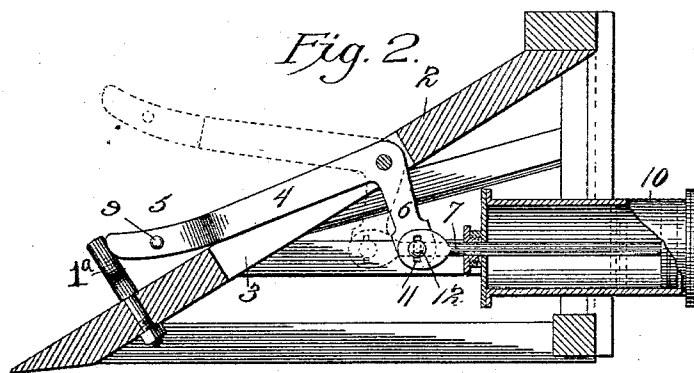
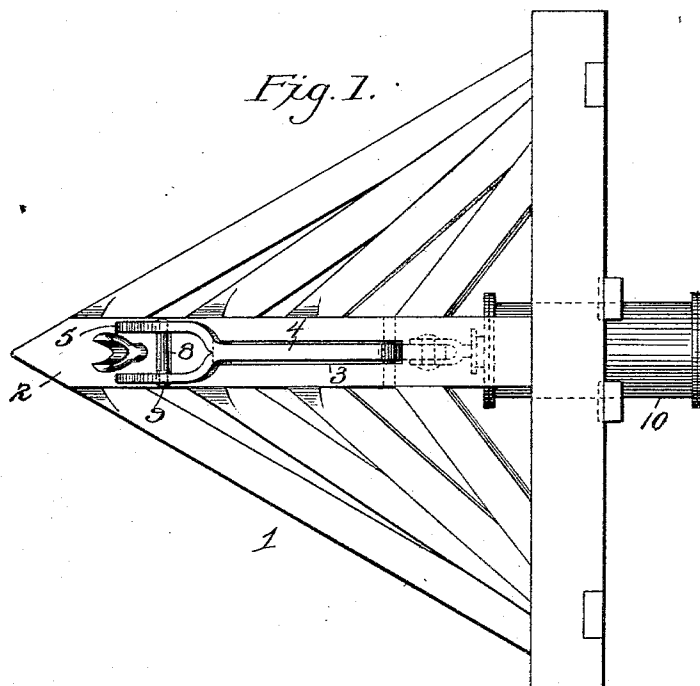


(No Model.)

W. P. SHELLY.
PILOT BAR COUPLING FOR LOCOMOTIVES.

No. 563,690.

Patented July 7, 1896.



Witnesses.

J. D. Burnworth
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UNITED STATES PATENT OFFICE.

WILLIAM PIERSON SHELLY, OF INDEPENDENCE, KANSAS, ASSIGNOR OF
ONE-FOURTH TO A. R. BOWMAN, OF SAME PLACE.

PILOT-BAR COUPLING FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 563,690, dated July 7, 1896.

Application filed February 6, 1896. Serial No. 578,452. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PIERSON SHELLY, a citizen of the United States, residing in the city of Independence, in the county of Montgomery and State of Kansas, have invented a new and useful Pilot-Bar Coupler for Locomotives, of which the following is a specification.

The invention relates to improvements in pilot-bar lifters.

The object of the present invention is to provide a simple, inexpensive, and efficient device for enabling an engineer to raise or lower the pilot-bar of a locomotive, in order that he may couple a locomotive to a car without leaving the cab and without necessitating a person going between the locomotive and the car.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a plan view of a pilot of a locomotive constructed in accordance with this invention. Fig. 2 is a central longitudinal sectional view of the same.

Like numerals of reference designate corresponding parts in both the figures of the drawings.

1 designates a locomotive-pilot, provided in its central inclined beam 2 with a longitudinal slot 3, in the upper end of which is fulcrumed a bell-crank lever 4, arranged to engage and support a pilot-bar, whereby the latter is adapted to be raised or lowered to be guided into the mouth of a draw-head and effect the operation of coupling. The bell-crank lever 4 is fulcrumed at its angle. One arm extends forward, and its outer end is forked and bent upward slightly, and the other arm 6 of the bell-crank lever depends from the central bar or beam 2 and is connected with a piston-rod 7.

The forked outer portion 5 of the bell-crank lever is adapted to receive a pilot-bar, and it is provided, within its fork, with a transversely-disposed horizontally-arranged roller 8, mounted on a fastening device 9. The roller is adapted to receive the pilot-bar, and when the outer arm of the bell-crank lever is swung upward, as illustrated in dotted lines

in Fig. 2 of the accompanying drawings, the roller 8 slides along the bottom of the operating-bar, swinging the latter upward. The pilot-bar is adapted to rest upon the roller between the outer portions of the sides of the fork and cannot slip off the bell-crank lever. When the pilot-bar is not in use, it rests in a support 1^a of the pilot 1, and is maintained out of contact with the L-shaped lever to relieve the latter of strain. The support 1^a, which is substantially Y-shaped, consists of a shank and a pair of upwardly-diverging arms, located in advance of the forwardly-extending arm of the bell-crank lever and adapted to receive the pilot-bar, and the shank, which is threaded, is passed through the central bar of the pilot and is secured to the same by a nut.

The piston-rod 7 carries at its rear end a piston-head, which is arranged within a cylinder 10 and is adapted to be operated by compressed air, steam, or the like. Any suitable means may be provided for enabling the engineer of a locomotive to control the admission of compressed air, steam, or the like into the cylinder, so that he can raise and lower the pilot-bar to effect the operation of coupling without leaving the cab and without necessitating a person riding on a pilot and guiding a pilot-bar by hand.

The cylinder 10 is mounted in a horizontal position at the back of the pilot, and the front end of the piston-rod is provided with a substantially vertically-disposed slot 11, in which is arranged the pivot 12, which connects the front end of the piston-rod with the lower end of the depending arm of the bell-crank lever, and the slot permits the necessary vertical movement of the pivot resulting from the swinging of the depending arm of the bell-crank lever.

It will be seen that the device is exceedingly simple and inexpensive in construction, that it is adapted to be readily mounted on pilots of the ordinary construction, and that it is capable of enabling an engineer to raise and lower the pilot-bar of a locomotive without leaving the cab and without necessitating a person riding on the pilot and guiding the bar by hand.

What I claim is—

1. The combination with a pilot provided

with a central longitudinal slot, of a bell-crank lever fulcrumed at its angle in the slot at the upper end thereof, having one arm depending from the pilot and having its other arm extending forward from the upper end of the slot and forked at its outer or front end to receive a pilot-bar, a transverse roller arranged within the forked portion of the bell-crank lever and adapted to receive and support a pilot-bar, a horizontal cylinder mounted at the back of the pilot, and a horizontal piston-rod connected at its front end with the depending arm of the bell-crank lever and provided at its rear end with a piston-head arranged within the cylinder, substantially as and for the purpose described.

2. The combination with a pilot, of a lever arranged to engage the pilot-bar and adapted to raise the same, and having its engaging portion forked and adapted to receive the

pilot-bar between the sides of the fork to prevent the same from becoming displaced, a roller arranged within the fork and adapted to receive the pilot-bar, and means for operating the lever to raise and lower the pilot-bar, substantially as described.

3. The combination with a pilot, of a lever fulcrumed thereon, adapted to raise and lower the pilot-bar and having its front end forked for the reception of the same, a substantially Y-shaped support mounted on the pilot in advance of the lever and having its diverging sides, arranged to receive the pilot-bar to support the same above the lever and out of contact with the same, and means for operating the lever, substantially as described.

WILLIAM PIERSON SHELLY.

Witnesses:

J. D. BURNWORTH,
R. M. ROTHROCK.