

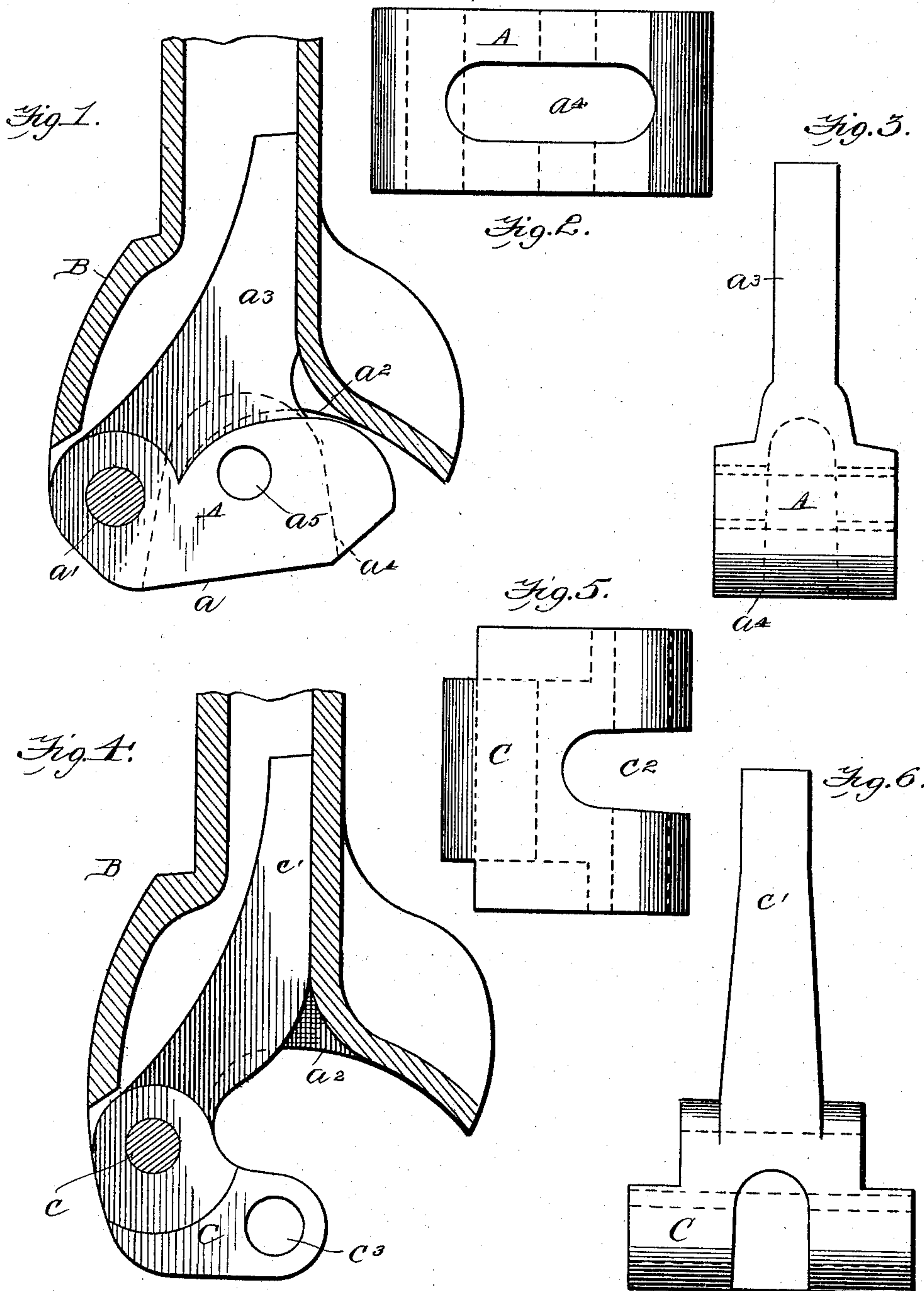
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Patented Aug. 16, 1898.

G. H. GILMAN & J. H. BROWN.
EMERGENCY KNUCKLE FOR CAR COUPLINGS.

(No Model.)

(Application filed Mar. 17, 1898.)



WITNESSES

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EMERGENCY-KNUCKLE FOR CAR-COUPPLINGS.

SPECIFICATION forming part of Letters Patent No. 609,095, dated August 16, 1898.

Application filed March 17, 1898. Serial No. 674,249. (No model.)

To all whom it may concern:

Be it known that we, GEORGE HENRY GILMAN and JAMES HENRY BROWN, citizens of the United States, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Emergency-Knuckles for Car-Couplings; and we 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.

Our invention relates to improvements in buffers for car-couplings, and particularly to buffers that are adapted to be used as emergency-buffers in the case of injury to the original knuckle of the coupler.

It consists in providing a buffer with a rearwardly-extending shank adapted to engage the body portion of a coupler and a head portion for forming a buffer to receive the impact of a car or train.

It also consists in providing an emergency-buffer adapted to be secured in the body of a coupler by means of pivoting-pins and in providing the said buffer with a buffing-head portion and a rearwardly-extending shank adapted to extend into the body portion of the coupler to hold the buffer in position.

It also consists in certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents a horizontal sectional view through the body portion of a coupler, showing our improved emergency-buffer in top plan view. Fig. 2 represents a front end elevation of the buffer, showing the link-receiving opening formed therein. Fig. 3 represents a side elevation of the said buffer. Fig. 4 represents a horizontal section through the body of the coupler, showing a slightly-different form of emergency-buffer mounted therein. Fig. 5 shows an end elevation of this form of buffer, and Fig. 6 shows a side elevation of the same.

In using couplings it often happens that the knuckles become broken or otherwise rendered unfit for service, and in order not to delay the traffic or travel it is desirable to have some means for rendering the coupling

capable of holding the cars together until the broken knuckle can be replaced or mended. It is for such emergencies as this that our improved buffer is adapted.

As shown in the drawings, our improved buffer is particularly adapted to vertical-plane couplers of the standard Master Car-Builders' Association type.

A in the drawings represents our improved buffer, and B the body of the coupler. The buffer A is formed with a broad head portion, as at a , the said head being adapted to fit between pivoting-lugs formed on the body of the coupler and being provided with a pivot-hole, as at a' , to receive the pivot-pin which holds the ordinary knuckle in position. The rear contour of the head portion A is preferably made of such a shape as to fit against the front surface of the body of the coupler, as at a^2 . This broad head portion, fitting against the body of the coupler, provides a buffer to receive the shock resultant from use in general service as a car-coupler and protects the faces and edges of the coupler to which it is applied. In order to further hold the buffer in position, a rearwardly-extending stem portion, as a^3 , is formed, which is adapted to extend into the hollow body portion of the coupler B. This prevents the buffer swinging out of place upon the pivot-pin. In the front face or end of the buffer a recess, as a^4 , is formed, which is made of suitable depth to receive a link for connecting two cars together, and pin-holes, as a^5 , are formed to receive a coupling-pin of the ordinary type.

It will be evident from this description that when the ordinary knuckle becomes disabled or broken it may be quickly taken out of the coupler and the emergency-buffer may be inserted and secured in place by the pivot-pin, when the coupler can be used as an ordinary link-and-pin coupler until a proper place is reached where the original knuckle may be replaced or mended.

As shown in Fig. 4 of the drawings, it may be desirable to make an emergency-buffer which shall have more nearly the contour of the ordinary knuckle in common use.

As seen in Figs. 4, 5, and 6, the buffer C is adapted to be mounted in the body of the coupler by means of a pivot-pin c and is pro-

vided with a rearwardly-extending stem, as c' , which is adapted to extend into the hollow body portion of the coupler. The forward portion of the buffer is formed with a broadened attaching portion, which is constructed, preferably, in the same shape as the corresponding portion of the ordinary knuckle in use. It is also provided with a recess, as at c^2 , to receive a link, and pin-holes, as at c^3 , to receive a coupling-pin.

It will be apparent that an emergency-buffer of this character may be used in connection with a coupler having a knuckle on the next adjoining car, or it may be connected with the said car by means of a link and pin, as may be desired.

A buffer as above described is interchangeable with knuckles of all vertical-plane couplers and will form an emergency-coupling to be used in case the knuckle of the car-coupler be broken or otherwise rendered unfit for service and which will, for the time being, transform the coupler into a link-and-pin coupler.

Our invention will also serve to provide against the danger of trains breaking at the points where the knuckles have become strained or weakened from any cause and the further destruction of the coupler-body.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A buffer adapted to take the place of the ordinary knuckle in a car-coupling, the said buffer comprising a head portion forming a buffer proper and having an attaching portion for receiving the pivot-pin of the coupling for holding it in place and a stem adapted to extend into the body portion of the coupler whereby the said buffer is substantially prevented from rotating upon the said pivot-pin, substantially as described.

2. An emergency-buffer comprising a head

portion adapted to be mounted in a coupler by means of its pivot-pin, the rear contour of said head portion being adapted to rest against the front surface of the body portion of the coupler for protecting the faces and edges thereof and a stem adapted to engage the interior of the body portion of the coupler for substantially preventing the rotation of the buffer on the pivot-pin, substantially as described.

3. An emergency-buffer comprising a head portion forming a buffer proper and having a recess formed in the said head portion to receive a link and apertures to receive a coupling-pin and a stem adapted to extend some distance into the body of the coupler whereby the buffer is substantially prevented from having a swinging movement upon the pivot-pin, the construction being such that the buffer can be inserted in the place of a broken or disabled knuckle and held in place by means of the pivot-pin of the coupler, substantially as described.

4. An emergency-buffer comprising a perforated portion adapted to be engaged by the pivot-pin of an ordinary coupler, a head portion forming a buffer proper extending from the pivot-receiving portion in front of the end of the coupling and adapted to rest against the front face thereof for protecting the faces and edges of the coupler and a rearwardly-extending stem engaging the body portion of the coupler whereby the said buffer is substantially locked against any swinging movement, substantially as described.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

GEORGE HENRY GILMAN.
JAMES HENRY BROWN.

Witnesses:

THOS. ELDRED,
FRANK J. MILLER.