J. F. McELROY.

CAR HEATING COUPLING.

APPLICATION FILED APR. 20, 1911.

1,023,265. Patented Apr. 16, 1912.

Fig. 1

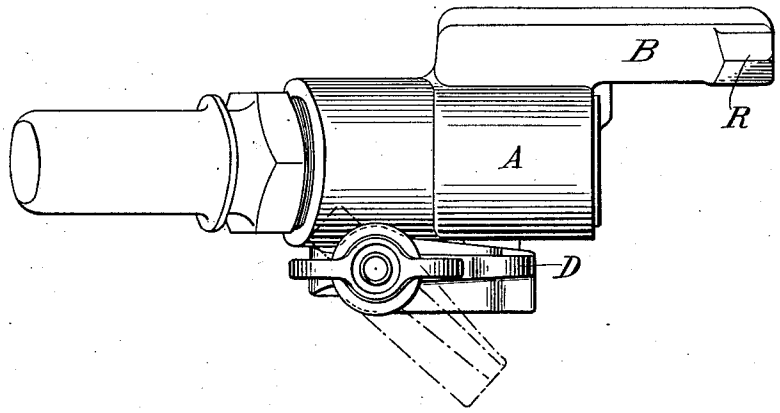
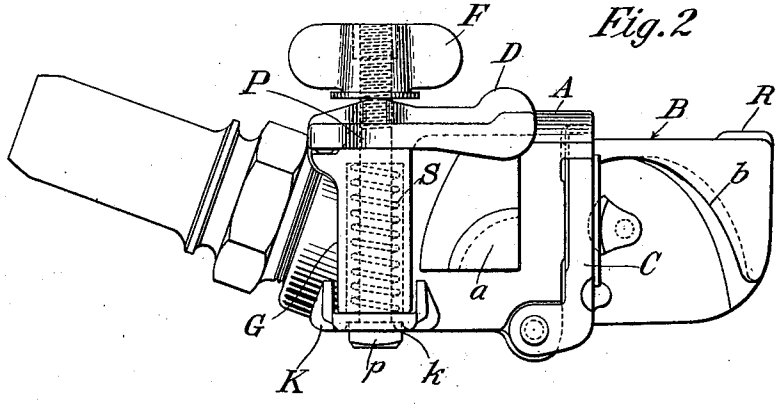


Fig. 2



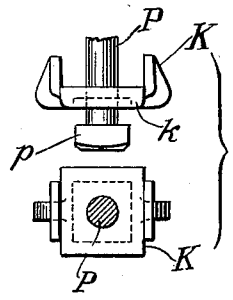


Fig. 3

WITNESSES:

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CAR-HEATING COUPLING.

1,023,265. Specification of Letters Patent. Patented Apr. 16, 1912.

Application filed April 20, 1911. Serial No. 622,199.

To all whom it may concern:

Be it known that I, JAMES F. McELROY, a citizen of the United States, residing at Albany, county of Albany, State of New York, have invented certain new and useful Improvements in Car-Heating Couplers, the following being a full, clear, and exact disclosure of the one form of my invention which I at present deem preferable.

For a detailed description of the present form of my invention, reference may be had to the following specification and to the accompanying drawing, which illustrates my invention.

Figure 1 is a plan. Fig. 2 is a side elevation, and Fig. 3 shows the details of my improved coupler.

My present invention relates to a coupler for connecting steam pipes between cars and consists in an attachment for positively retaining the two parts of a coupler together. The device is particularly useful in cases where the steam pressure is high, as when steam from a locomotive boiler is used to operate a steam engine in the baggage car which drives a dynamo for train lighting.

The coupler is of the well known Sewall type wherein the body of each half coupler has on one side a wing which overlaps the body of the other half when the two parts are abutted together, and has a wedging engagement with a lug thereon.

My improvement resides in a lock attached to the body of each half and arranged to overlie the wing of the opposite half when the two parts are engaged and to be positively secured in that position.

Turning to the drawing, A is the body portion of one coupler half of the well known Sewall type, the other half being a duplicate of the one shown and therefore not illustrated.

B is the side wing which, when the two halves are abutted together, overlaps the body portion of the other coupler half, and has an undercut edge *b* which hooks over and wedges down upon a stud or projection thereon, corresponding to the stud or projection *a* on the half that appears in the drawing.

Near the rear end of body A is a lateral horizontal projection G which is perforated vertically to contain the spring S and form a casing therefor, the spring at its upper end abutting against an internal shoulder in the casing. Resting on the spring casing G is a locking lever D which stands in the position shown in the drawing whenever the two coupler halves are engaged and so overlies the wing of the opposite half, which is supposed to be in position overlapping the body A and thereby prevents the disengagement thereof. The locking lever D is secured in place by a thumb-nut F on a bolt P which passes down through the spring S in casing G, and has its head *p* received in a recess *k* on the under side of a forked clip K, the details of which are shown in Fig. 3. The lower end of spring S rests on the clip K and its two upturned prongs come on either side of the casing G and are adjacent to the side wall of the body A, thereby preventing the bolt P from turning even when it is forced down and away from the lower end of the casing by the spring S when the thumb-nut F is released.

Assuming the lever D to be in its locking position as shown in the drawing and the thumb-nut F to be screwed down hard, it will positively lock the wing of the opposite coupler half in its engaging position. Then to disengage it, it is only necessary to unscrew the thumb-nut a short distance when the lever D can be turned outward, as shown by dotted lines in Fig. 1, although still pressed downward by the spring acting on clip K and the bolt P and the wing locked by the lever is thereby released. The wing carries on its upper corner a beveled projection or tongue R while the under side of the lever D is grooved to receive the said projection whereby any release of the lever is prevented, so long as the nut F is screwed down. The reverse operation puts the lever back in locking position. It will be observed that a lock of this kind will be provided for each part or half of the coupler and the two locks have a dead movement, that is they can be thrown into or out of their locking positions successively and when so thrown will remain in either position leaving both hands of the operator free to afterward disengage the two parts by tilting up the wing tips to free them from the studs *a*, or if he is connecting the couplers, he can first set the locks in position and then screw down the nuts F by a subsequent movement.

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

1. The combination with a coupler com-

prising two abutting parts with overlapping wings, of a lock on one part for the wing of the opposite part, said lock including a bolt and a lever that is movable into or out of locking position, means engaging the bolt for securing the lever in said locking position, and means for preventing rotary movement of the bolt.

2. The combination with a coupler comprising two abutting parts with overlapping wings, of a casing on one part, a bolt therein, a spring in said casing and coiled about said bolt, a lever on the upper end of said bolt for engaging the wing of an abutting part, locking means carried by the bolt for engaging said lever, and a holding clip carried by the lower end of said bolt.

3. The combination with a coupler comprising two abutting parts provided with overlapping wings, of a lock, a bolt on which the lock is movable into or out of locking position, a spring engaging the bolt for holding the lock against its bearings during such movement, and means engaging the bolt for securing the lock in locking position.

4. The combination with a coupler comprising two abutting parts with overlapping wings of a locking lever for the wing of one part mounted on the other part, a bolt on which said lever is mounted, a spring carried by the bolt for holding the lever against its bearings and means engaging the bolt for securing the lever in locking position.

5. The combination with a coupler comprising two abutting parts with overlapping wings of a lock having a dead movement into or out of locking position, said lock including a bolt and a lever, a nut engaging the bolt for securing the lever in said locking position and a holding clip carried by the bolt.

6. The combination with a coupler having two abutting parts with overlapping wings, of a locking lever for one part mounted on the other part, a spring bolt around which said lever swings and a nut on said bolt for locking the lever in its locking position.

7. The combination with a coupler having two abutting parts with overlapping wings, of a lock mounted on one part, a spring bolt for said lock, a nut for securing the lock in locking position and means for preventing the turning of the bolt in its different positions with respect to the coupler.

8. The combination with a coupler having two abutting parts with overlapping wings of a locking lever, a spring bolt therefor, a casing for the bolt, a nut on the bolt for securing the locking lever in locking position and a separable clip on said bolt outside of said casing.

9. The combination with a coupler comprising two abutting parts with overlapping wings of a locking lever, a spring holding the lever to its bearings, a bolt and nut for securing the lever in locking position and a forked clip surrounding said bolt.

10. The combination with a coupler comprising two abutting parts with overlapping wings, of a lock movable into or out of engagement with the opposite wing and having a tongue and groove connection therewith and means for securing the lock in locking position.

11. The combination with a coupler comprising two abutting parts with overlapping wings, of a lock movable into or out of engagement with the opposite wing and having a beveled tongue and groove connection therewith and means for securing the lock in locking position.

12. The combination with a coupler having two abutting parts with overlapping wings, of a rotating lock for one part mounted on the other part, a bolt and nut for said rotating lock, a bearing for the bolt on the part on which it is mounted, and a separable clip engaging the head of the bolt and preventing the rotation thereof.

In witness whereof I have hereunto set my hand, before two subscribing witnesses, this 13 day of April 1911.

JAMES F. McELROY.

Witnesses:

ROBERT McCOCHRANE,

ERNEST D. JANSEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."