two projections, P' P^2. The projection P', when the tumbler P is forced forward, enters the link-receptacle N, while the projection P^2 slides in a recess in the draw-head A. The bolt G is connected by an arm, D, with a lever, K, having its fulcrum L in the draw-head A. The lever K can be conveniently operated by hand-levers M.

When it is desired to uncouple the cars or vehicles, the bolt G is drawn back against the resistance of the spring *f* by means of the lever K. When the bolt G has reached its open or backward position, it is there held by the catch H. This catch H is beveled in one direction, so that when the arm D of the bolt G in its backward movement strikes against said beveled face of the catch H it forces said catch to slide backward against the resistance of the spring *g* until the arm D has passed sufficiently far back to allow the catch H to be again forced forward by the spring *g*. The straight face of the catch H now lies opposite to the arm D of the bolt G, thus preventing the spring *f* from forcing the bolt G into its closing position. The bolt G is thus held withdrawn from the link O, as seen in Fig. 2.

The catch H, as shown in the drawings, is a tongue sliding in a recess in the draw-head A, and exposed to the action of a spring, *g*, which tends to throw the catch H forward, so as to bring the outer end of said catch H into the path of the arm D of the bolt G when said bolt is moved into and out of its locking position. When the bolt G is moved back and locked in its open position by the catch H, as described, the link O of the opposite draw-head A is free to be drawn out of the link-receptacle N. When now the car or vehicle carrying said opposite link O is drawn away from the draw-head A, the projection P' which before was held back by the opposite link O abutting against it, is now forced forward into the link-receptacle N by the action of the spring Q' on the tumbler P, while at the same time the projection P^2 of the tumbler P is forced forward in its recess so as to close the bolt-passage G^2. It should be noted that the bolt G, when held back by the catch H, lies so far back that its free end is some distance away from the passage of the projection P^2, so that said projection P^2 is free to pass forward and close the bolt-passage G^2.

To the tumbler P is pivoted or connected by a pin or stud, J, one end of a lever, I, swinging on the fulcrum R on the draw-head A. The other end of the lever I engages with the catch H, and when the tumbler P is moved forward by the spring Q' it actuates the lever I so as to draw back the catch H and leave the bolt G free to be moved in the direction of its closing position by the spring *f*. By this time, however, the projection P^2 of the tum-

bler P will have closed the bolt-passage G^2, leaving the bolt G free to be moved by the spring *f* only until the free end of the bolt strikes against the projection P^2. This slight movement of the bolt G carries the bolt and its arm D sufficiently far along to prevent the catch H, if released, from again engaging the arm D, so that the bolt G is held open only by the action of the projection P^2. Upon a link, O, now being pressed into the link-receptacle N of the draw-head A, said link moves the projection P′, and with it the projection P^2, back so as to release the bolt G, which will now be shot into its closing position by the spring *f* and engage the link O, thus coupling the draw-heads A together. By this arrangement it will be seen that when it is desired to uncouple it is only necessary to pull back the bolt G until it is caught by the catch H, when said catch holds the bolt G unlocked until the link O is drawn out of the receptacle N, when the projection P^2 will hold the bolt G unlocked until a link, O, is inserted, whereby the projection P^2 is moved out of the way of the bolt G, and said bolt G is moved into engagement with the link O. When the bolt G is in engagement with a link, both its ends are held in the passage G^2, so that said bolt is not liable to break from the strain of the draft of the link O.

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

1. The combination of the draw-head provided with a spring-impelled bolt, a catch, H, for locking said bolt against the impulse of the spring, and a tumbler, P, provided with means for operating said catch, substantially as set forth.

2. The combination of the draw-head provided with a spring-impelled bolt, a catch, H, for locking said bolt against the impulse of the spring, and a tumbler, P, and lever I, for operating said catch, substantially as set forth.

3. The combination of the draw-head having the mouth or link-receptacle N and bolt-passage G^2, and provided with a spring-impelled bolt, a catch, H, for locking said bolt against the impulse of the spring, and a tumbler, P, having projections P′ P^2, one arranged in the link-receptacle and the other arranged to intersect the bolt-passage, said tumbler being provided with means for operating said catch H, substantially as set forth.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

EMIL HUGO ADOLPH HAUPT. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.