

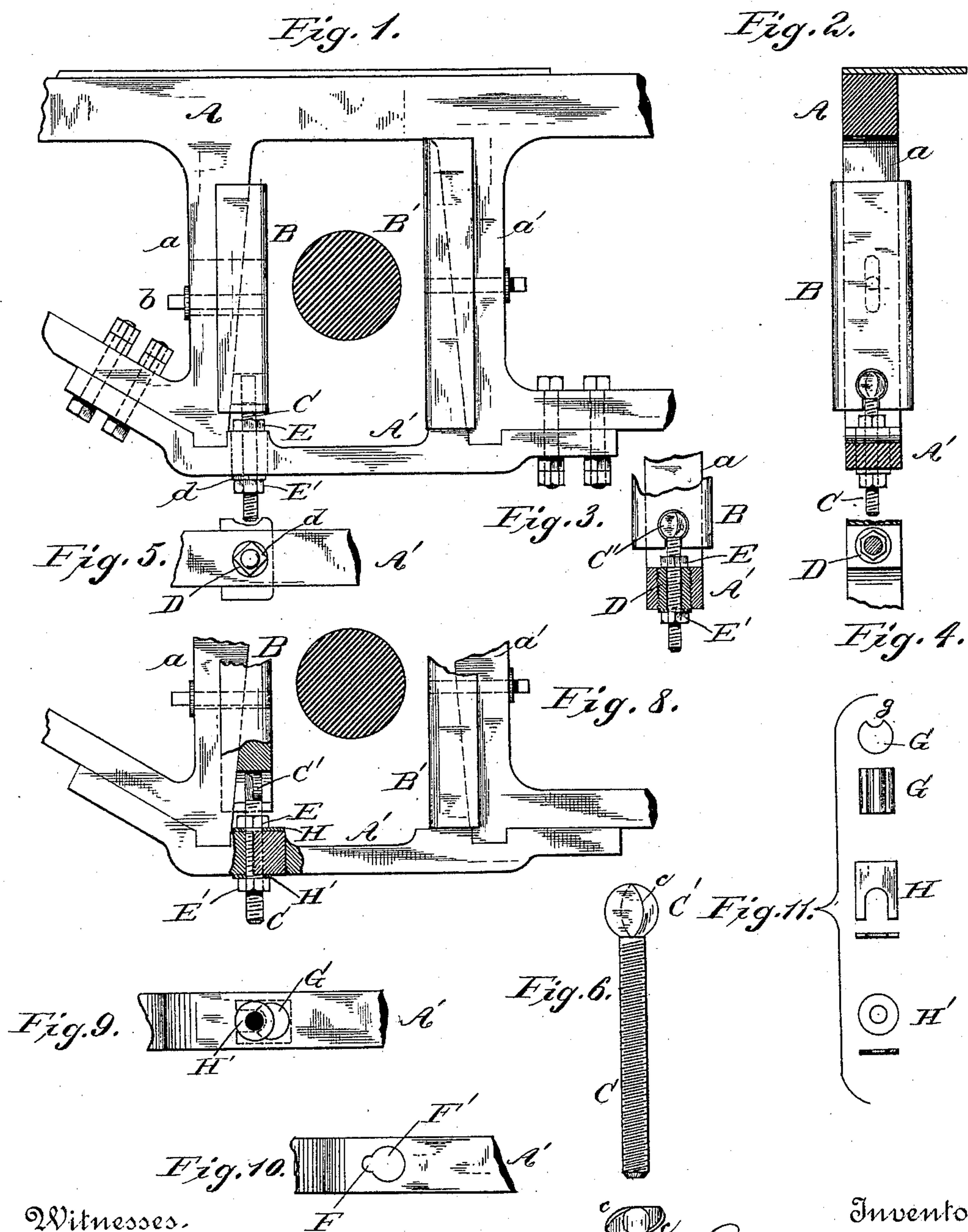
(No Model.)

J. P. VAN NESS.

WEDGE BOLT FOR LOCOMOTIVES.

No. 395,763.

Patented Jan. 8, 1889.



Witnesses.

Geo. A. Terrett

Edward P. Johnston

Fig. 7.

By his Attorneys

Whittemore & Wright,

Inventor,

John P. Van Ness



# UNITED STATES PATENT OFFICE.

JOHN P. VAN NESS, OF LITTLE FALLS, NEW JERSEY, ASSIGNOR OF ONE-HALF  
TO JOHN E. EARLE, OF MIDDLETOWN, NEW YORK.

## WEDGE-BOLT FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 395,763, dated January 8, 1889.

Application filed June 15, 1888. Serial No. 277,172. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN P. VAN NESS, a citizen of the United States, residing at Little Falls, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Wedge-Bolts for Locomotives; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to locomotives; and it consists in an improved form of wedge-bolt for the driving-box wedge, as hereinafter described and claimed.

The ordinary wedge-bolt now in use is provided with a T-head engaging with a T-slot in the lower end of the wedge. The bolt is tapped into a hole in the pedestal-brace, below which is a lock-nut. When adjusted, the wedge is held in position by a set-screw passing into it through a slot in the leg of the pedestal. The wedge is often broken in attempting to draw down a wedge that has become stuck by the expansion of the driving-box from overheating or some other cause. In such an event the broken pieces cannot be removed without taking down the pedestal-brace, which is a long and tedious job.

The object of my improvement is to enable a broken wedge-bolt to be removed and a new one to be inserted without disturbing the pedestal-brace.

In the drawings, Figure 1 is a side view of a rear pedestal, the driving-box being omitted. Fig. 2 is a vertical section of the same. Fig. 3 is a vertical section through the removable bushing. Fig. 4 is a top plan view, and Fig. 5 a bottom plan view, of the bushing and bolt. Figs. 6 and 7 are views of the bolt. Fig. 8 is a side view of a portion of the pedestal, showing a modification. Fig. 9 is a bottom plan view with the bolt in section. Fig. 10 is a plan view with the washers and bolt removed, and Fig. 11 shows the removable plug and the washers.

The same letters refer to the same parts in all the figures.

The frame A, the legs *a a'*, the pedestal-brace A', the movable wedge B, and the dead-wedge B' are all made as usual. The hole through the brace A' is, however, of sufficient diameter to permit the head C' of the wedge-bolt C to pass through it. The bolt-head is shaped like a disk set vertically and of the thickness equal to the diameter of the bolt. The upper part of the T-slot in the wedge is cylindrical, so that when the head of the bolt has been turned to engage with it the disk will fill the slot, as clearly shown in Figs. 2 and 3. The disk is cut away at two diagonally-opposite edges, *c*, in order to allow it to be turned in the slot to engage or disengage it. After the head of the bolt has been passed through the hole in the pedestal-brace and has been engaged with the wedge a threaded plug or bushing, D, is slipped over the shank of the bolt and is screwed into the hole in the brace A'. The bushing has a squared head, *d*, to receive a wrench. By means of two nuts, E E', the bolt C and wedge B can then be adjusted up or down on the leg *a*. The wedge is held in position after it is adjusted by the screw *b*.

If the bolt should break, the pieces can readily be taken out by removing the nut E' and unscrewing the bushing D, when the head C' can be disengaged from the wedge B and dropped through the hole in the brace A'. The new bolt can then be inserted and the bushing replaced without disturbing the pedestal-brace.

A modified construction is shown in Figs. 8, 9, 10, and 11. The bolt-hole F in the pedestal-brace is made to fit the bolt; but alongside of it is drilled a larger hole, F', the circumference of which cuts the hole F diametrically, and which is large enough to permit the head of the bolt to go through it.

After the bolt-head has been passed through the large hole the shank of the bolt is moved laterally into the small one and a cylindrical plug, G, having a semicircular groove, *g*, on one side of it, is slipped into the hole F', the groove *g* fitting that side of the bolt which lies toward the hole F'. The length of the plug is the same as the thickness of the pedestal-brace, so that its ends lie flush with the surface of the brace. A U-shaped washer, H,

above and a circular washer, H', below overlap the ends of the plug, and, being held in place by the nuts E E', prevent the plug from escaping.

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

10 1. The combination, with a wedge-bolt, of a pedestal-brace having a hole large enough to permit the head of the bolt to pass through it, and a removable plug filling the space between the shank of the bolt and the wall of the hole, substantially as described.

15 2. The combination, with a wedge-bolt having a T-shaped head, of a pedestal-brace having a threaded hole large enough to permit the head of the bolt to pass through it, and a

threaded bushing screwed into the hole and filling the space around the shank of the bolt, substantially as described. 20

3. The combination, with the wedge B, of the wedge-bolt C, having a head, C', cut away at c, the pedestal-brace A', having a threaded hole large enough to let the head C' pass through it, the bushing D, screwed into the 25 hole around the shank of the bolt, and the nuts E E', to adjust and lock the bolt, substantially as described.

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

JOHN P. VAN NESS.

Witnesses:

JOHN WILKIN,  
D. F. SEWARD.