

(No Model.)

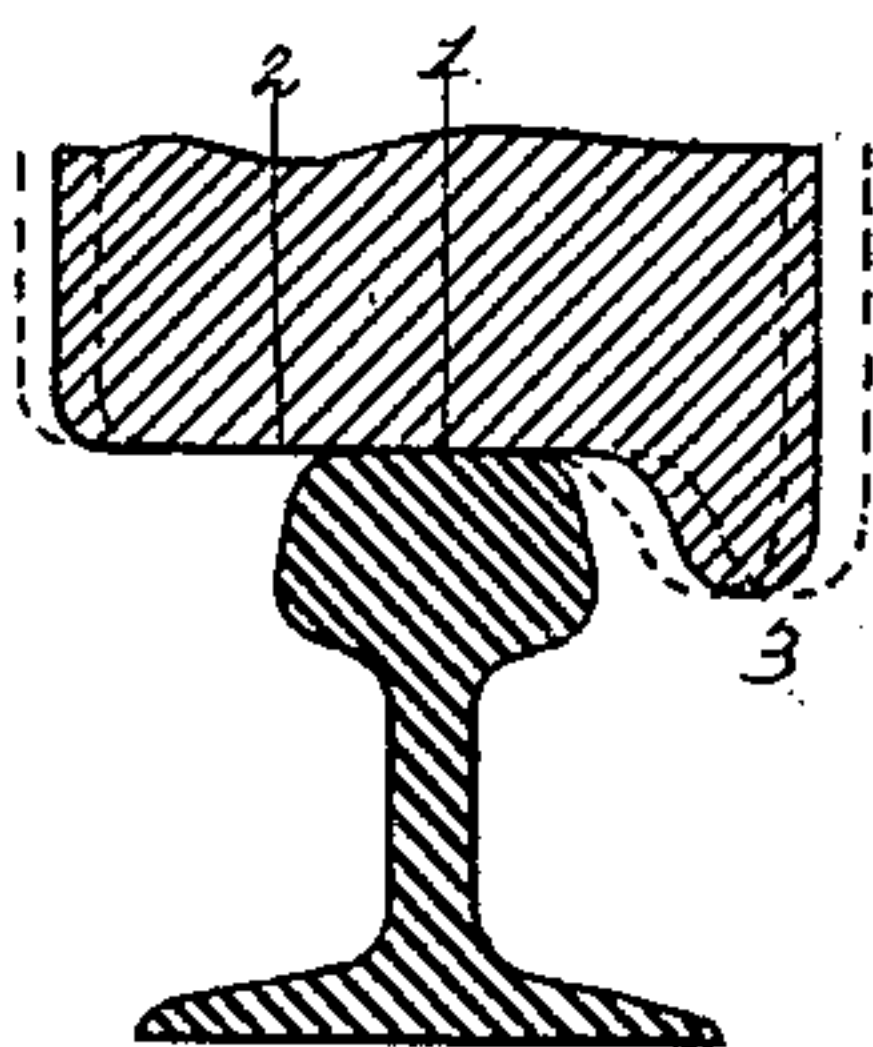
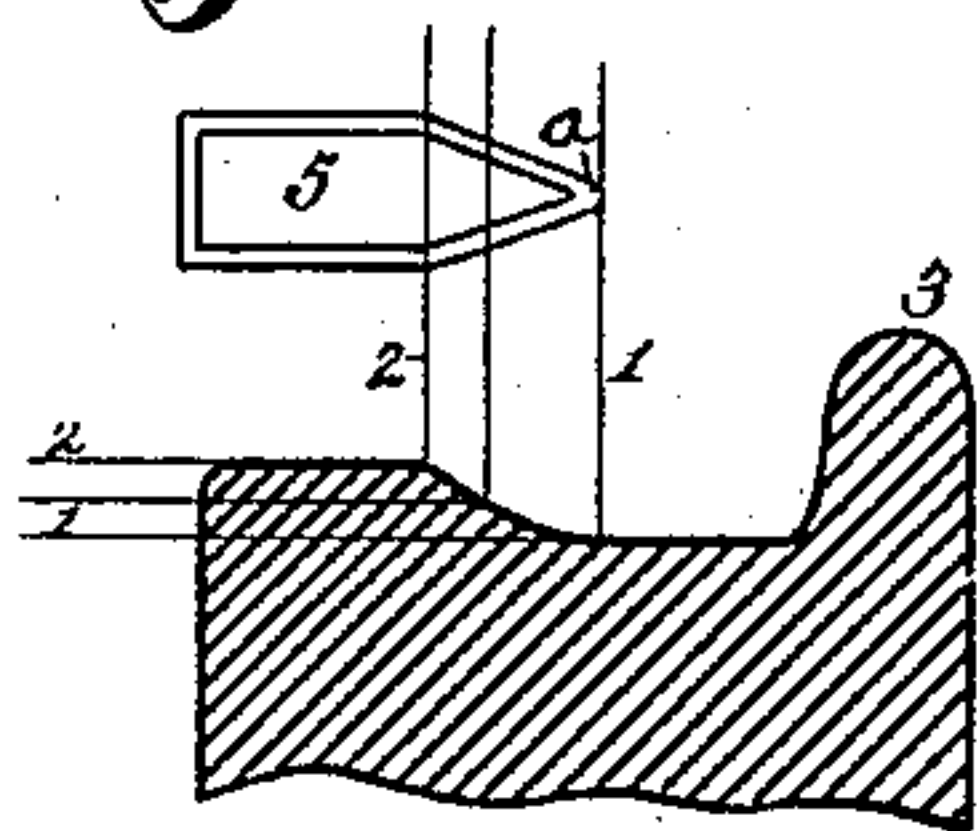
J. MEEHAN.

CAR BRAKE AND WHEEL DRESSER.

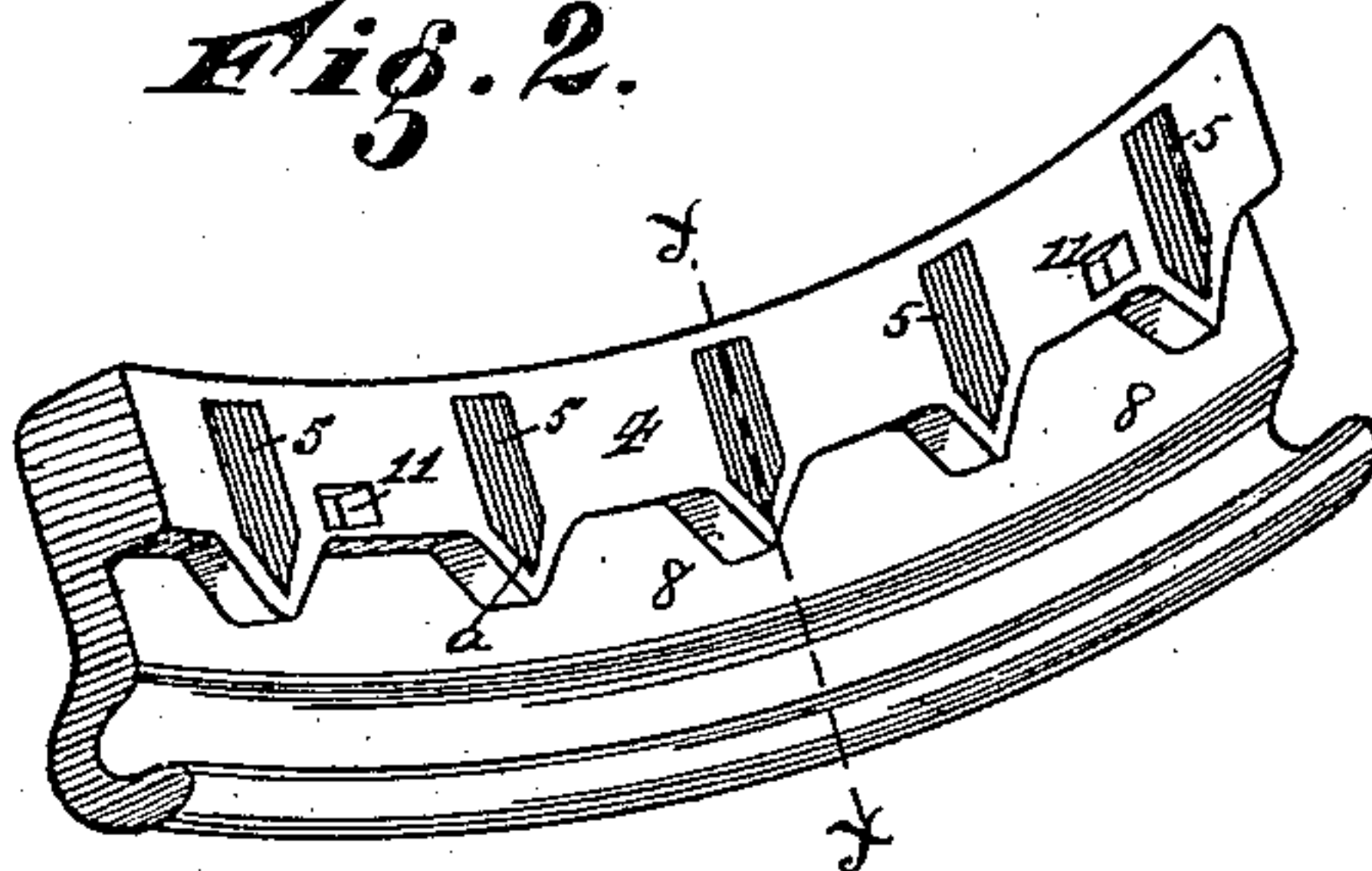
No. 354,725.

Patented Dec. 21, 1886.

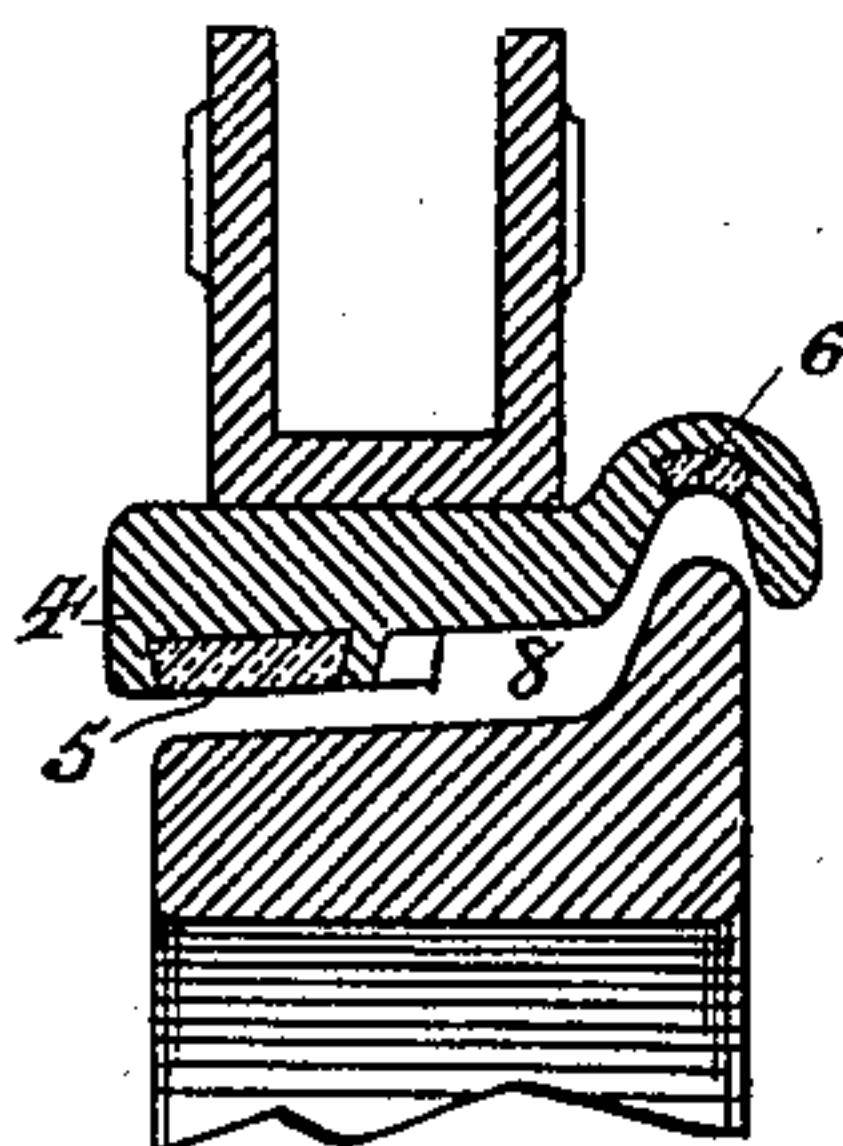
*Fig. 1.*



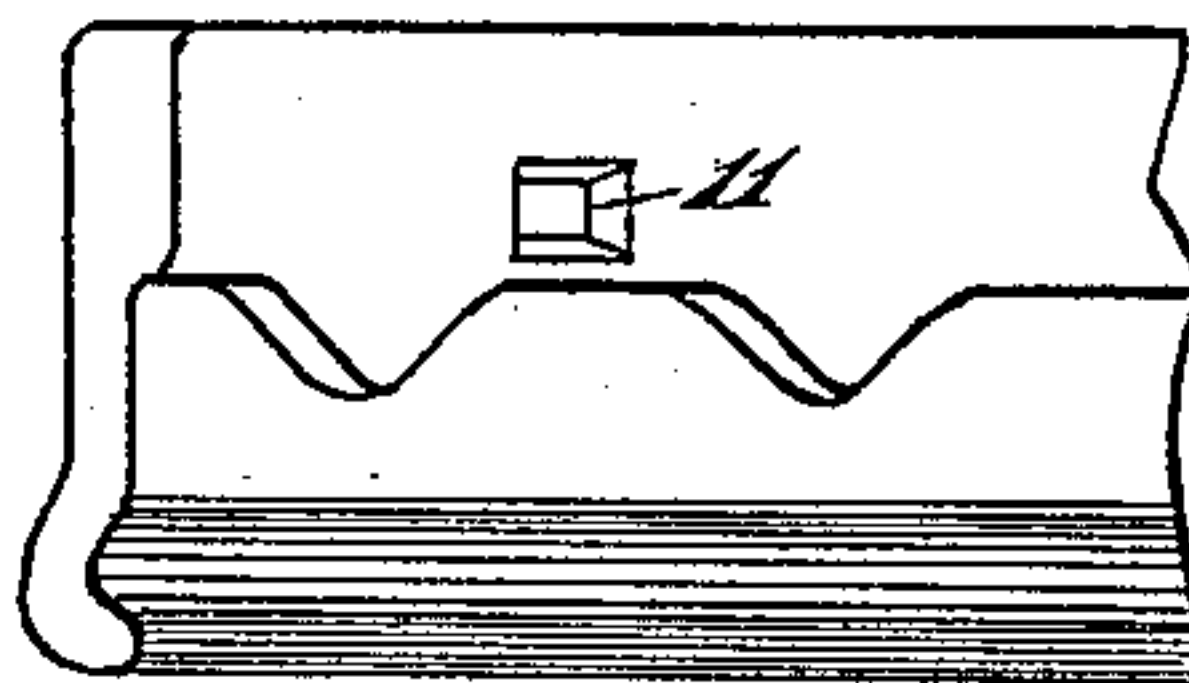
*Fig. 2.*



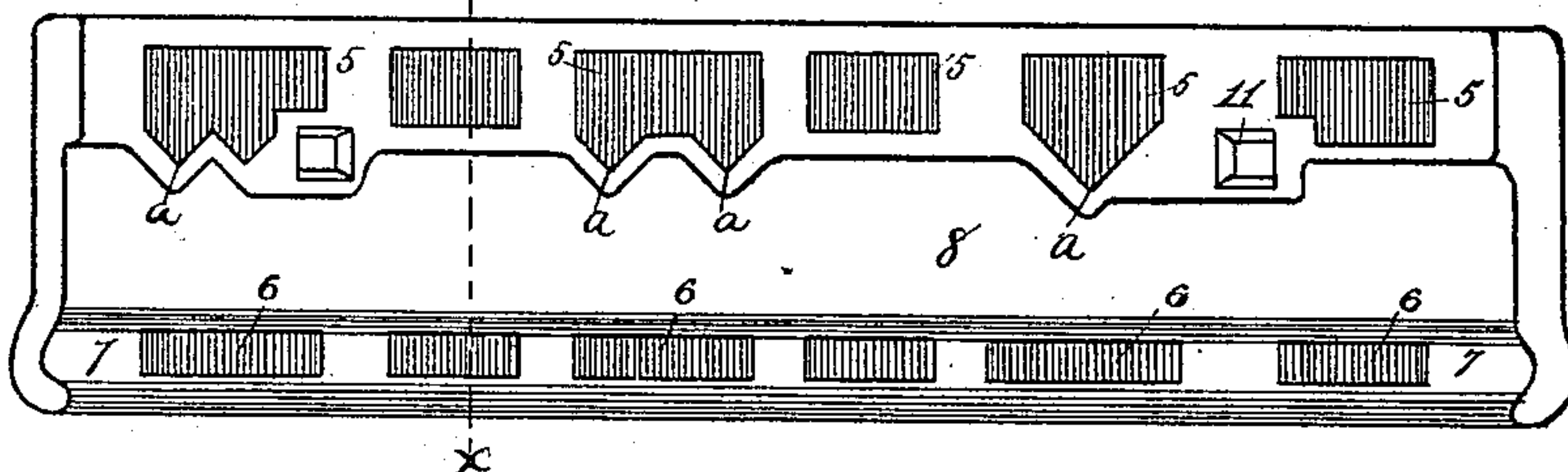
*Fig. 4.*



*Fig. 7.*

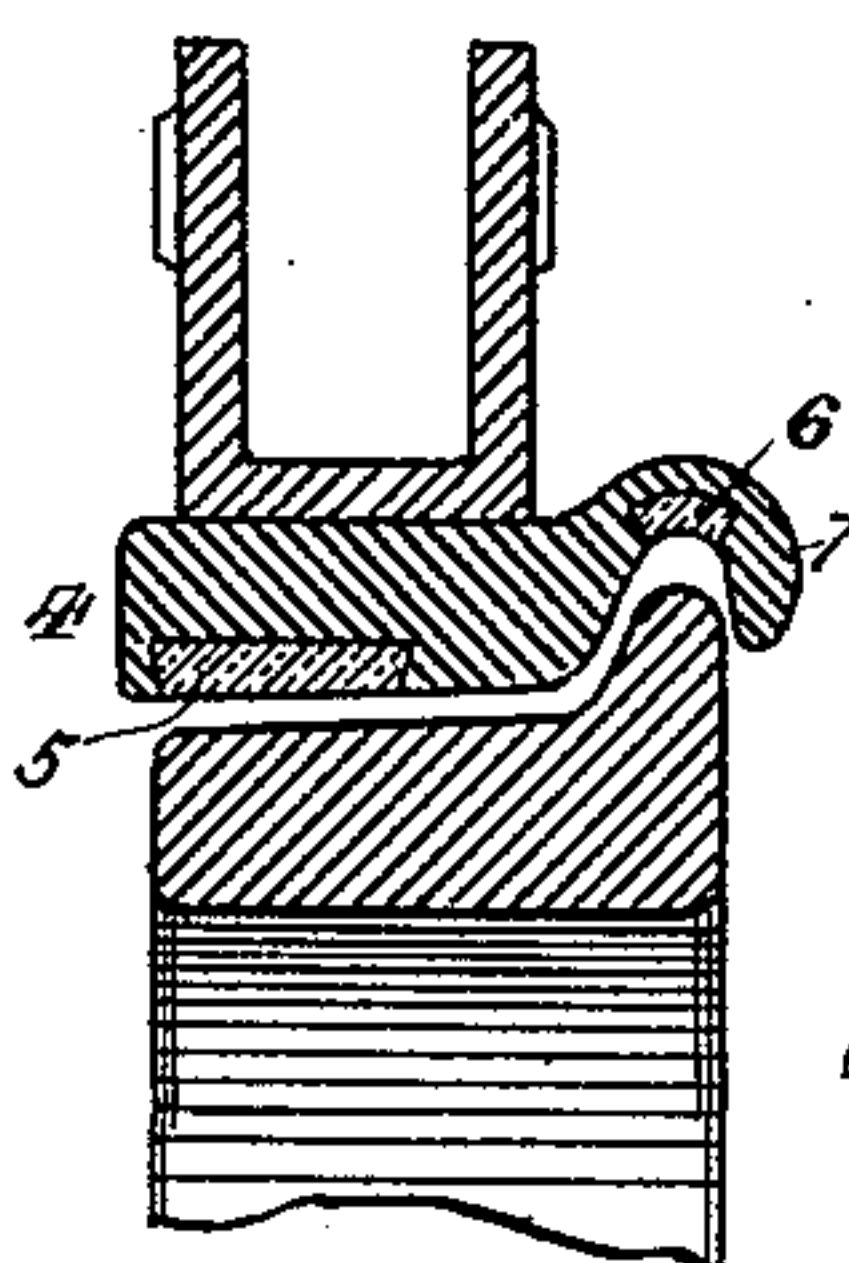
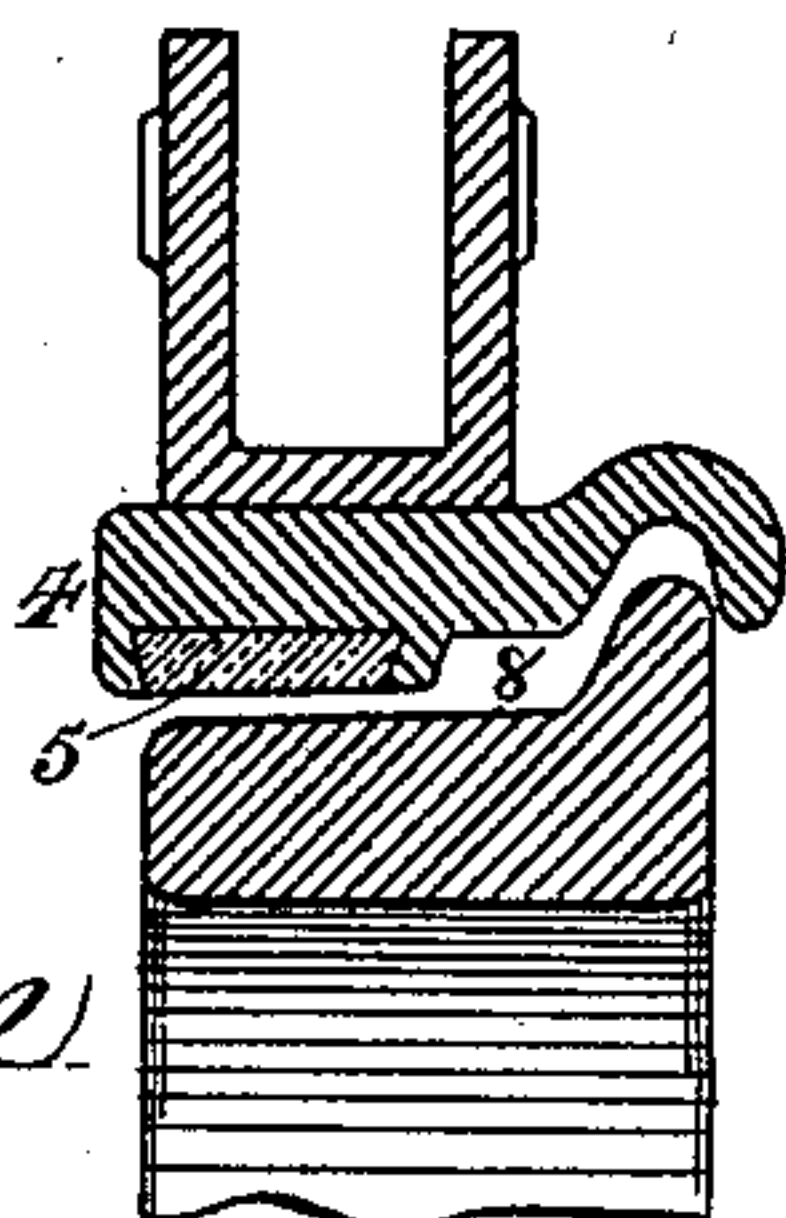


*Fig. 5.*



*Fig. 5.*

*Fig. 6.*



Attest

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# UNITED STATES PATENT OFFICE.

JAMES MEEHAN, OF COVINGTON, KENTUCKY.

## CAR-BRAKE AND WHEEL-DRESSER.

SPECIFICATION forming part of Letters Patent No. 354,725, dated December 21, 1886.

Application filed October 18, 1886. Serial No. 216,601. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES MEEHAN, a resident of Covington, in the county of Kenton and State of Kentucky, have invented certain new and useful Improvements in Car-Wheel Brake-Shoes and Dressers, of which the following is a specification.

My invention relates to a combined brake-shoe and car-wheel dresser.

One of the objects of my invention is to provide a cutting-surface in the face of the brake-shoe, so as to quickly dress worn-down wheels.

Another object of my invention is to preserve the shape of the face of the wheel by dressing off that part of the tread which does not come in contact with the rail, the cutting-surfaces being so shaped that they prevent the wearing of a shoulder between the central line of tread and the portion not in contact with the rail.

The various features of my invention will be specifically set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a diagram of sections of the wheel and of the rail, illustrating the ordinary wear upon the face of the wheel and the position of the improved cutting-section. Fig. 2 is a perspective view of the face of the shoe, with my improved cutting-surfaces arranged to dress the inner portion of the periphery of the wheel. Fig. 3 is a plan view showing a modification of the face of the brake shown in Fig. 2. Fig. 4 is a section on line *xx*, Fig. 3. Fig. 5 is a section on line *yy*, Fig. 2, showing the section of the frame holding the shoe. Fig. 6 represents a modification of Fig. 5, having groove 8 filled with metal and cutting-sections in the flange-groove. Fig. 7 represents a modified form of shoe-dresser.

In the construction of railroad car-wheels, and the method of mounting them upon their axle, it is customary to provide a lateral movement of the wheels upon the track. Suppose the gage of the road to be four feet eight and one-half inches, the gage of the wheels as mounted upon their axles between the points of contact are from one-half to seven-eighths of an inch narrower than the gage of the track, and the face of the car-wheels is made enough wider to overcome all irregularities and to provide for this lateral movement. This lateral

movement of the wheels upon the rails causes the face of the wheels to be worn in a convex or inclined form, as shown between the points 1 and 2 in Fig. 1, the wheel sometimes treading close up to the point 1, which is one extreme of the lateral play, and at other times being in contact only at the point 2, and at other times between the two, the greatest amount of wear being outside of point 2, between it and the flange 3 of the wheel. The lower section represents the section of the wheel, showing the tread-line of the wheel before it is worn. In order to preserve this line, I provide a brake-shoe the face of which is provided with cutting-sections and the remaining portion of the face of the shoe of softer material, for strength and support and to increase the frictional contact of the face of the shoe with the periphery of the track-wheel.

I prefer to make the face of the shoe of cast metal and the cutting-sections of steel or corundum. 4 represents the soft or main portion of the face of the dressing-shoe. 5 represents the hard-cutting sections. In order that that portion of the face of the wheel between the points 1 and 2, shown in Fig. 1, may be dressed or kept down, so as to preserve the original line of the tread of the wheel, I taper the outer end of the cutting-sections 5, as shown at *a*. 11 represents bolt-holes for securing the shoe to the frame. The length of the taper of these cutting-sections corresponds approximately to the difference in gage between the car-wheels and rails, which equalizes the wearing or cutting away of the tread between the points 1 and 2, so that it will correspond in contour with the tread of the wheel, or, in other words, so that the original line of the tread of the wheel will be maintained by this graduation or tapering of the cutting-sections.

It is obvious that the point of the cutting-sections *a* has much less wearing material than the corresponding wider portion, hence wears faster and cuts the face of the wheel more slowly. This is an improvement upon the method of alternating long and short sections, shown in my application No. 212,102, filed August 28, 1886, and allowed September 20, 1886.

In Fig. 2 I have shown the cutting-sections in the inner face of the shoe only, while in Fig. 3 I have shown the cutting-sections 6 in the



groove of the shoe, which embraces the flange of the wheel, as well as on the face of the shoe.

The preferred form of making my dresser is to have cutting-sections 6 in the groove 7, as well as cutting-sections 5 upon the adjacent face of the shoe.

In Figs. 2, 3, 4, 5, I have shown a groove, 8, opposite the tread of the wheel, while in Fig. 6 this space is filled with soft or wearing metal. The latter is the preferred form, as it furnishes more wearing-surface for ordinary uses of a combined shoe-brake and dresser; but in many instances when it is desired to dress wheels down rapidly the form shown in Figs. 2, 3, 4, 5 is preferred, as the friction of the brake is all provided at the points adjacent the cutting-sections and outside of the tread-section of the shoe.

Fig. 3 shows a further modification, in which the cutting-sections are wider in cross-section, with two of the long sections provided with two taper points, *a a*, instead of one, and the alternate dresser-sections 10 are not pointed. Either of these forms is preferred when vulcanized corundum or other similar cutting material is put in. The sections being larger, are less liable to break or crumble off; but when steel cutting-surfaces are employed the form shown in Fig. 2 is preferred.

Fig. 7 represents another modification of my improved brake-shoe and dresser, in which the shoe is made of cast-steel or other hard-cutting material of sufficient strength to resist strains,

and the shoe is provided with a groove, 8, formed longitudinally in the face of the shoe adjacent to the tread of the wheel, a portion of which is, however, filled with taper or pointed cutting projections, so as to dress off properly that portion of the wheel which has partial wear in the lateral space indicated between the points 1 and 2 of Fig. 1.

I have illustrated my invention as applied to the ordinary car-wheel. It is obvious that locomotive driving-wheels are included in this description.

I claim—

1. In a car-wheel-dressing brake-shoe, one or more cutting-sections pointed at their inner ends and placed on the inner face of the shoe, substantially as and for the purpose specified.

2. In a car-wheel brake-shoe, cutting-sections laid flush with the face of the brake, having one or more points at their inner end and alternate shorter cutting-sections, 10, substantially as and for the purpose specified.

3. A combined car-wheel brake-shoe and dresser having a groove in the face adjacent to the tread of the wheel and one or more taper cutting-sections projecting into said groove, substantially as specified.

In testimony whereof I have hereunto set my hand.

JAMES MEEHAN.

Witnesses:

HARTWELL CABELL,  
E. E. WOOD.