I. H. MILLIKEN.

COUPLING.

APPLICATION FILED JULY 24, 1911.

1,021,423. Patented Mar. 26, 1912.

Fig. 1.

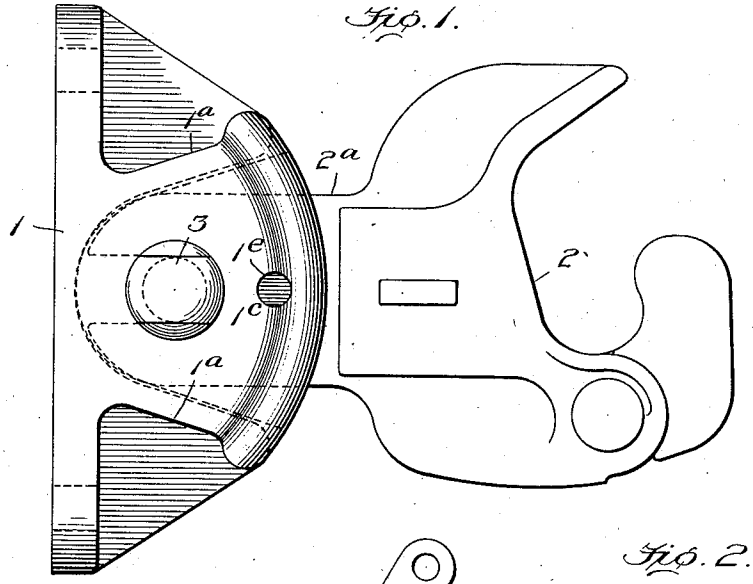


Fig. 2.

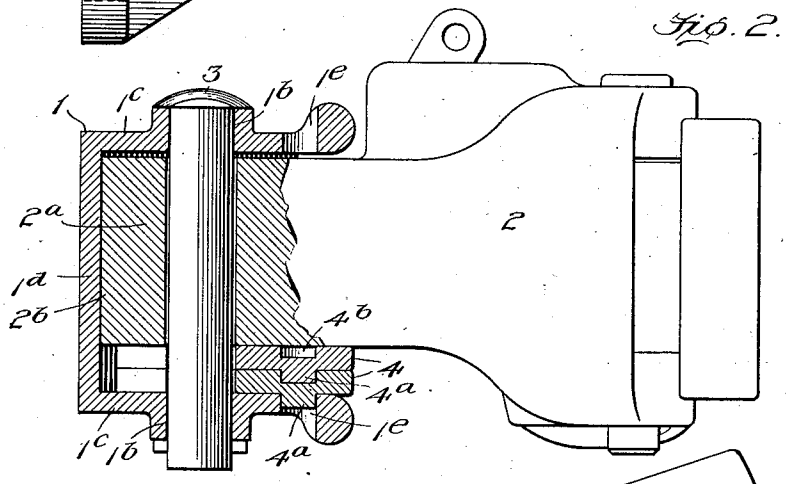


Fig. 3.

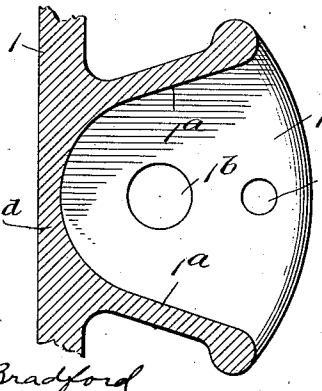


Fig. 4.

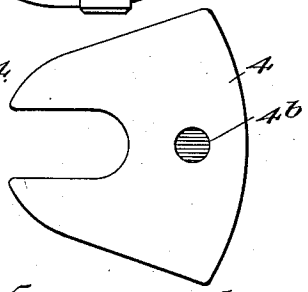
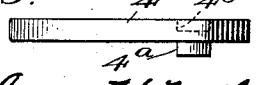


Fig. 5.



Witnesses

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COUPLING.

1,021,423. Specification of Letters Patent. **Patented Mar. 26, 1912.**

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To all whom it may concern:

Be it known that I, ISAAC H. MILLIKEN, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Couplings; and I 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.

My invention relates to the construction of car couplings and particularly to that class of couplings which are primarily designed to be employed upon locomotive tenders; and its object is to afford a simple, durable and efficient structure of this type in which the height of the coupler above the rail may be readily adjusted to compensate for wear of tires, weakening of springs, and other causes operating to let the coupler approach the rails closer than is allowable. Generally described, these several objects are effected by pivotally connecting the shank of the coupler to a bracket member which is adapted to be secured to the end sill of the tender, the bracket being formed with a forwardly projecting flaring socket which receives the coupler shank and permits the coupler to swing laterally upon its pivot pin, and the height of the coupler above the rails being controlled by the arrangement within the socket of adjusting plates which are adapted to interlock with each other and which are maintained in proper position within the socket by an interlocking engagement of one of them with said bracket; and such a construction embodies the principal feature of my invention.

There are other features of invention, residing in certain novel constructions and novel combinations of elements, all as will hereinafter more fully appear.

In the drawings chosen for the purpose of illustrating my invention, the scope whereof is pointed out in the claims, Figure 1 is a plan view of a tender coupler embodying my invention; Fig. 2 is a vertical central section of the construction shown in Fig. 1; Fig. 3 is a detail horizontal section of the coupler supporting bracket; Fig. 4 is a detail plan view of one of the adjusting plates; and Fig. 5 is a detail side elevation of one of the adjusting plates.

Like symbols refer to like parts wherever they occur.

I will now proceed to describe my invention more fully, so that others skilled in the art to which it appertains may apply the same.

In the drawings, 1 is the coupler supporting bracket by means of which the coupler is mounted upon the beam or sill of the locomotive or tender. The bracket is formed with an outwardly projecting socket which is adapted to receive the shank 2^a of the coupler 2, the lateral walls 1^a of the socket being divergent outwardly so as to permit the coupler to swing laterally on a pivot pin 3 which passes through vertically alined pivot pin openings 1^b formed in the upper and lower horizontal walls 1^c of the socket. The inner face 1^d of the socket is cylindrically curved to form a bearing for the correspondingly curved end 2^b of the coupler shank, these cylindrical faces having their axes of curvature coincident with the axes of the pivot pin openings 1^b of the bracket and 2^c of the coupler shank, respectively.

The adjusting plates 4 by which the vertical height of the coupler 2 with respect to the bracket 1 is regulated are each provided upon one face with a centrally located dowel or lug 4^a and upon the other face are formed with a correspondingly shaped socket or recess 4^b into which the dowel of the adjacent adjusting plate 4 is adapted to fit so as to cause one plate to interlock with another. The upper and lower walls of the socket portion of the bracket 1 are also provided with centrally located apertures or recesses 1^e which are adapted to receive the dowels 4^a of the adjusting plates, the latter being thus maintained in assembled position within the socket of the bracket member 1 by an interlocking dowel and socket engagement with the bracket. In order to prevent the pivot pin 3 from transmitting draft and buffing strains to the adjusting plates 4, while at the same time preventing the coupler from drooping when the adjusting plates are arranged at the top of the socket, such plates are preferably bifurcated at their inner ends so as to merely straddle the pivot pin without possibility of receiving strain therefrom.

In assembling the device the adjusting plates 4 are placed in proper position in the

socket of the bracket member 1, after which the shank 2^a of the coupler is inserted in the socket and the usual pivot pin 3 is passed through the pivot pin openings 1^b and 2^c in the bracket 1 and coupler 2, respectively, to thus connect the coupler to said socket. As will be readily understood, both of the adjusting plates 4 may be arranged in the bottom of the coupler receiving socket, or both may be placed at the top of such socket, or one or more of the plates may be placed at the top and one or more at the bottom. When one adjusting plate is placed at the top of the socket and another at the bottom, each plate is maintained in proper position through the interlocking engagement of its dowel or lug 4^a with the corresponding adjacent recess 1^e formed in the bracket member 1. When two or more adjusting plates 4 are placed in juxtaposition one of them interlocks with the bracket 1 in the manner just described, and as each plate interlocks with that adjacent to it in a precisely identical manner, all the plates are maintained in position through the engagement of one of them with the bracket 1.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. The combination with a bracket having a socket which is adapted to receive the shank of a coupler, of a coupler having a shank extending into said socket, means for securing said coupler to said bracket, and an adjusting plate arranged in said socket between said coupler shank and bracket, said adjusting plate having a lug upon one side and the upper and lower walls of said socket being provided with recesses adapted to receive the lug on said adjusting plate, whereby said plate may interlock with said bracket and be maintained in position in said socket either above or beneath the coupler shank.

2. The combination with a bracket having a flaring socket which is adapted to receive the shank of a coupler, of a coupler having a shank which is insertible through the mouth of and extends into said socket, a pivot pin connecting said coupler to said bracket, and a plurality of adjusting plates arranged in said socket, each of said adjusting plates having a lug upon one side and having upon the other side a recess adapted to receive a corresponding lug upon another of the adjusting plates, and the upper and lower walls of said socket being provided with recesses for forming a lug and socket engagement with an adjacent adjusting plate, whereby said plates may have interlocking engagement with each other and are maintained in position by said bracket.

In testimony whereof I affix my signature, in the presence of two subscribing witnesses.

ISAAC H. MILLIKEN.

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