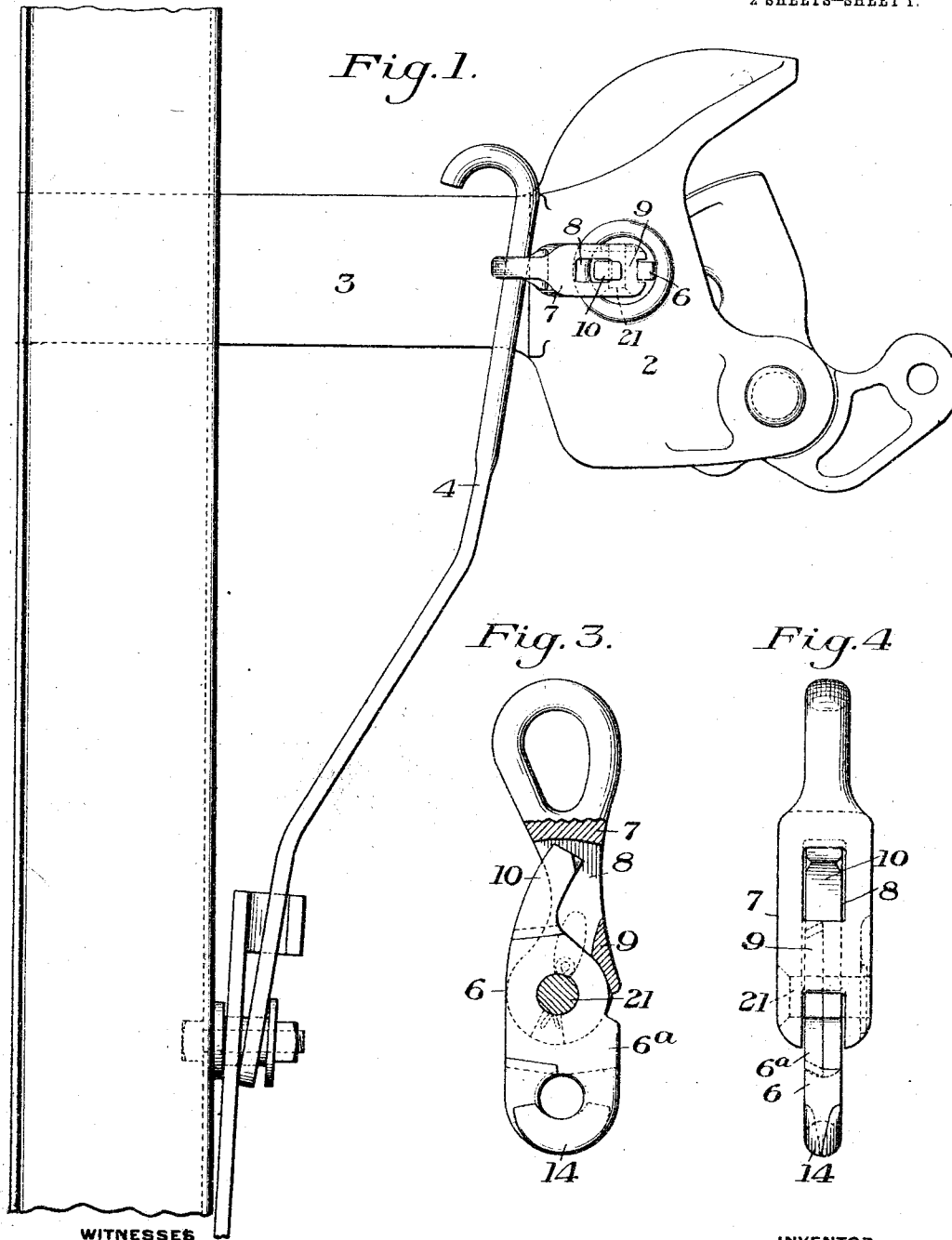


1,052,419.

Patented Feb. 4, 1913.

2 SHEETS—SHEET 1.



WITNESSES

R. A. Balderson
Walter Jamariss

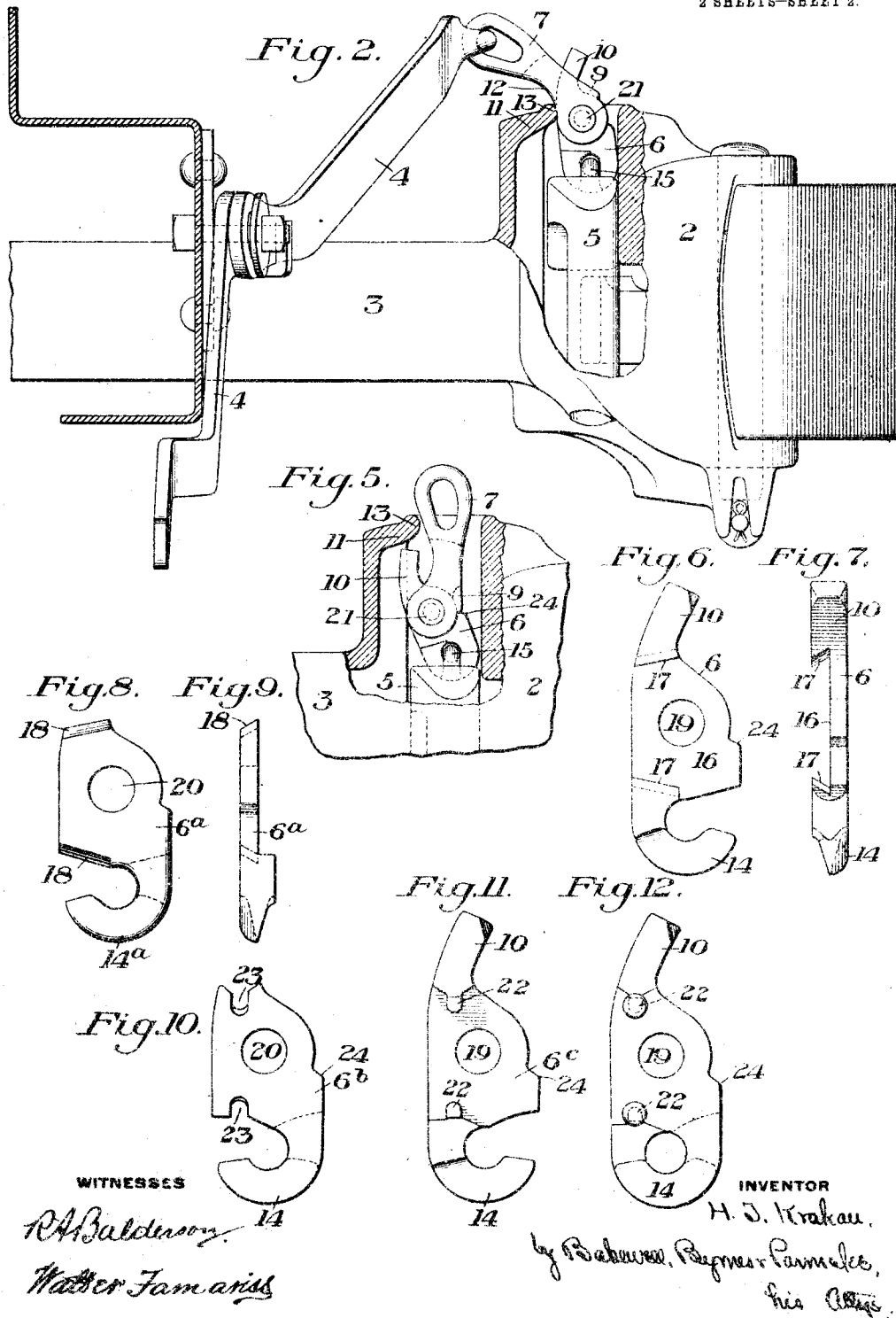
INVENTOR

H. T. Krakau,
by Behner, Rogers, Parmelee,
his Attys

1,052,419.

Patented Feb. 4, 1913.

2 SHEETS-SHEET 2.



UNITED STATES PATENT OFFICE.

HARRY T. KRAKAU, OF CLEVELAND, OHIO, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

CAR-COUPLING.

1,052,419.

Specification of Letters Patent.

Patented Feb. 4, 1913.

Application filed November 16, 1909. Serial No. 528,337.

To all whom it may concern:

Be it known that I, HARRY T. KRAKAU, a citizen of the United States, and a resident of Cleveland, Cuyahoga county, Ohio, have invented a new and useful Improvement in Car-Couplers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view showing a coupler embodying my invention with the coupler drawn out to an abnormal position; Fig. 2 is a side view of the same partly in section and partly broken away, and showing the coupler locking member raised; Figs. 3 and 4 are detail views of the link and clevis; Fig. 5 is a detail view partly broken away showing the locking member in locked position; Figs. 6 and 7 are side and edge views respectively of one of the members of the link; Figs. 8 and 9 are similar views of the other member of the link; Figs. 10 and 11 are side views of the members of a modified form of link; and Fig. 12 is a side view of the complete modified form of link.

My invention has relation to car couplers of the top-opening type, having a vertically movable locking member, which is designed to be raised to release the knuckle to effect an uncoupling.

It has been customary heretofore to attach to the locking member a lifting link, which, in the locking position of said member would swing backwardly underneath a portion of the top wall of the coupler head and thus securely lock the locking member in its locked position. This link has been connected by a clevis with an uncoupling rod or lever adapted to be actuated to effect the uncoupling and also to be automatically operated in case the draft rigging should break and the coupler pull out, to raise the locking member and release the coupler. Some difficulty has been experienced, however, by reason of a too rigid connection between the clevis and the link, so that as the coupler pulled out the clevis would not act properly to raise the lock, but the clevis and link would bind in the coupler head. This caused the uncoupling connection to be broken and the coupler to drop on the track.

The object of my invention is to provide a clevis and link so constructed and arranged that in case of breakage, the difficulty above referred to will be obviated,

and the locking member will in all cases be raised to release the coupler and prevent it from being entirely pulled out and dropping on the track.

A further object of my invention is, to provide a link of novel construction which can be readily connected to and disconnected from the locking member.

The nature of my invention will be best understood by reference to the accompanying drawings, which will now be described, it being premised, however, that various changes may be made in the details of construction and arrangement of the parts without departing from the spirit and scope of my invention as defined in the appended claims.

In these drawings, the numeral 2 designates a coupler head, 3 the coupler shank, and 4 an uncoupling rod or lever of well known type.

5 is the vertically movable coupler locking member, also of well known type, and to which is connected the lifting link 6.

7 is the clevis which connects this link to the arm of the uncoupling rod or lever 4. The clevis 7 is formed with a slot 8, which extends entirely through its lower portion, except for the provision of a stop wall 9. The link 6 has a reduced upward extension 10, which fits under the top wall 11 of the coupler head when the lock is in locked position, as shown in Fig. 5, thus retaining the lock in that position until the operating lever is raised. This upward extension is reduced in order to pass through the slot 8 of the clevis, when the clevis is pulled in a rearward direction, as shown in Fig. 2, the clevis being prevented from falling over into a completely horizontal position by the stop wall 9. This stop-wall 9 also coacts with the ledge or shoulder 24 on the link, as shown in Fig. 5, to prevent the upper end of the link from falling too far backward when the parts are in locking position. By constructing and connecting the parts in this manner, the clevis 7 will pull backwardly when the coupler is drawn out beyond its proper limit, due to some accident to its attachments, as illustrated in Figs. 1 and 2, and will raise the link 6 sufficiently high to unlock the coupler as shown in Fig. 2 and release it from the adjacent coupler without pulling it completely out of the car and permitting it to drop on the track.

The rear edge of the clevis is cut away or curved, as shown at 12 so as to take a fulcrum bearing upon the edge 13 of the top wall of the coupling, the latter acting as a fulcrum to facilitate the lifting action on the link 6. This curved edge of the clevis also slides freely over the edge 13 of the coupler wall, and prevents any tendency to bind.

10 The link 6 is made in two pieces 6 and 6^a, as more clearly shown in Figs. 6, 7, 8 and 9. The piece 6 carries the reduced upward extension 10, and also a hook portion 14 at the lower end, which forms one-half of the loop or eye which engages the eye 15 on the coupler lock. Said member is also formed with the recessed portion 16 having dovetail or undercut walls 17. The member 6^a carries the complementary eye or loop-forming portion 14^a, and its body portion has the bevel edges 18 which fit the undercut walls 17 of the recess 16 of the member 6. The members 6 and 6^a are formed with the registering perforations 19 and 20 for the pin 21 which pivotally connects the link to the clevis. When the parts are fitted together and engage with the clevis, and the clevis pin is passed through these registering holes, the parts of the link are held securely together so as to perform their function as one piece, the hook portions 14 and 14^a interfitting with each other to form a completely closed eye or loop for engagement with the eye of the lock.

35 The advantage of making the link in two pieces is that it facilitates the connection between the link and the lock. Thus, in putting new locks in the coupler, it is very easy to remove the clevis and pin and take the link from the lock without destroying its usefulness, since it can be re-attached to the new lock. Also, in shipping locks for repairs it is unnecessary for the manufacturer to know whether the lock is to be used with a top-opening coupler or a bottom-opening coupler, since it is not necessary to ship the lock with the link welded into it in case a top-opening coupler is used; but the lock can be shipped and the railroad can apply it to either a top-opening coupler or a bottom-opening coupler as they may require.

In the modification shown in Figs. 10, 11 and 12, the two members 6^b and 6^c of the link, instead of being provided with the interfitting dovetail portions, are secured together by means of studs or projections 22 on the member 6^c, which engage recesses 23 on the member 6^b. After the parts are put together the studs or projections are hammered down to fill these recesses and thus prevent the two parts from coming apart except as they may be forced apart with a tool. This form is not quite as desirable as that first described, because the further usefulness of the two parts is somewhat decreased after they have been forced apart.

The advantages of my invention will be apparent to those skilled in the art. The construction and arrangement of the clevis and link is such as to insure the automatic release of the lock in case of accident to the coupler attachments; and the links and clevises can be quickly assembled and connected to the lock.

It will be obvious that the form and construction of the link may be modified in various ways, and that changes may be made in the form of the clevis, without departing from the spirit and scope of my invention.

What I claim is:—

1. In a car coupler, a lock-lifting link having an eye therein, a portion of said eye being formed by a detachable section of the link; substantially as described.

2. In a car coupler, a lock-lifting link formed in two sections having interfitting portions, and means for detachably securing said sections to each other; substantially as described.

3. In a car coupler, a lock-lifting link formed in two sections detachably secured together, said sections having complementary portions which together form an eye or loop for engagement with the coupler lock; substantially as described.

In testimony whereof, I have hereunto set my hand.

HARRY T. KRAKAU.

Witnesses:

CHESTER K. BROOKS,
HARRY E. ORR.