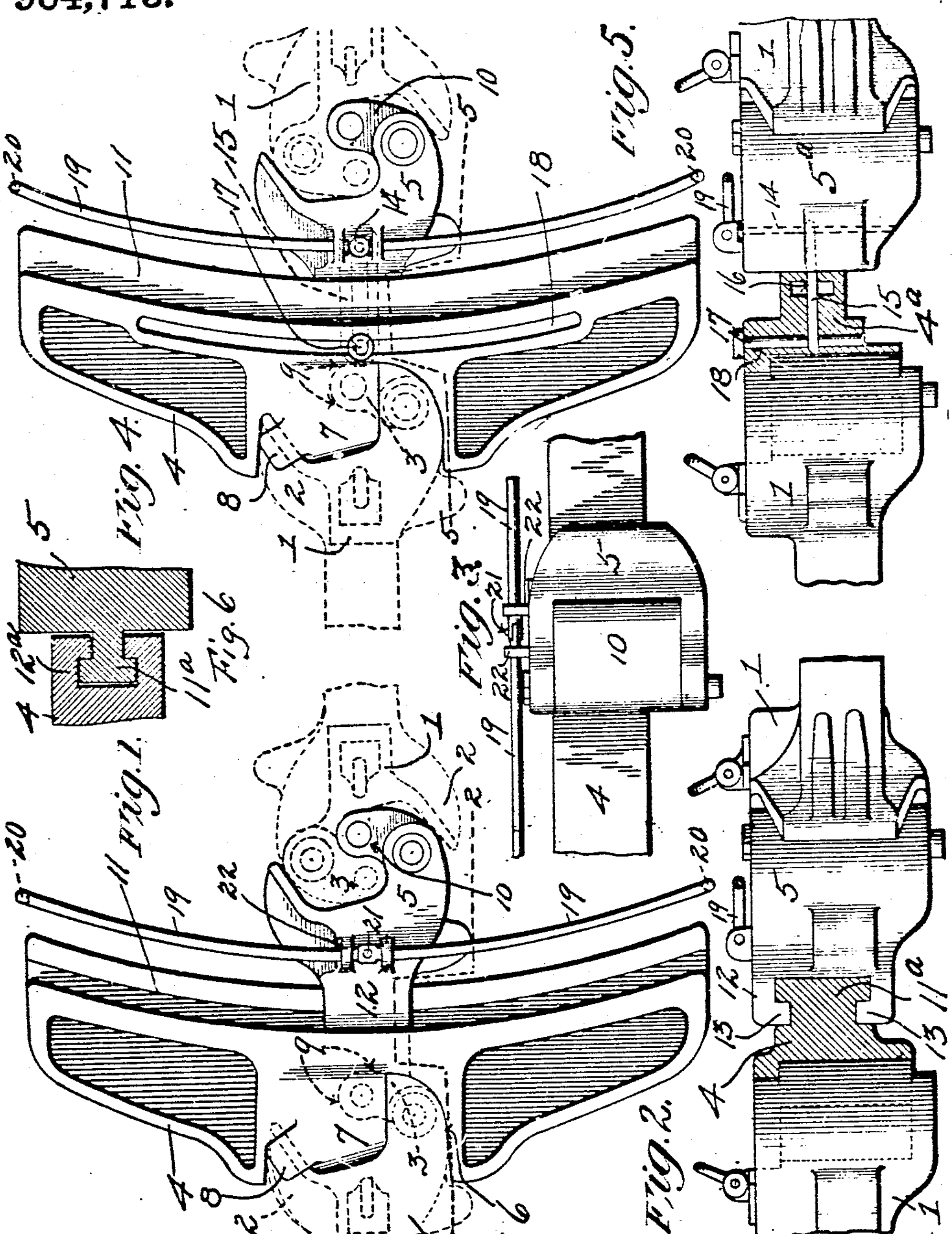
J. E. ULSH & D. T. GOODMAN.

AUXILIARY CAR COUPLING.

APPLICATION FILED OCT. 9, 1907.

964,713. Patented July 19, 1910.



WITNESSES:

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AUXILIARY CAR-COUPLING.

964,713. Specification of Letters Patent. Patented July 19, 1910.

Application filed October 9, 1907. Serial No. 396,630.

To all whom it may concern:

Be it known that we, JOSEPH E. ULSH and DAVID T. GOODMAN, citizens of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Auxiliary Car-Couplings, of which the following is a specification.

This invention relates to that type of car couplings termed auxiliary car couplings, and which are designed to facilitate the coupling of two cars on short curves, particularly those located in railroad yards.

To this end the invention contemplates a simple and practical construction of auxiliary car coupling designed for use in connection with the ordinary or conventional car coupling heads in common use, and comprising means for permitting a coupling to be effected between opposing coupling heads where the latter are disalined by reason of the curve in the track. Furthermore, the improved auxiliary coupling is so constructed as to provide for an extensive shifting or adjustment of the auxiliary coupling head so as to accommodate the same to widely varying conditions.

A further object of the invention is to provide a construction of auxiliary coupler which makes automatic coupling with the regular coupling heads, thereby greatly increasing the factor of safety to train hands. Also the improved construction is of such a character that the same possesses utility both in pulling and pushing a coupled car.

With these and other objects in view, which will readily appear to those familiar with the art, the invention consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

Certain preferred embodiments of the invention are shown in the accompanying drawings, in which,

Figure 1 is a plan view of an auxiliary car coupling device, illustrating by dotted lines its use in coupling oppositely located ordinary coupling heads. Fig. 2 is a sectional view on the line 2—2 of Fig. 1. Fig. 3 is a front view of the auxiliary coupling head shown in Fig. 1, the view illustrating a short section of the supporting shoe upon which said head is slidably mounted. Fig. 4 is a view similar to Fig. 1, showing a modified mounting for the auxiliary coupling head. Fig. 5 is a view similar to Fig. 2, but taken on the line 5—5 of Fig. 4. Fig. 6 is a detail of a further modification.

Like references designate corresponding parts in the several figures of the drawings.

In carrying out the present invention no change is required or contemplated in the construction of the ordinary car couplings in common use on railway cars, hence for illustrative purposes there are shown by dotted lines in Figs. 1 and 4 of the drawing the ordinary car coupling heads 1—1, and for illustrative purposes these heads are shown as of the conventional automatic type, each of the same embodying in its construction the usual rigid guard arm 2 and the coupling knuckle 3, the functions of which are well understood.

The improved auxiliary coupling device is designed to occupy a position between the two ordinary heads 1 which it is to couple, and referring particularly to the drawings it will be observed that the said auxiliary coupling device includes in its organization a main supporting shoe 4, this supporting shoe being of an oblong form and usually consisting of a single casting having an approximate crescent shape so as to present a curved front side upon which the auxiliary coupling head 5 is mounted. The said supporting shoe 4 is designed to be itself rigidly supported and carried by one of the ordinary or regular coupling heads 1 and to provide for this the shoe 4 is constructed at the rear side thereof with an approximately U-shaped coupler seat designated by the numeral 6 and designed to receive therein practically the entire front end of the regular coupling head 1, so as to embrace not only the knuckle 3 and the knuckle pivotal support, but also the guard arm 2. In addition to the said seat 6 the body portion of the shoe 4 is further provided at its rear side with a holding block 7 fitting in the mouth of the coupling head 1 and provided with a laterally extending retaining arm 8 taking over the guard arm 2 of the head 1, and also provided in one side thereof with a keeper socket 9 which receives therein the knuckle 3 of the head 1. This construction provides for properly positioning the shoe 4 and also rigidly holding it in place.

The auxiliary coupling head 5 is of the conventional form so as to automatically couple with the opposing regular coupling

head 1, but it will, of course, be understood that the coupling knuckle 10 of the auxiliary head 5 is preferably rigid.

It is the purpose of the present invention to provide for the lateral shifting of the auxiliary head 5 so that it may be adjusted anywhere between the opposite ends of the shoe 4, and to provide for this there is an interlocked sliding connection between the auxiliary head and the said shoe. This connection may be provided in various ways. For instance, as shown in Figs. 1 and 2 of the drawing, the front side of the shoe may be formed with a T-shaped guide rib 11 with which is slidably interlocked a C-yoke 12 carried by the shank or body of the auxiliary coupling head 5, said yoke having its inturned flanges 13 sliding in the groove provided by the T-shape of the rib 11. Or, as shown in Figs. 4 and 5 of the drawings, the coupling head 5ª may be fitted at its rear side with a coupling pin 14 loosely engaged by one end of the coupling link 15 projecting through a horizontal guide slot 16 in the supporting shoe 4ª and loosely connected at its inner end to a slide pin 17 which slidably works in a vertically arranged guide slot 18 formed in the body of the shoe back of the front guide rib 11ª thereof. Again, as shown in detail Fig. 6 of the drawings, the interlocked connection between the auxiliary head and the shoe may be effected by providing the front side of the shoe with a C-yoke 12ª with which is slidably interlocked the T-shaped rib 11ª, as plainly shown in Fig. 6 of the drawings.

The lateral shifting or adjustment of the auxiliary coupling head may be conveniently accomplished by equipping the head with the oppositely arranged shifting rods 19—19 provided at their outer ends with handles 20 and having their inner ends coupled as at 21, as shown in Figs. 1 and 3, or simply headed in the holding lugs 22 provided therefor on the upper side of the auxiliary coupling head, as shown in Fig. 4 of the drawings.

We claim:—

1. In an auxiliary car coupling, the combination with a main car coupling head, a separate supporting shoe of an approximately crescent shape and having holding means for engagement with said main coupling head, said shoe being further provided with a longitudinally arranged guide, an auxiliary shiftable coupling head loosely interlocked directly with the guide of the supporting shoe and slidable lengthwise of the shoe within the concaved side thereof and oppositely located shifting connections with said auxiliary coupling head.

2. In an auxiliary car coupling, the combination with a main car coupling head, of a separate approximately crescent shaped supporting shoe having at its rear side a coupler seat and a holding block provided with a laterally extending retaining arm adapted to overlie the guard arm of the main coupling head, said shoe being further provided in one side with a keeper socket to receive the knuckle of the main coupling head, and a shiftable auxiliary coupler head carried by the shoe and slidable within the concaved side thereof.

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

JOSEPH E. ULSH.
DAVID T. GOODMAN.

Witnesses:
NORMAN E. GEE,
D. LLOYD CLAYCOMB.