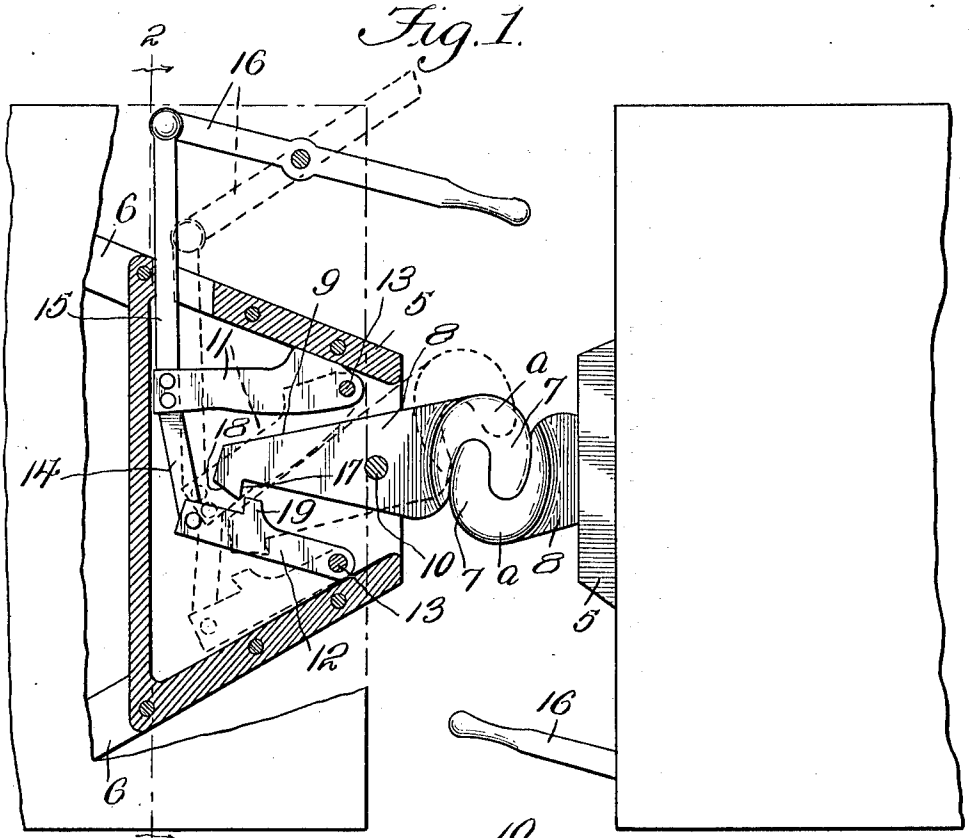
H. TAYLOR & S. L. HUTCHINS.

COUPLING.

APPLICATION FILED AUG. 19, 1911.

1,040,964. Patented Oct. 8, 1912.

Fig. 1.



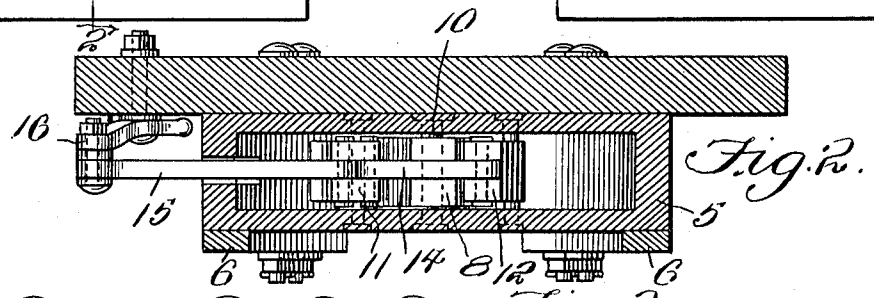
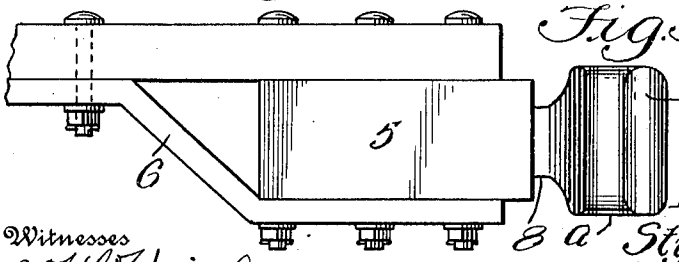


Fig. 2.

Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY TAYLOR AND STYLES LINTON HUTCHINS, OF PEORIA, ILLINOIS; SAID HUTCHINS ASSIGNOR TO WILLIAM BRAGG, OF PEORIA, ILLINOIS, AND SAID TAYLOR ASSIGNOR OF ONE-HALF HIS RIGHT TO SAID BRAGG.

COUPLING.

1,040,964. Specification of Letters Patent. Patented Oct. 8, 1912.

Application filed August 19, 1911. Serial No. 644,912.

To all whom it may concern:

Be it known that we, HENRY TAYLOR and STYLES L. HUTCHINS, citizens of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented new and useful Improvements in Couplers, of which the following is a specification.

The general object of the invention is to facilitate and expedite the coupling and uncoupling of mine cars, steam cars and the like, and to this end the invention consists in a coupling hook adapted for attachment to the ordinary type of car employed in mines and also that known as the building contractor's car, also steam cars and adapted to be oscillated from the side of the car so as to engage and disengage a cooperating coupling hook on the adjacent end of another car.

Other objects will appear and be better understood from the following description taken in connection with the accompanying drawings, in which,

Figure 1 is a detail plan of the adjacent ends of two cars showing the device partly in section and by full lines the positions of the parts when coupled and by dotted lines the positions of the parts when uncoupled. Fig. 2 is a vertical cross section approximately on the line 2—2 of Fig. 1 in the direction of the arrow. Fig. 3 is a detail side elevation of one end portion of a car provided with our device.

5 indicates a hollow draw bar or support connected to the car in any preferred manner such as by bars 6.

a, *a* indicate coupling hooks in Fig. 1 each hook having a curved bill 7 projecting beyond the draw bar 5.

8 indicates the shank of each hook and 9 an oblique or cam surface on one side of the shank.

10 indicates the pivot pin which passes through the draw bar and shank 8 as shown.

11 and 12 indicate a pair of cams pivoted at one end in the draw head as indicated by 13, and arranged to either side of the shank 8 as shown.

14 indicates a link connecting the free ends of the cams and 15 a connecting rod herein shown as pivotally connected at one end to the cam 11, its opposite end extending adjacent to the side of the car and pivotally connected to an operating lever 16 fulcrumed on the car, as shown. When the lever is pulled outwardly the cams turn in a reverse direction, whereby, the cam 11 presses on the cam surface 9 of the shank, thus turning the hook so that the bill thereof will move in the same direction as the operating lever and as shown by dotted lines in Fig. 1. This will have the effect of disengaging the hook from the hook on the end of an adjacent car or setting the said hook in position to engage with an adjacent hook when an opposite movement is imparted thereto, as will be presently described.

17 indicates a lateral shoulder at the inner end of the shank 8 and 18 a cam surface on said shoulder.

19 indicates a keeper on the cam 12, the function of which will be presently described.

When the lever is moved inwardly to the position shown by full lines in Fig. 1, the cam 12 will contact with the cam surface 18 on the shoulder 17, thus rocking the hook to the position shown by full lines in Fig. 1 until the keeper clears the shoulder 17 and moves in front of the same. When the parts are so positioned, the cam 12 will be oblique with respect to the long axis of the car so that when a pull is exerted on the hook the shoulder thereof will interlock with the keeper, thus preventing movement of the hook. Since the hook is now co-extensive with the long axis of the car it will be seen that when it is engaged with a similarly arranged hook on the end of an adjacent car the hooks will interlock or couple.

Although we have shown and described one embodiment of our invention, it is to be understood that we are not to be limited to the specific construction or arrangement of parts since various changes will be made, within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

What we claim as new is:

In a car coupler, in combination with a support, a coupling hook pivoted thereon,

said hook having a lateral shoulder at one end and a cam surface contiguous to said shoulder, of a pair of connected cams connected to said support and arranged to oscillate said hook, and coöperating interlocking means carried by one of said cams and adapted to engage the inner end of said hook.

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

HENRY TAYLOR.
STYLES LINTON HUTCHINS.

Witnesses:
JOHN MOSLEY,
A. J. JONES.