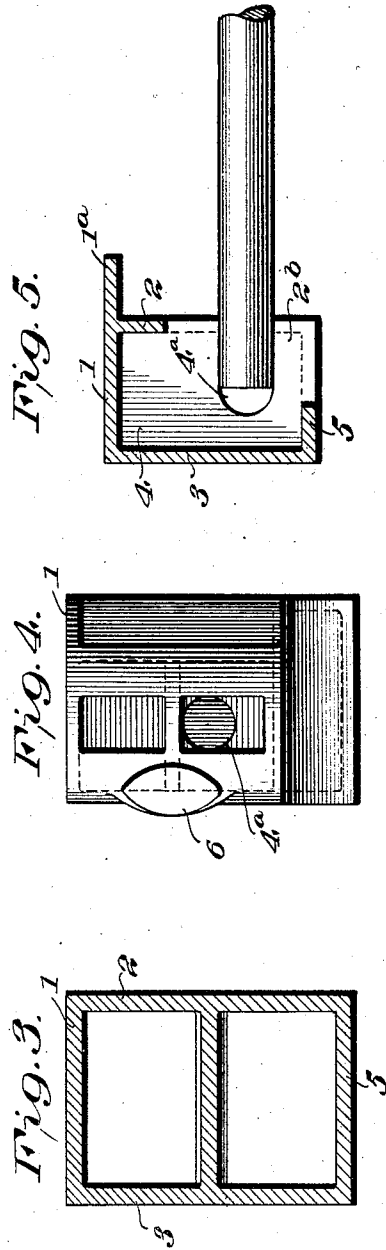
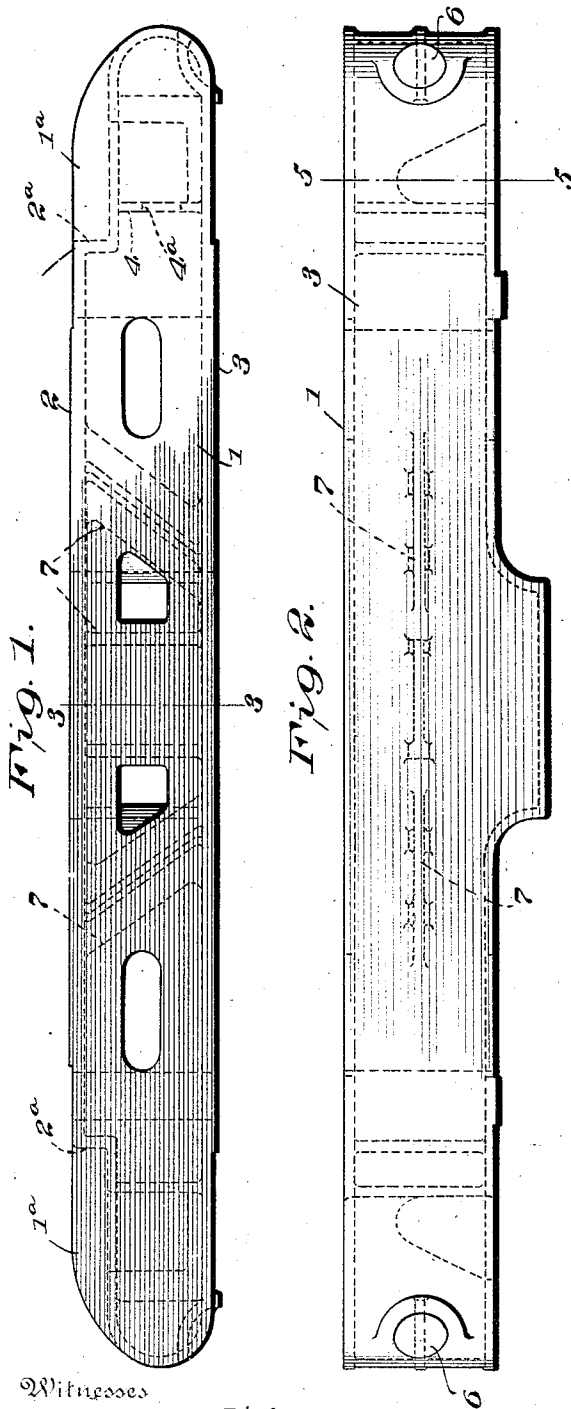


C. T. WESTLAKE.
 BUFFER BEAM.
 APPLICATION FILED JULY 31, 1911.

1,024,756.

Patented Apr. 30, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

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BUFFER-BEAM.

1,024,756.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed July 31, 1911. Serial No. 641,646.

To all whom it may concern:

Be it known that I, CHARLES T. WESTLAKE, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Buffer-Beams, of which the following is a full, clear, and exact description, 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, forming part of this specification, in which—

Figure 1 is a top plan view of my improved buffer beam. Fig. 2 is a front elevational view of the same. Fig. 3 is a sectional view on line 3—3, Fig. 1. Fig. 4 is an end elevational view. Fig. 5 is a sectional view on line 5—5, Fig. 2.

This invention relates to a new and useful improvement in buffer beams for locomotives, the object being to construct a beam of cast metal and to form the end thereof in such manner that it will accommodate the movement of the forward end of the extension of the piston rod when the piston is removed from the cylinder, the ends of the buffer beam being recessed for that purpose, and at the same time preserve the integral solid appearance of the beam.

A further object of my invention is to arrange the end portions of the rear wall of the buffer beam comparatively close to the end portions of the front wall, thereby forming a compact and comparatively strong construction at the ends of the beam, it being essential that the ends of said beams be especially strong in order to resist the pressure upon push poles, which, when used, have their rear ends positioned in pockets or seats formed in the ends of the buffer beam.

In the drawings: 1 indicates the top wall which is provided with openings at suitable points for the passage of chaplets or anchors for the core.

2 is the back wall, and 3 the front wall, said walls being substantially parallel throughout the major portion of their length and being reduced in thickness at the ends of the beam, as shown, said rear wall having a shoulder or step 2^a whereby it is brought closer to the front wall so as to leave an overhanging flange 1^a, said flange

being a continuation of the top wall of the beam.

By constructing the ends of the beam in the manner just described the full outline and solid appearance of the beam from the top and front is maintained and the end portions of the rear wall of said beam are positioned comparatively close to the end portions of the front wall, thereby forming a compact construction of ample strength to withstand the impact of heavy blows upon the ends of the beam, and to withstand the strains and stresses imparted to said beam by the push poles when the same are used.

The rear wall 2, where it is inset is provided with an opening 2^b in which opening the extension of the piston rod operates. One side of this opening, the inner, is formed by a vertically disposed web 4 which web has an opening 4^a formed therein for the passage of chaplets or anchoring devices for the cores. The transversely disposed web 4 together with the flange 1^a materially strengthen the end portions of the beam, which end portion is purposely narrow, as hereinbefore described.

5 is a bottom wall which is dipped at its central portion, as shown in Fig. 2, said bottom wall opposite the openings 2^b in the inset walls 2 being cut away, as shown in Fig. 5. The front wall at the ends of the beam is provided with pole pockets 6. Reinforcing webs 7 connect the front and back walls at points intermediate the top and bottom walls, as shown in Figs. 1 and 2.

My improved buffer beam is intended to receive a coupler which is fastened to the front or bottom walls thereof at the center of the beam, but I have not shown the openings for the reception of the fastening devices. The bottom wall is provided with openings at different points for the passage of chaplets or core supports.

The buffer beam as a whole is provided with an opening or openings continuous throughout its entire length, the end walls being cut away, as shown, so that the core may be anchored or secured firmly in position.

By my improved construction a strong, substantial buffer beam is provided, and which beam when applied for use presents a solid and finished appearance and the rear and bottom walls at the ends of the beam

are cut away to provide sufficient clearance for the forward ends of the piston rod extensions when said extensions are moved forward during the operation of detaching the pistons from the cylinders.

What I claim is:

1. A buffer beam having the end portions of its rear wall inset, a strengthening web between the inset end portions of the rear wall and the corresponding portions of the front wall and a top plate overhanging the inset ends of said rear wall.

2. A buffer beam having an inset rear wall at its ends, and a top plate overhanging the inset ends of said rear wall.

3. A buffer beam having the end portions of its rear wall inset and integral strengthening webs connecting the inset portions of the rear wall and the front wall.

4. A buffer beam having the end portions of its rear wall inset, and which inset end portions are provided with openings adapted to receive the forward ends of the piston rod extensions.

5. A hollow cast metal buffer beam having the end portions of its rear wall inset,

which inset rear portions are provided with openings adapted to receive the forward ends of the piston rod extensions, and the bottom plate of which beam is cut away in front of the openings in the inset portions of the rear wall.

6. A buffer beam having front and rear walls, substantially parallel throughout the middle portion, the rear wall being inset at the ends of the beam and the top wall overhanging said inset portion.

7. The hereindescribed buffer beam comprising an elongated hollow, box-shaped body the ends of which are closed and the rear and bottom walls of which hollow body are cut away at points inside the closed end thereof for the reception of piston rod extensions.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 17th day of July, 1911.

CHARLES T. WESTLAKE.

Witnesses:

HAL C. BELLVILLE,
LILY POST.