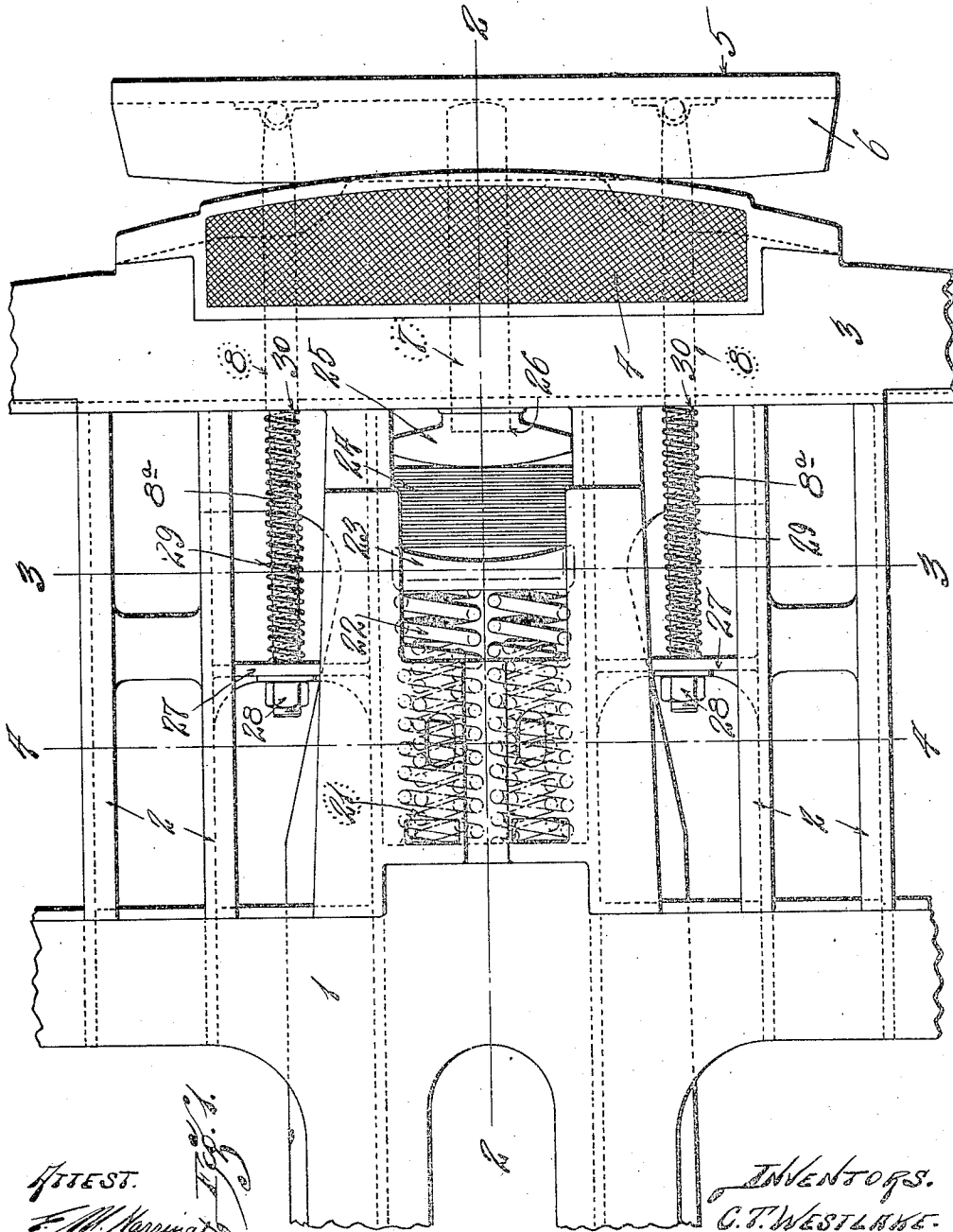


C. T. WESTLAKE & C. F. FREDE.
 BUFFING MECHANISM FOR CAR PLATFORMS.
 APPLICATION FILED SEPT. 15, 1911.

1,049,016.

Patented Dec. 31, 1912.

2 SHEETS—SHEET 1.



WITNESSES.

F. W. Harrington.
Wm. J. Jannus.

INVENTORS.
 C. T. WESTLAKE.

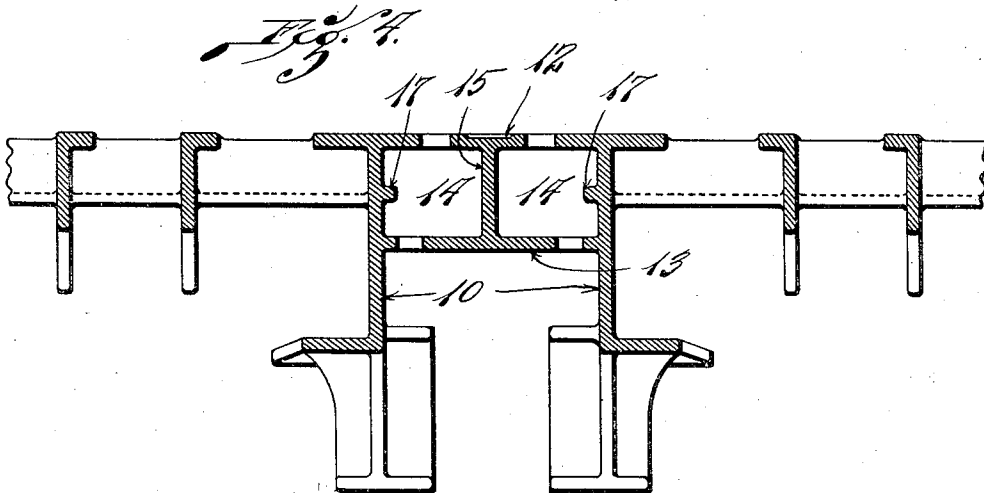
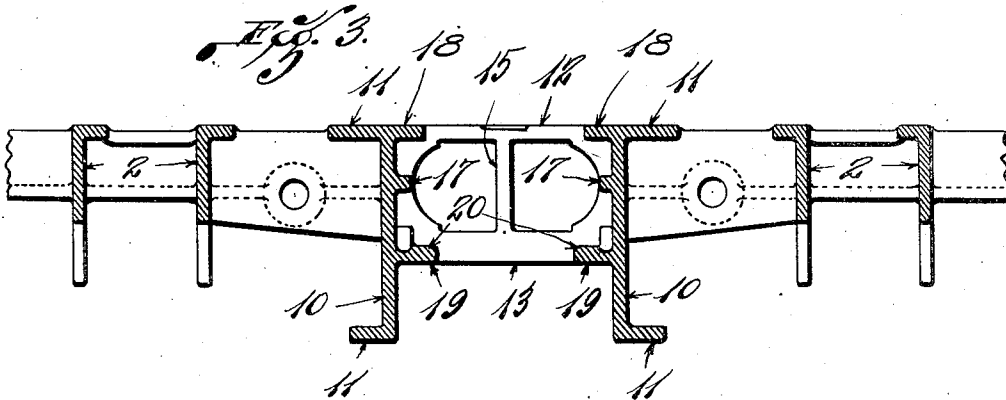
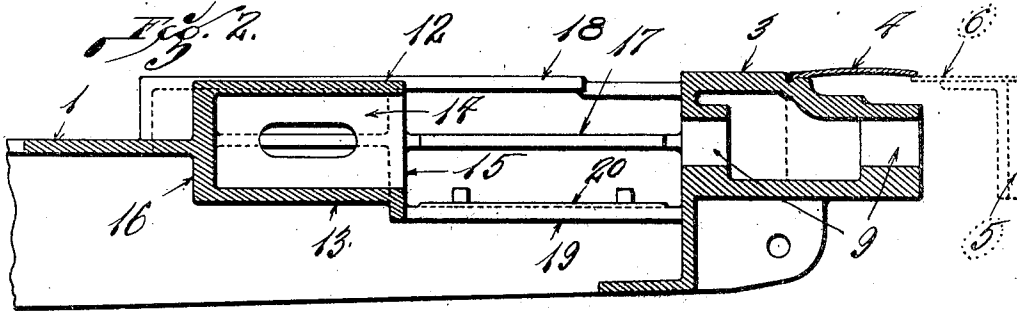
C. F. Frede.
J. R. Cornwall.

C. T. WESTLAKE & C. F. FREDE.
 BUFFING MECHANISM FOR CAR PLATFORMS.
 APPLICATION FILED SEPT. 15, 1911.

1,049,016.

Patented Dec. 31, 1912.

2 SHEETS—SHEET 2.



ATTEST.

F. M. Harrington.
Wm. Janus.

INVENTORS.

CHARLES T. WESTLAKE.
CHARLES F. FREDE.

By J. R. Cornwall.

UNITED STATES PATENT OFFICE.

HARLES T. WESTLAKE AND CHARLES F. FREDE, OF ST. LOUIS, MISSOURI, ASSIGNORS
TO DOUBLE BODY BOLSTER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF
NEW JERSEY.

BUFFING MECHANISM FOR CAR-PLATFORMS.

1,049,016.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed September 15, 1911. Serial No. 649,554.

To all whom it may concern:

Be it known that we, CHARLES T. WESTLAKE and CHARLES F. FREDE, citizens of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Buffing Mechanism for Car-Platforms, 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 a cast metal platform frame, with portions of the buffer beam and end sill, and showing the buffing mechanism in position thereon. Fig. 2 is a longitudinal section taken approximately on line 2—2 of Fig. 1 with the operating parts of the buffing mechanism removed. Fig. 3 is a transverse section taken approximately on line 3—3 of Fig. 1 with the operating parts of the buffing mechanism removed. Fig. 4 is a transverse section taken approximately on line 4—4 of Fig. 1 with the operating parts of the buffing mechanism removed.

This invention relates generally to railway car platform construction, and more particularly to the buffing mechanism applied to cast metal platforms, and the objects of the invention are, to construct the cast metal platform frame and buffer beam so that the various operating parts of the buffing mechanism can easily and quickly be applied to or removed from said buffer beam and platform, to provide a construction wherein the operating parts of the buffing mechanism can be readily placed in or removed from position without detaching the vestibule or the buffer from its stems, and to provide guide or bearing ribs for the spring follower plates of the buffing mechanism.

With the above objects in view, our invention consists in certain novel features of construction and arrangement of parts hereinafter more fully described and claimed.

Referring in detail to the accompanying drawings, 1 designates the end sill of a cast metal underframe of the type now in general use, and formed integral with said end sill, and projecting forwardly therefrom is a series of vertically disposed webs 2 which form a skeleton platform frame. Formed

integral with the forward ends of these webs 2 is the buffer beam 3 of the usual box shape, and positioned on top of the central portion of said beam is a threshold plate 4.

5 designates the buffing member which normally occupies a position immediately in front of the buffer beam 3, and positioned on top of said buffing member is a plate 6 which is adapted to slide beneath the threshold plate 4. The buffing member 5 is carried by the forward ends of a center buffer stem 7, and a pair of side buffer stems 8, all of which stems are arranged to slide freely through corresponding openings 9 formed through the front and rear walls of the buffer beam 3.

10 designates a pair of vertically disposed walls which extend longitudinally between the central portions of the end sill 1 and beam 3, and between these walls are located the springs and follower plates of the center buffing mechanism. Formed integral with the upper and lower edges of these walls 10 and extending outwardly therefrom are horizontally disposed strengthening flanges 11. A horizontally disposed plate 12, which, if desired, may be perforated, is formed integral with the upper edges of the walls 10 and covers the rear portion of the space between said walls, and a corresponding horizontally disposed plate 13, which, if desired, may be perforated, is formed integral with the walls 10 a short distance below said plate 12, thus forming a housing between the rear portions of said walls 10, and in which housing the center buffing spring pockets 14 are formed. These pockets are separated by a vertically disposed wall 15 which extends the entire length of the plates 12 and 13, and the rear end of said wall 15 is formed integral with the transversely disposed wall 16 located adjacent the end wall 1, and which forms a bearing for the rear ends of the center buffing springs. Bearing ribs 17 are formed integral with the inner faces of the walls 10, and these ribs serve as bearings for the ends of the spring follower plates and for the sides of the center buffing springs located within the pockets 14.

18 designates horizontally disposed inwardly projecting flanges which are formed integral with the upper portions of the walls 10, and extend forwardly from the front

end of the top plate 12, said flanges terminating a short distance from the rear wall of the buffer beam 3 in order to provide ample space between the forward ends of the walls 10 through which the follower plates and leaf springs of the buffing mechanism may be inserted into the space between the walls 10 in front of the spring pockets 14. Corresponding flanges 19 are formed integral with the inner faces of the walls 10 and extend forward from the bottom plate 13 to the rear wall of the beam 3, and formed on the tops of these flanges 19 are bearing ribs 20 upon which the spring follower plates and the leaf springs engage. Positioned in each pocket 14 is a small coiled spring 21 surrounded by a larger and longer coiled spring 22, and the forward ends of the springs 22 project a short distance beyond the front ends of the pockets 14. 23 designates a follower plate having a concave front face, which plate is arranged for sliding movement of the bearing ribs 20 immediately in front of the springs 22, and during the backward and forward movement of this follower plate these ends bear against and are guided by the ribs 17. 24 designates a series of leaf springs which are positioned immediately in front of the follower plate 23 with their ends resting upon the ribs 20, and positioned in front of these leaf springs is a follower plate 25 having a convex rear surface. Formed in the front side of the follower 25 is a pocket or recess 26 in which the rear end of the central follower stem 7 engages.

The forward portions of the side stems 8 or those portions which operate through the beam 3 are preferably square or non-circular in cross section, and the rear portions of said stems are round in cross section, as designated by 8^a, and the extreme rear ends of said rear round portions project through openings formed in transversely disposed walls 27 which latter are formed integral with the walls 10 and adjacent webs 2. Located on the rear ends of the rounded portions 8^a of the stems and to the rear of the walls 27 are ends 28.

29 designates side buffer springs which are located upon the rounded rear portions 8^a of the side stems with their rear ends bearing against the walls 27 and their forward ends against the shoulders 30 formed between the rounded rear portions of the side stems and the square or non-circular front portions.

Under normal conditions the side buffer springs 29 and the springs 22 hold the buffer 5 at its outward limit of movement, and when said buffer is moved toward the beam 3, during the coupling of two cars, the springs 21 and 22 together with the leaf springs 24 combine to yieldingly resist the inward movement of the buffer and buffing

mechanism until said buffer has been moved to a point where the coupling of the cars is effected.

In addition to the natural resiliency of the leaf springs 24 considerable friction is developed between the leaves of said spring during the rearward movement of the buffer and buffing mechanism, and by utilizing this form of leaf spring it is not necessary to provide extra heavy coil springs in the central portion of the buffing mechanism.

The bearing ribs 17 and 20 perform the function of guides for the center buffing springs and the ends of the followers and leaf springs, and if necessary, these ribs may be readily ground off or chipped away to provide an accurate working fit for the various moving parts of the buffing mechanism.

The construction herein described is comparatively light in weight, is very strong and rigid, and the entire buffing mechanism can be easily and quickly placed in operative position upon the platform or removed therefrom without detaching the vestibule or the buffer from its stems, and therefore said construction is especially advantageous when it is necessary to make repairs.

It will be readily understood that minor changes in the size, form and construction of the various parts of our improved buffing mechanism can be made and substituted for those herein shown and described without departing from the spirit of our invention, the scope of which is set forth in the appended claims.

We claim:

1. In a buffing mechanism of the class described, a cast metal platform, an end sill and buffer beam integral therewith, a pair of vertically disposed, longitudinally extending walls forming a part of the skeleton platform, there being spring pockets formed between the rear portions of the walls, supporting flanges formed on the inner faces of the front portions of said walls, flanges projecting inwardly from the upper edges of the front portions of the walls, and which flanges terminate a short distance to the rear of the buffer beam to provide an opening whereby parts of the buffing mechanism are positioned between the vertical walls.

2. In a buffing mechanism of the class described, a cast metal platform, an end sill, a buffer beam integral therewith, a pair of vertically disposed longitudinally extending walls forming a part of the skeleton platform; outwardly projecting flanges integral with the upper and lower edges of said walls, spring pockets formed between the rear portions of said walls, supporting flanges formed on the inner faces of said walls in front of the spring pocket, follower plate bearing ribs formed on

said supporting flanges, longitudinally disposed bearing ribs formed on the inner faces of the plates above the supporting flanges and inwardly projecting flanges on the upper edge of said plates which flanges terminate a short distance to the rear of the buffer beam.

In testimony whereof we hereunto affix

our signatures in the presence of two witnesses, this 6th day of September, 1911.

CHARLES T. WESTLAKE.
CHARLES F. FREDE.

Witnesses:

HAL C. BELLVILLE,
FRED W. DIECKMANN.