No. 747,768. PATENTED DEC. 22, 1903.

W. REQUARD.

AUTOMATICALLY ACTING ANCHOR CONNECTION FOR UNITING OBJECTS OF EVERY DESCRIPTION.

APPLICATION FILED APR. 2, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1

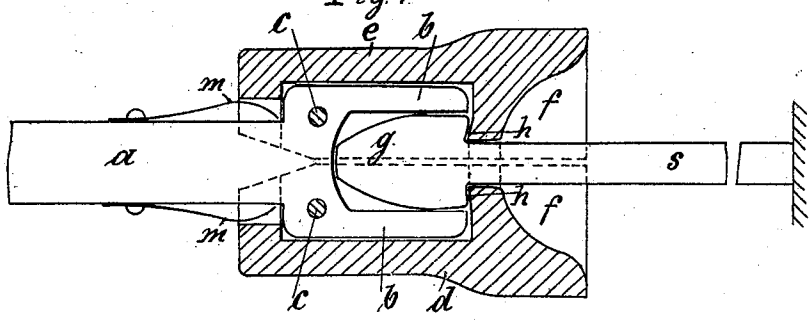


Fig. 2.

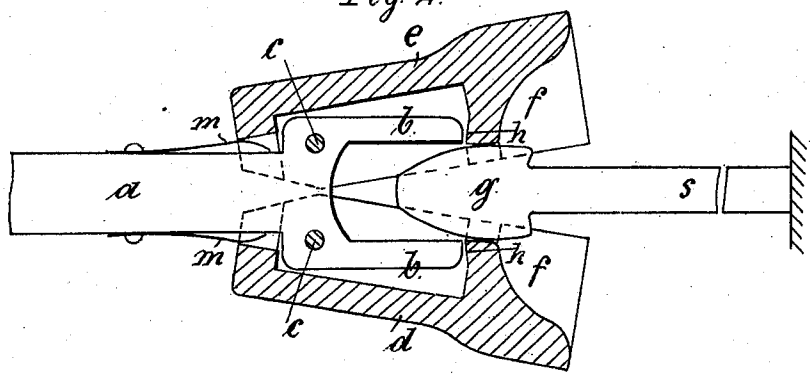
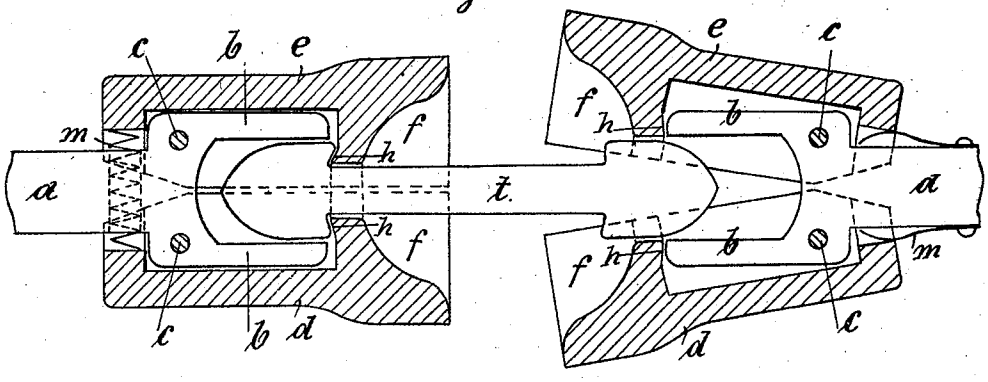


Fig. 5.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

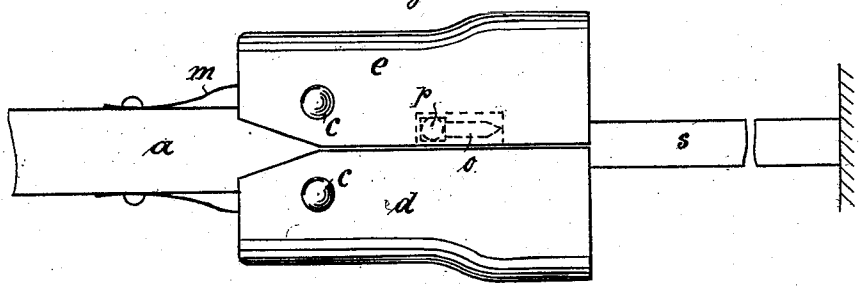


Fig. 4.

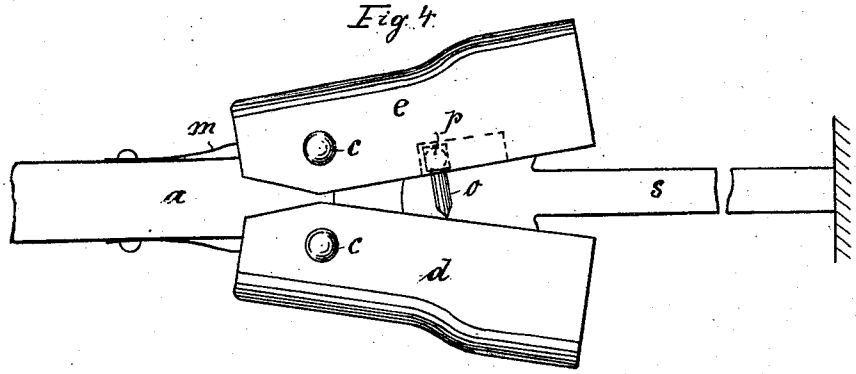


Fig. 6.

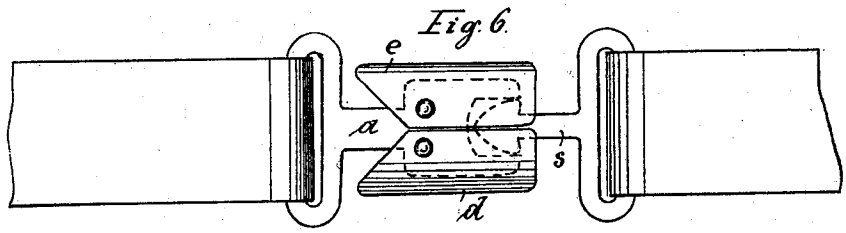


Fig. 7.

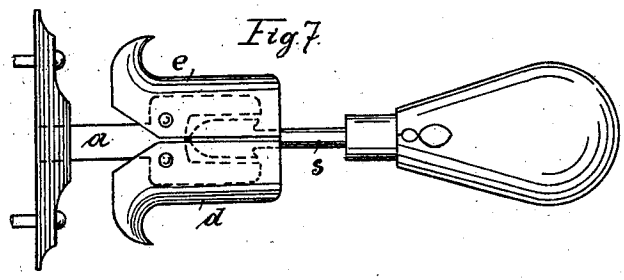
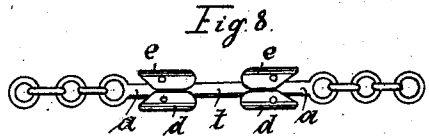


Fig. 8.



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No. 747,768. Patented December 22, 1903.

UNITED STATES PATENT OFFICE.

WILHELM REQUARD, OF KREFELD, GERMANY.

AUTOMATICALLY-ACTING ANCHOR CONNECTION FOR UNITING OBJECTS OF EVERY DESCRIPTION.

SPECIFICATION forming part of Letters Patent No. 747,768, dated December 22, 1903.

Application filed April 2, 1903. Serial No. 150,812. (No model.)

To all whom it may concern:

Be it known that I, WILHELM REQUARD, a subject of the King of Prussia, Emperor of Germany, and a resident of No. 117 Prinz Ferdinandstrasse, in the city of Krefeld, Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Automatically-Acting Anchor Connections for Uniting Objects of Every Description, of which the following is a specification.

The hereinafter-described self-coupler can be used to connect a great variety of objects in an easy, secure, and non-dangerous manner—for instance, railway and street-cars, shafts of vehicles, parts of a harness, chains, straps, belts, military and firemen's tools and outfits, suspenders, holders, and many other objects.

The accompanying drawings show in Figures 1 and 2 sections of the arrangement for coupling carriages with a simple anchor; Figs. 3 and 4, an elevation of the opening device for the same; Fig. 5, a modified arrangement in section, and Figs. 6, 7, and 8, elevations of different modes of using the coupler.

Similar letters refer to similar parts throughout the several views.

The outward shape and the size of the different parts may vary according to the purposes they are to serve.

For carriage-couplings, Figs. 1 to 5, a drawing-rod is united with the carriage-frame, terminating at the other end in a fork *b*. With this fork there are united the jaws *d* and *e*, turning on the bolts *c* and forming when closed a casing, encompassing with the part cut out the legs of the fork and being kept closed at their rear ends, provided with slants, by means of the springs *m*, which may be of any suitable kind. In front these two closing jaws form together a funnel *f*, which leaves an opening free in the center, behind which there have been provided on the inside of the jaws two projections *h*, facing each other. As shown in Figs. 1 and 2, with the other carriage a rod *s* is connected, carrying at its front end an anchor-head *g*, which at given times enters between the jaws in front of it, becomes embedded inside of the fork, and is there firmly retained by the automatically-closing jaws or, more correctly, by the projections *h* on the same.

According to Fig. 5 two pairs of jaws, one pair on each carriage, face each other, and on each carriage there are fixed drawing-rods *a* with forks. The coupling is effected by a loose double anchor *t*, held by one or the other pair of jaws and which enters on the cars being pushed against one another into the opposite jaws.

According to Fig. 6 one of the parts of a chain, belt, strap, or halter to be coupled is provided with the anchor, while the other part carries the fork with the closing jaws.

According to Fig. 7 the fork with the jaws is affixed to a flat back wall, while the glass pear is affixed to the anchor.

According to Fig. 8 a double anchor, as shown in Fig. 5, is used for coupling or affixing chains, belts, or halters.

The jaws may have any outward shape and form, according to the purpose they are to serve, and beside the cases mentioned this locking device can be used in many others.

What is common to all cases is that on the parts provided with the described coupling the point-shaped anchor-head is conducted by the funnel *f* of the jaws to the opening in the center. Its slanting side faces effect a diverging or opening of the jaws, so that the anchor can enter into the fork *b*, whereupon the jaws are closed automatically through the action of the springs and retain the anchor by means of the projections *h*, and thereby prevent a withdrawing of the same, and thus effect the coupling. The anchor-head is now inside of the fork. It cannot therefore touch the jaws and turn them asunder by lateral movements. Whether the anchor-head is to have play room in a longitudinal direction inside of the fork or not depends on what the coupling is to be used for. The fork secures to the anchor-head a safe inlet and outlet and prevents frictions or shocks of any kind, so that the coupling and uncoupling is effected in a smooth manner.

In order to loosen the coupling—in other words, to uncouple or disconnect it—the jaws require to be opened in front to allow of withdrawing the anchor. With small ob-

jects—for instance, those for which the coupling shown in Figs. 6 to 8 is used—a pressure with the hand upon the rear ends of the jaws is sufficient, whereas with couplings of other kinds, accessible only under difficulties and dangers, the opening can take place from a distance, with railroad-cars from the side, with street-cars and other vehicles from the stand of the driver or the seat of the coachman. For this latter purpose there has been arranged in the cut-out or embrasure of one of the jaws, Figs. 3 and 4, a tongue *o*, turning on a bolt *p*, the shaft of which comes out on top. By means of a key put upon this shaft or by means of drawing-rods, chains, and the like affixed to the same the bolt *p* can be turned in such a manner that the tongue *o* is turned and effects the opening of the jaws. On the tongue being turned back, the casing will always be automatically closed.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. In an automatic anchor-coupling for connecting or fastening objects of any kind, the arrangement of a lead fork on one of the parts to be connected in combination with closing jaws, consisting of two parts, encompassing the fork, turning on bolts of the same and being provided in front with a funnel-shaped cavity with an entrance-opening in the center and on the inside with projections adapted to catch behind the anchor-head on its being introduced, and in the rear with springs resting against the rod of the fork, for closing the jaws, also in combination with an anchor arranged on the other part to be coupled, which on being pushed against them, is adapted to open the jaws automatically and to enter into the fork and the casing formed by the jaws in which, on the jaws closing, it is firmly retained, substantially as set forth.

2. In an automatic anchor-coupling for connecting or fastening objects of any kind, and also in combination with a loose double anchor, one head of which is held by one pair of jaws while the other head in its forward movement opens the jaws in front of it, enters into the fork and the casing formed by the jaws, in which, on the jaws closing, it is firmly retained, substantially as set forth.

3. In an automatic anchor-coupling for connecting or fastening objects, the arrangement of a lead fork on one or on both parts to be coupled, in combination with closing jaws, consisting of two parts, encompassing the fork, turning on bolts of the same, provided in front with a funnel-shaped cavity with an entrance-opening in the center, and on the inside with projections to catch behind the anchor-head on the same being introduced and in the rear with springs resting against the rod of the fork for closing the jaws, and also in combination with an anchor affixed to the other part to be coupled, and further in combination with a tongue turning in one of the jaws, the shaft of which can be moved from outside and cause the tongue to turn and thereby open the jaws, substantially as set forth.

4. In an automatic anchor-coupling for connecting or fastening objects, the arrangement of a lead fork on one or on both parts to be coupled, in combination with closing jaws, consisting of two parts, encompassing the fork, turning on bolts of the same, provided in front with a funnel-shaped cavity with an entrance-opening in the center, and on the inside with projections to catch behind the anchor-head on the same being introduced and in the rear with springs resting against the rod of the fork for closing the jaws, and also in combination with a loose double anchor, and further in combination with a tongue turning in one of the jaws, the shaft of which can be moved from outside and cause the tongue to turn and thereby open the jaws, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILHELM REQUARD.

Witnesses:
THEO. C. WIERMORRE,
BRUCE WALLACE.