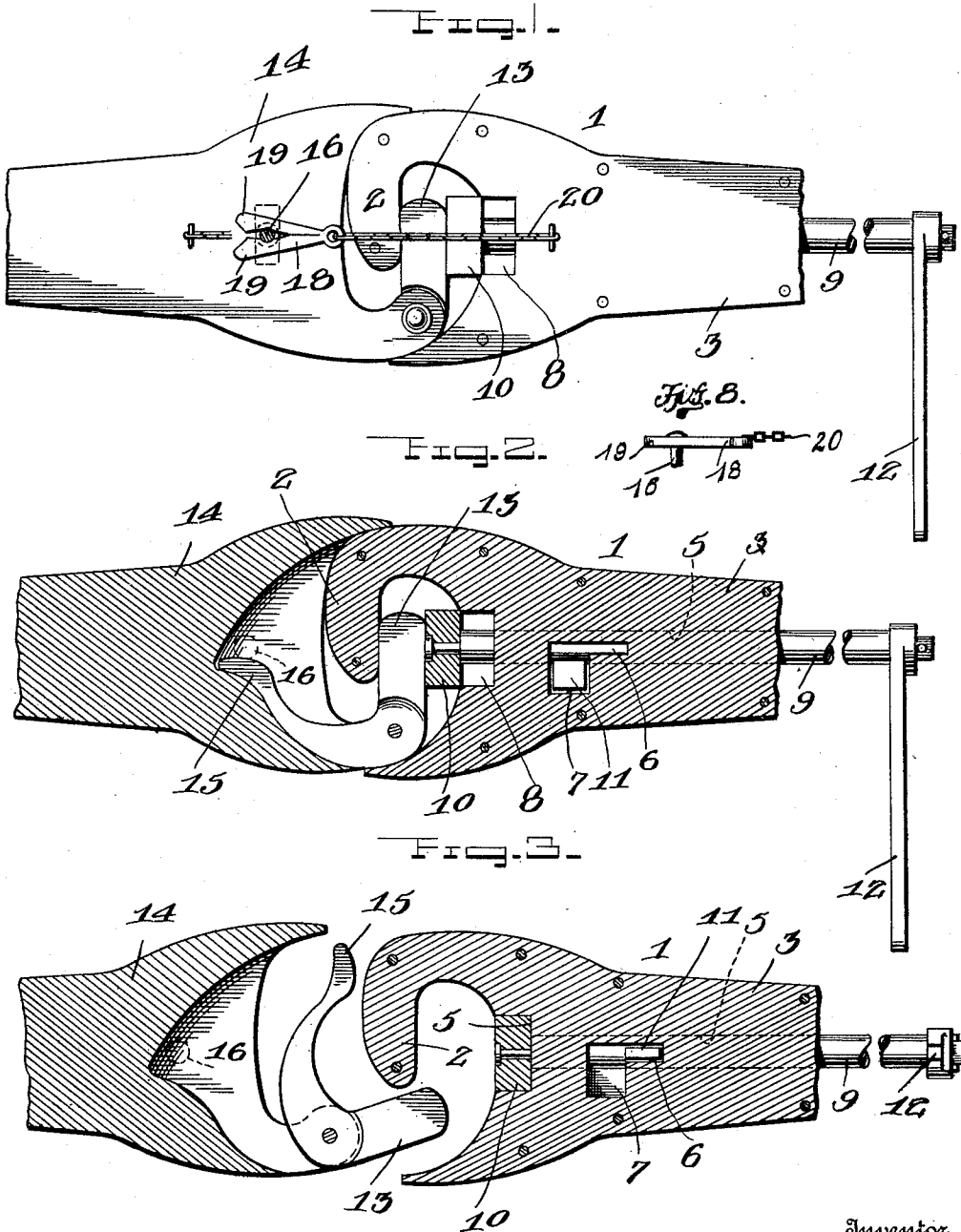


W. D. TARDIF.
LOCOMOTIVE COUPLING.
APPLICATION FILED SEPT. 19, 1910.

1,007,818.

Patented Nov. 7, 1911.
2 SHEETS-SHEET 1.



Witnesses

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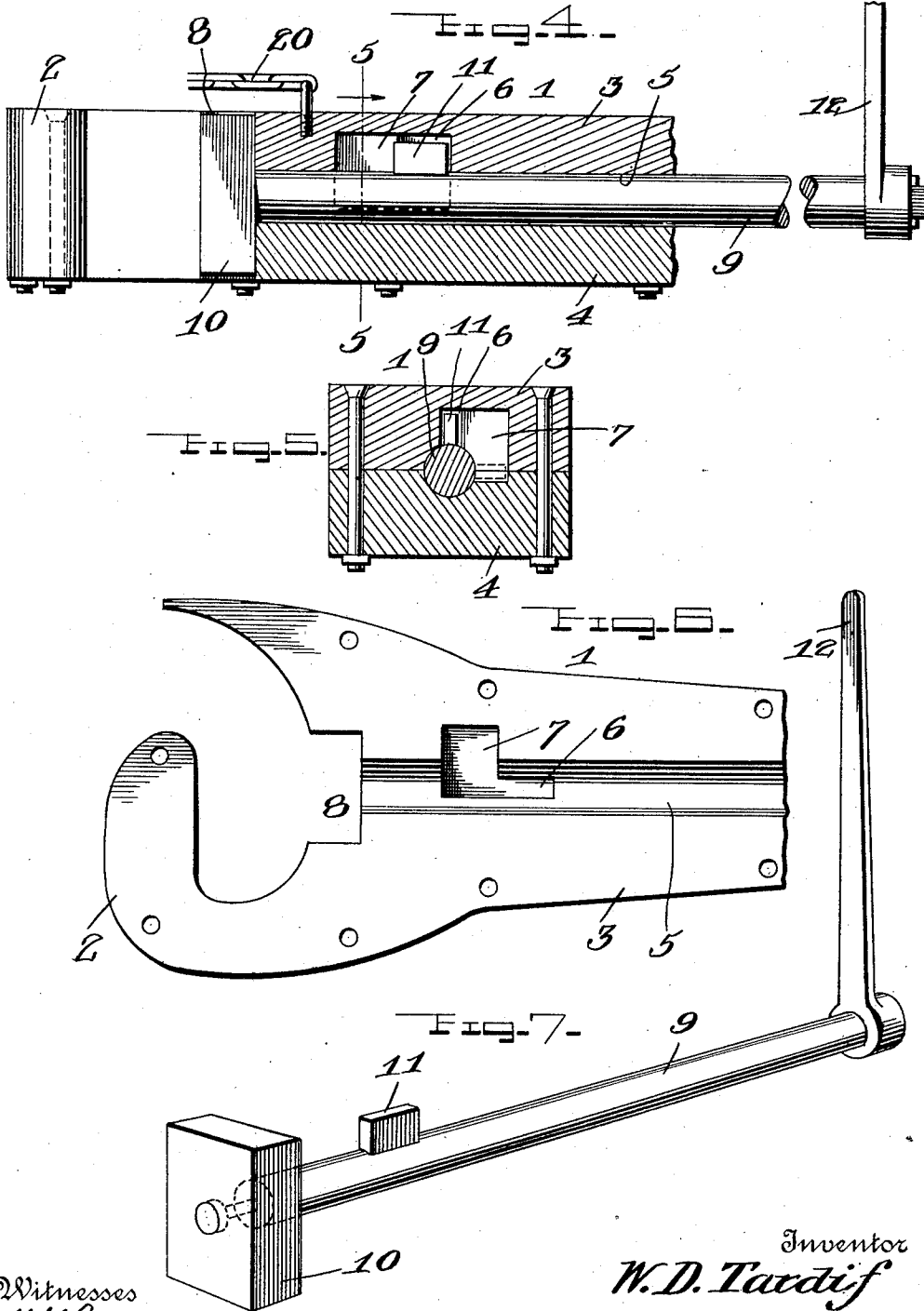
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UNITED STATES PATENT OFFICE.

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LOCOMOTIVE-COUPLING.

1,007,818.

Specification of Letters Patent.

Patented Nov. 7, 1911.

Application filed September 19, 1910. Serial No. 582,788.

To all whom it may concern:

Be it known that I, WILLIAM D. TARDIF, a citizen of the United States, residing at Stanford, in the county of Lincoln and State of Kentucky, have invented certain new and useful Improvements in Locomotive-Couplers; and I do 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.

This invention relates to improvements in locomotive couplers.

The primary object of the invention is to provide an improved mechanism whereby a locomotive may be uncoupled by the engineer or fireman in the cab when an accident or other cause makes the separation of the engine from the train desirable.

With this and other objects in view the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a plan view of my improved coupler showing an ordinary car coupler operatively engaged therewith; Fig. 2 is a horizontal sectional view of the same; Fig. 3 is a similar view showing the locking mechanism of the locomotive coupler in a retracted or released position to permit the release or separation of the car coupler; Fig. 4 is a central vertical longitudinal section with the locking mechanism of the locomotive coupler in retracted or released position; Fig. 5 is a cross section of the locomotive coupler on the line 5-5 of Fig. 4; Fig. 6 is a bottom plan view of the upper section of the locomotive coupler; Fig. 7 is a detail view of the locking plate, with its operating shaft and the lever of the locomotive coupler; Fig. 8 is a side view of parts 18, 19 and 20.

Referring more particularly to the drawings 1 denotes my improved locomotive or engine coupler which is of the Janney type except the jaw 2 is fixed. The coupler 1 comprises a body portion formed in upper and lower sections 3 and 4 which are bolted or otherwise suitably secured together. In the upper and lower sections 3 and 4 are formed aligned longitudinal grooves which form a passage 5 extending through the body of the coupler. In the groove of the upper section 3 is formed a longitudinal re-

cess 6 and a transverse or right angular recess 7. In the opening of the head of the coupler which receives the jaw of the car coupler is formed a vertical recess 8 with which the outer end of the passage 5 communicates. In the passage 5 is arranged a rock shaft 9 on the outer end of which is pivotally mounted a locking plate 10 the purpose of which will be hereinafter described. On the shaft 9 opposite the recesses 6 and 7 of the passage 5 is formed a locking lug 11 which when the shaft 9 and plate 10 are in a retracted or inoperative position is adapted to engage the recess 6 and which when the shaft and plate are in a projected or operative position is adapted to engage the recess 7 whereby said parts are held or locked in this position.

The coupler 1 is preferably arranged at the outer end of the engine or locomotive tender and the rock shaft 9 is adapted to extend beneath the tender to the inner end thereof. On the end of the shaft at the inner end of the tender and projecting upwardly within reach of the engineer or fireman is an operating lever 12 whereby said shaft may be projected and retracted to project and retract the locking plate 10 and whereby the shaft may be rocked to engage the lug 11 with the right angular recess 7 to lock the shaft and plate 11 in an operative position.

When coupling the engine and tender to a train, the pivoted jaw 13 of the ordinary coupler 14 carried by the car which is to be coupled to the tender, is engaged with the head of the coupling 1 in the usual manner, and when so engaged the pivoted jaw 13 will be locked to prevent the disengagement of the coupling and uncoupling of the car by the locking plate 10 which is projected into engagement with the jaw 13 and locked in such projected position by the rock shaft 9 and lug 11 in the manner described.

When it is desired to uncouple the engine and tender it is simply necessary to swing the lever 12 upwardly which operation will rock the shaft 9 and thus disengage the lug 11 from the locking recess 7 and permit the shaft and locking plate 10 to retract whereupon the pivoted jaw 13 of the car coupler 14 is permitted to open and thus cause the uncoupling of the engine and tender from the train.

In order to prevent the knuckle tail 15 of the pivoted jaw 13 of the car coupler 14

from being locked by its locking pin 16 I provide a pin supporting plate 18 which is split to provide the divergent recessed fingers 19 adapted to engage the pin 16 below its head as shown in Fig. 1 of the drawings. The plate 18 is attached to the coupler 1 by a short chain 20 or similar attaching device and will rest upon the upper side of the coupled draw-head to engage under an annular shoulder on the locking pin 16 or under the end of the pin, as will be readily understood. After the locomotive is coupled to the car, the locking pin 16 is raised to an inoperative position and engaged by the fingers 19 to be held in that position. Should it be necessary to separate the engine from the train, the engineer or fireman raises the lever 12 and draws the rock-shaft forward so that the locking plate 10 will be released from the pivoted jaw 13, whereupon, if the engine be driven forward, said jaw will swing around on its pivot and permit the uncoupling of the draw-heads. The plate 18 will, of course, be drawn forward with the coupling member attached to the locomotive or the tender but will engage the pin 16 long enough to prevent it from dropping into its normal locking position until after uncoupling is effected.

By means of an engine or locomotive coupler constructed in accordance with my invention it will be readily seen that the locomotive and tender may be quickly and easily detached or uncoupled from the train.

My device is especially advantageous in the event of an accident to the train when it becomes necessary or advisable to release the locomotive from the train without stopping.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. A locomotive coupler comprising a draw-head having a fixed jaw with a trans-

versely extending outer portion forming a recess adapted to receive the pivoted jaw of an engaging car coupler, a locking plate arranged in the said draw-head and adapted to bear against said pivoted jaw to hold the same against the fixed jaw of the locomotive coupler, a longitudinally movable rod mounted in the draw-head and connected to said plate to move the same from and toward the pivoted jaw, and means to lock said rod in its projected position.

2. A locomotive coupler comprising a draw-head having a fixed jaw with a transversely extending outer portion forming a recess adapted to receive the pivoted jaw of an engaging car coupler, said draw-head having a central longitudinal passage and a locking recess at right angles thereto, a rock-shaft slidably mounted in said passage, a locking plate pivotally connected to the outer end of said shaft and adapted to be projected thereby into engagement with said pivoted jaw to hold the same against the fixed jaw, a lug on said rock-shaft adapted to engage said locking recess to hold the rock-shaft against longitudinal movement, an operating lever on said shaft, and means connected to the draw-head to hold the jaw locking pin of the engaging car coupler in an inoperative position.

3. A locomotive coupler comprising a draw-head having a fixed jaw with a transversely extending outer portion forming a recess adapted to receive the pivoted jaw of an engaging car-coupler, said draw-head having a central longitudinal passage and a locking recess at a right angle thereto, a rock-shaft slidably mounted in said passage, a locking plate pivotally connected to the outer end of said shaft and adapted to be projected thereby into engagement with said pivoted jaw to hold the same against the fixed jaw, a lug on said rock-shaft adapted to engage said locking recess to hold the rock-shaft against longitudinal movement, and means for operating the rock-shaft.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM D. TARDIF.

Witnesses:

J. W. ROCHESTER,
THOS. P. BRIGHT.