F. HORN.

COUPLING OPERATING ATTACHMENT FOR CARS.

APPLICATION FILED JULY 30, 1909.

974,793.

Patented Nov. 8, 1910.

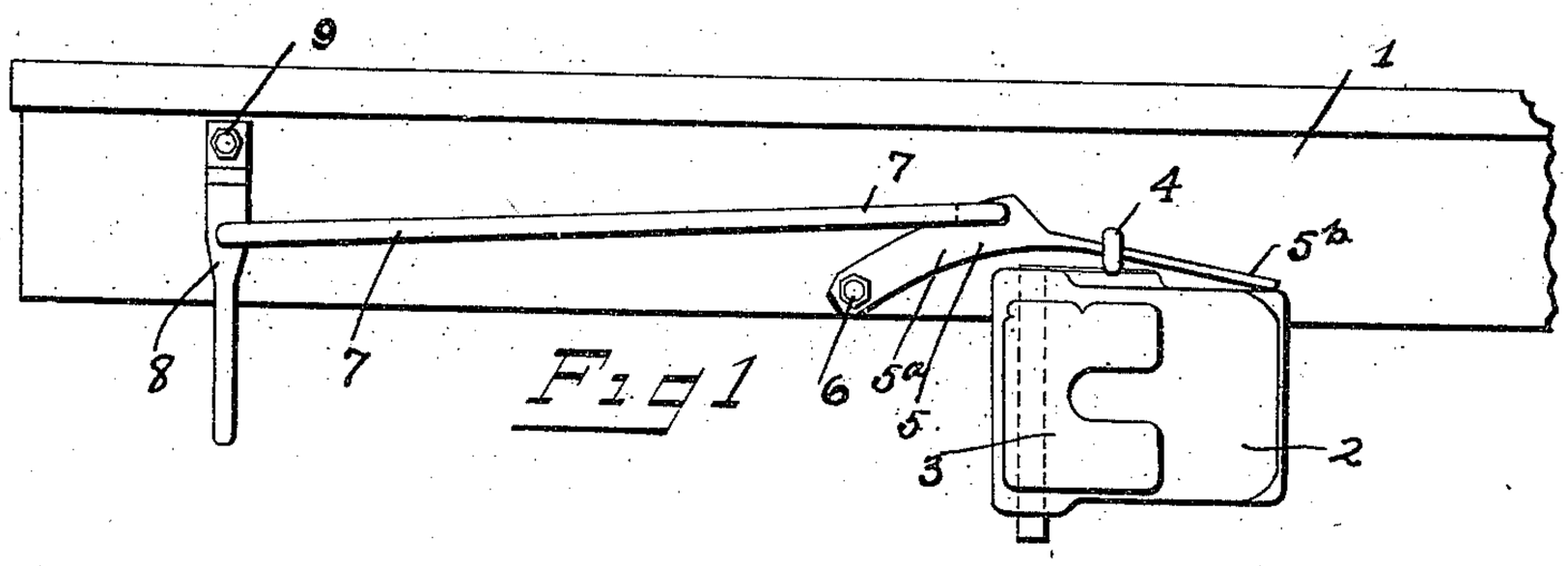

Fig 1

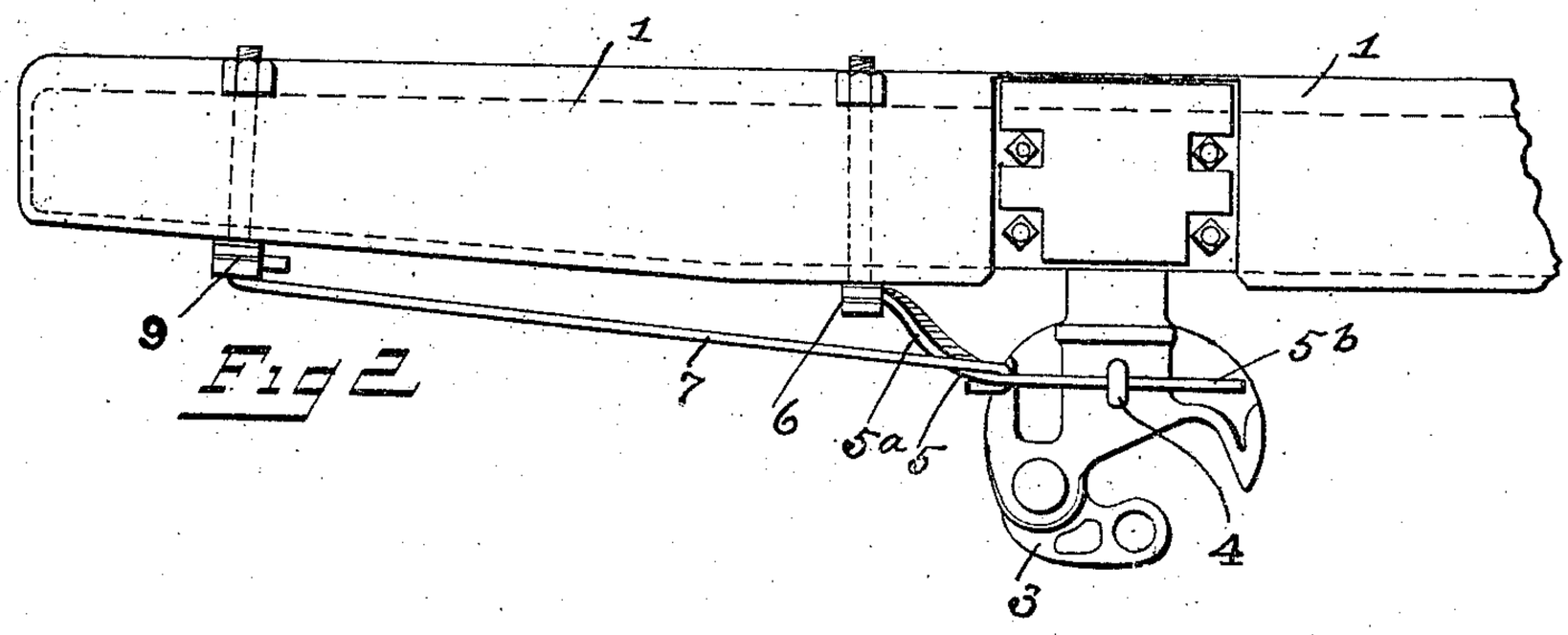

Fig 2

Witnesses

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COUPLING-OPERATING ATTACHMENT FOR CARS.

974,793. Specification of Letters Patent. Patented Nov. 8, 1910.

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To all whom it may concern:

Be it known that I, FRANK HORN, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Coupler-Operating Attachments for Cars, of which the following is a specification.

My invention relates to the improvement of coupler operating attachments for cars, and the objects of my invention are to provide a simple and effective attachment for cars, by means of which the locking pin of a coupler may be elevated for the purpose of releasing the knuckle or for releasing and throwing the knuckle outward without the necessity of a brakeman or other operator, stepping between the cars; to so construct my improved device as to provide the desired degree of leverage for raising the locking pin by the expenditure of a comparatively slight amount of power, and to produce other improvements the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawing, in which:

Figure 1 is a front elevation of a coupler and the end sill of a car, showing my improved pin elevating attachment in connection therewith, and, Fig. 2 is a plan view of the same.

Similar numerals refer to similar parts throughout the several views.

1 represents the usual end sill of a car, 2 the coupler or draw bar head, 3 the pivoted knuckle and 4 the head of the locking pin, said pin being shown in the drawings in its lowered position.

In carrying out my invention, I provide a lifting lever 5 which comprises a bar body 5^a having a reduced rod-like extension 5^b. The inner end of the bar body is pivoted as indicated at 6 to the lower portion of the outer face of the car sill 1 at one side of the coupler and from its pivot point, said bar body is bent upward and outward away from the car sill, its terminal reduced member 5^b extending from the outer end of the bar body in a direction approximately at right angles with the direction of the outward bend of the bar body, said reduced extension being formed with a slight downward incline, as shown. In its higher portion, the bar body 5^a has pivotally connected therewith, one end of a connecting rod 7, the remaining or outer end of which has a hooked or pivotal engagement with the upper portion of a normally vertical operating lever 8, this operating lever having its upper end portion pivoted as indicated at 9 to the face of the sill 1 near one end of the latter.

The operation of elevating the locking pin, either for the purpose of releasing the knuckle or for forcing the knuckle outward, consists in grasping the depending lower portion of the operating lever 8 and swinging the same outward on its pivot 9. Owing to the pivotal connection of the ends of the connecting rod 7, with the upper portion of the lever body 5^a, it is obvious that this outward movement of the operating lever, must result in the lever 5 swinging outward and upward in the arc of a circle and in the consequent raising of the locking pin 4 to the desired height.

It will be observed that the construction which I have described is exceedingly simple and that the same may be produced and applied to new cars or cars in service, with comparatively slight labor and that by the use of my device, the necessity of the brakeman or other operator going between the cars and thereby endangering his life, is obviated. In this connection, it will be observed that the operation of the lever 8, requires the movement of the body of the operator, outward away from the car, thereby avoiding any possibility of his falling or being thrown in operating the lever between or under the cars.

From the foregoing description, it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claim.

What I claim, is:

In a device of the character described, the combination with a car frame, a coupler connected therewith and a vertically movable locking pin in said coupler, of a locking pin lifting lever comprising a bar having one end pivotally connected with the vertical

end face of the car frame for vertical swinging movement from which point said bar inclines upwardly and outwardly, terminating in a locking pin engaging member, an operating lever depending from the car body and pivotally connected therewith, and a connecting rod having one end pivotally connected with the locking pin lifting lever above the pivot point of the latter and its remaining end pivotally connected with said operating lever.

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

FRANK HORN.

Witnesses:
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