

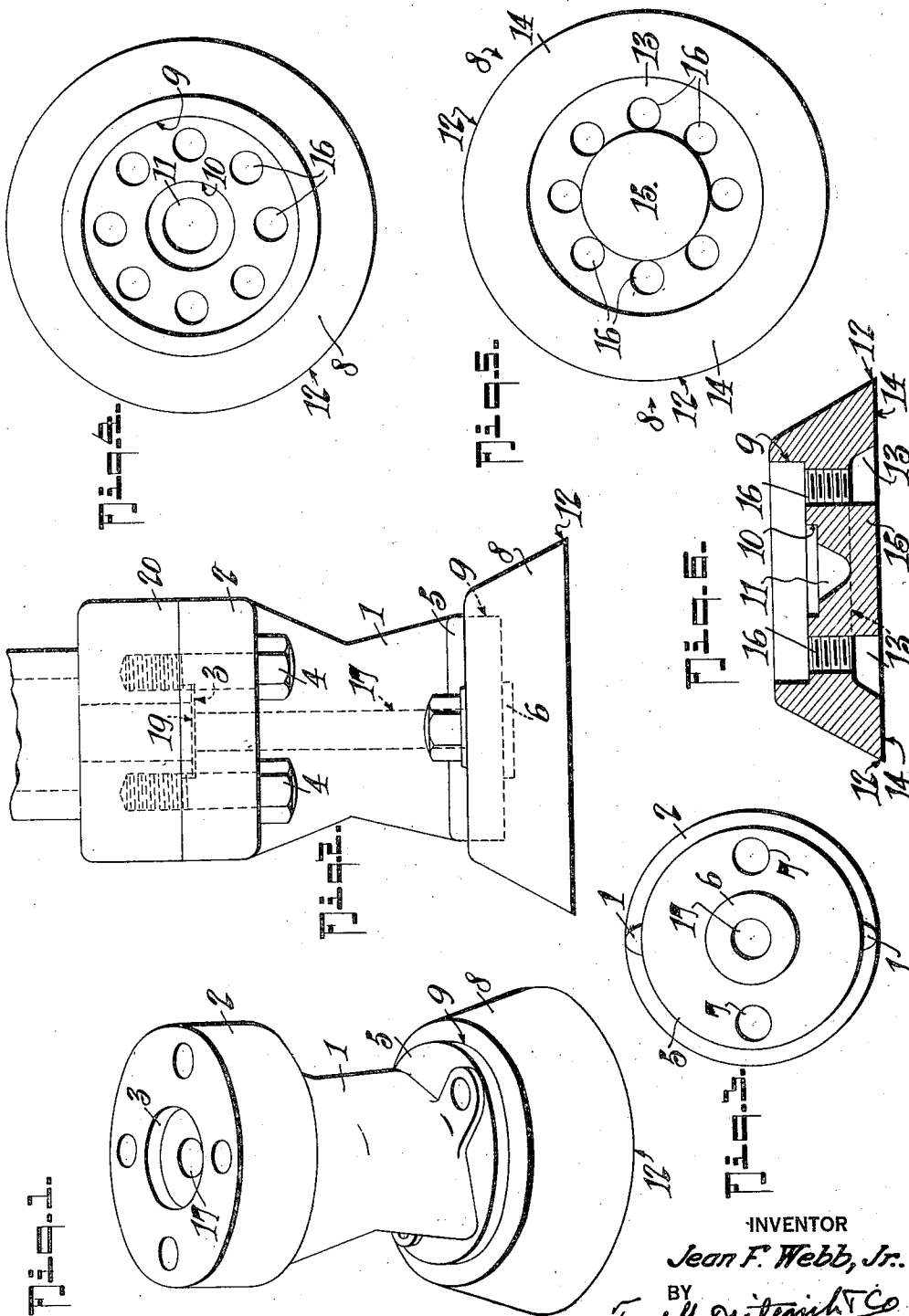
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J. F. WEBB, JR

PLUNGER SHOE

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INVENTOR

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UNITED STATES PATENT OFFICE.

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PLUNGER SHOE.

Application filed December 30, 1922. Serial No. 609,866.

To all whom it may concern:

Be it known that I, JEAN F. WEBB, Jr., a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Plunger Shoes, of which the following is a specification.

This invention relates to certain new and useful improvements in the plow and contact shoes of train stopping apparatus and it is especially adapted to apparatus of the type employing a plunger to effect mechanical engagement and electrical contact with a ramp. More specifically considered the object of the invention is to improve the construction of shoe shown in my United States Patent No. 1,145,283, issued July 6, 1905.

Generically the present invention comprises a shank adapted to be secured in one position to the lower end of the train stop plunger and a circular sole plate adapted to be secured in any of several positions of adjustment around its axis to the lower end of the shank whereby the life of the sole plate is greatly increased and renewal of the shank is made unnecessary under ordinary conditions of service.

In its more detailed nature, the invention resides in those novel features of construction, combination and arrangement of parts, all of which will be first fully described, then be specifically pointed out in the appended claims and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of the shoe assembled.

Figure 2 is a side elevation showing the same secured to a plunger.

Figure 3 is a face view of the bottom of the shank.

Figure 4 is a top plan view of the sole plate.

Figure 5 is an inverted plan view of the same.

Figure 6 is a vertical section of the sole plate.

In the drawings, in which like letters and numerals of reference indicate like parts in all of the figures, 1 designates the shank which comprises a longitudinal web that joins an upper cylindrical base 2 with a lower cylindrical base 5. The base 2 has a locating recess 3 to fit on the locating boss 19 of the plunger 20 to which the base is

secured by cap screws 4 passing through four holes in the base 2. The lower base 5 has a locating boss 6 and two holes 7 for the attaching screws to the sole plate 8.

The base 5 is circular and fits a circular bore 9 in the top of the shoe plate 8. The shoe plate has a counterbore 10 to receive the locating boss 6 and it also has a pocket 11, as shown.

The sole plate 8 is of frustro conical form with its larger end down to present a sharp cutting edge 12 to the direction of travel at all times so as to clear the ramp of snow, ice and other débris. It has a circular groove 13 in its bottom face which divides it into a ring-like contacting surface 14 and a central circular face 15, the diameter of which is, in practice, preferably equal to the width of the ramp rail (not shown) with which the shoe engages.

Eight screw holes 16 allow the plate 8 to be given four adjustments around its axis to compensate for wear before the shoe plate need be renewed. The shank 1 has a longitudinal duct 17 to convey train line air from the plunger 20 to the pocket 11 through the shank so that should the attaching screws become loose or should the shank or sole plate break or wear through, train line air will be released to set the brakes.

From the foregoing description, taken in connection with the accompanying drawing, it is thought the complete construction and advantages of my invention will be readily apparent to those skilled in the art to which the invention relates.

What I claim is:

1. A shoe for train stop plungers comprising a shank having a base, a sole plate secured to the shank and having a circular groove in its bottom face and having a circular cutting edge.

2. A shoe for train stop plungers comprising a shank having a base, a sole plate secured to the shank and having a circular groove in its bottom face and having a circular cutting edge, said sole plate being of frustro conical form and recessed to receive said shank face.

3. A contact shoe comprising a shank having an upper base and a lower base, means connecting the upper base to a plunger, said lower base being cylindrical and having screw holes, a sole plate recessed to receive said lower base, said sole plate being cir-

cular in outline, said lower base and said sole plate having screw receiving holes, those of the plate being multiples of those of the base whereby the plate may be adjusted
5 around the ends of the shank for purposes of wear.

4. A contact shoe comprising a shank having an upper base and a lower base, means connecting the upper base to a plunger, said
10 lower base being cylindrical and having screw holes, a sole plate recessed to receive said lower base, said sole plate being circu-

lar in outline, said lower base and said sole plate having screw receiving holes, those of the plate being multiples of those of the
15 base whereby the plate may be adjusted around the ends of the shank for purpose of wear, said plate having a circuitous groove in its bottom to provide an outer contact surface and an inner contact sur-
20 face the width of the inner contact surface approximating that of the track ramp with which the shoe is adapted to engage.

JEAN FRANCIS WEBB, JR.