No. 704,525. Patented July 15, 1902.

M. B. EATON.

FLANGER.

(Application filed Sept. 24, 1900.)

(No Model.)

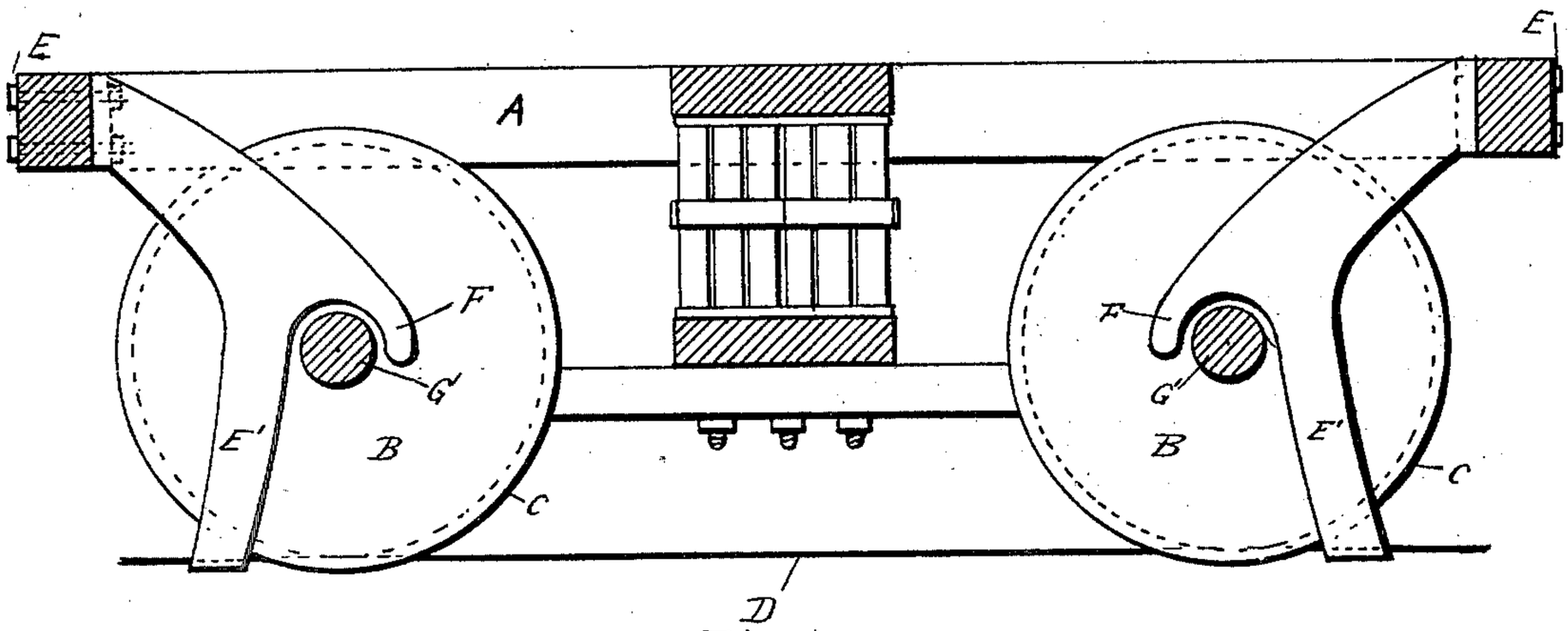

Fig. 1.

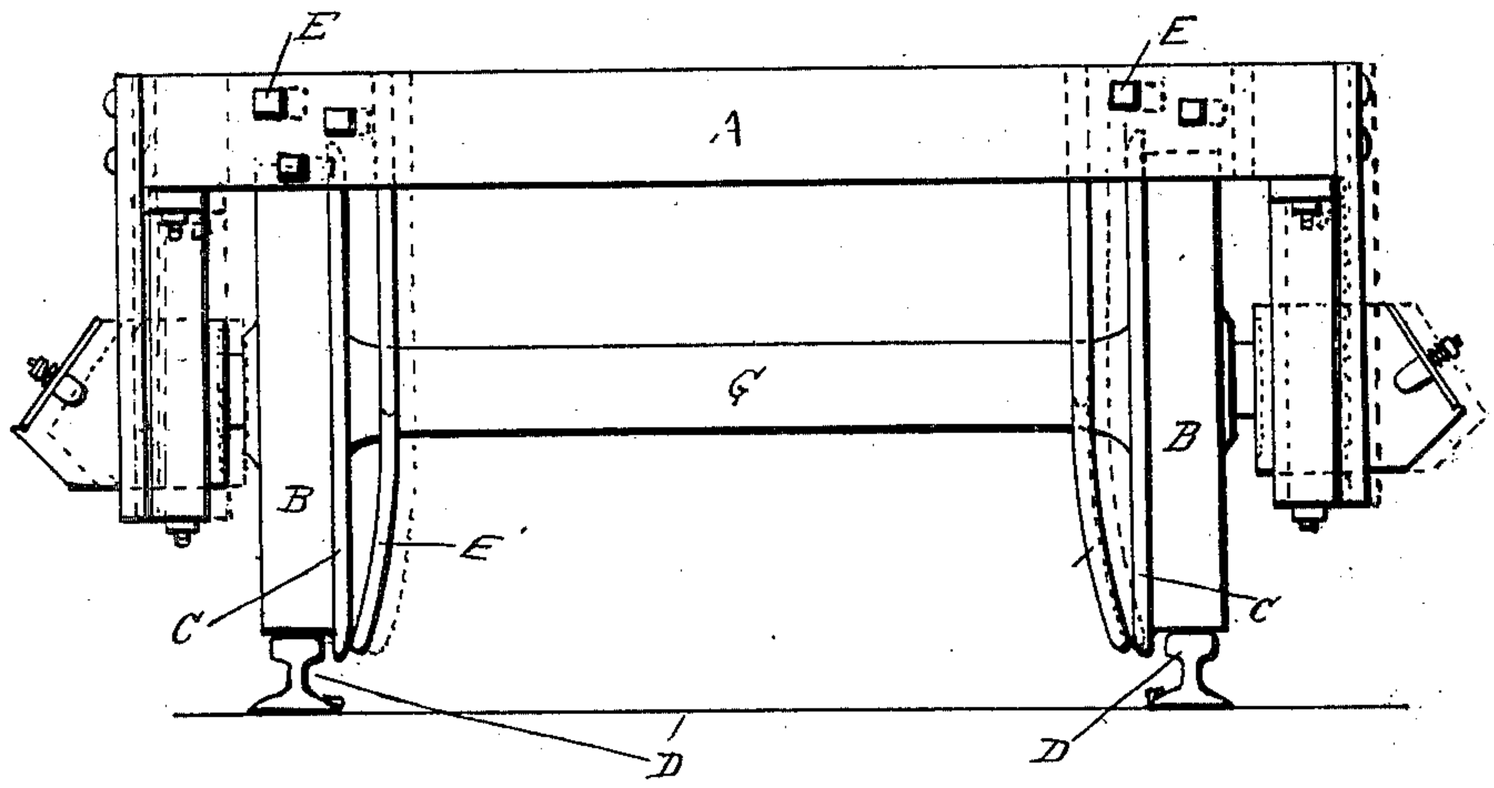

Fig. 2.

Fig. 3.

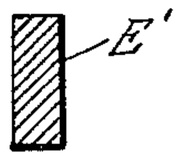

Fig. 4.

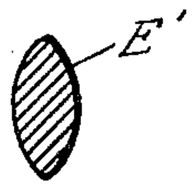

Fig. 5.

Witnesses.
Marion Richards.
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UNITED STATES PATENT OFFICE.

MATTHIAS B. EATON, OF BOSTON, MASSACHUSETTS.

FLANGER.

SPECIFICATION forming part of Letters Patent No. 704,525, dated July 15, 1902.

Application filed September 24, 1900. Serial No. 30,907. (No model.)

To all whom it may concern:

Be it known that I, MATTHIAS B. EATON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Flangers; and I do hereby 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.

My invention relates to improvements in flangers, and has special reference to flangers used on railway-trucks whether said trucks are designed to travel over T-rails or flat rails; and my invention resides in the special construction of the flanger and in its location with respect to the wheels of the truck.

In the drawings herewith accompanying and making a part of this application, Figure 1 is a central sectional view of so much of the truck-frame and trucks as shows the application of the flanger thereto. Fig. 2 is an end view of the same, and Figs. 3, 4, and 5 are horizontal sectional views of different styles of flangers.

Same letters of reference indicate like parts.

In said drawings, A represents the truck-frame; B, the wheels; C, the flange of the wheel, and D the track. Rigidly secured to the end beams of the truck-frame in any convenient manner, as by means of bolts E, is a flanger E′, which extends diagonally toward the center of the truck-frame and downwardly, the lower end of the flanger terminating below the horizontal plane of the top of the track, but not so low as the extreme bottom of the flange of the wheel. The lower extremity of the flanger is curved outwardly and into the path of the flange and is located in front of a perpendicular passing through the axle G, but as near the tread of the wheel as may be. The flanger may be made of spring metal, so as to yield laterally to accommodate lateral movement of the truck-frame relative to the wheels. The flanger may also extend downwardly in close proximity to the axle, but normally out of contact therewith, so that if the flanger meets with any obstruction sufficient to overcome its resistance it will simply be bent down upon the axle of the wheel and be supported thereby, the axle being still free to turn, it only being necessary to overcome the friction. The flanger may have any desired cross-sectional shape, diamond, rectangular, or curved, as illustrated in Figs. 3, 4, and 5.

The operation of my improved flanger is as follows: When the wheels are running on a comparatively smooth track, the flanger on either side precedes the flange of the wheel, cutting a path therefor through ice, snow, or other obstructions near the track. If the car sways and the truck-frame moves laterally relative to the wheels, the flanger is prevented from striking the track by reason of its contacting with the flange of the wheel, as shown in dotted lines in Fig. 2, and remains in contact until the truck-frame returns to its normal position.

The advantages of my improved flanger are that it always cuts a path for the flange and that it is so close to the tread of the wheel that it will always take switches and curves in the track substantially the same as the wheel itself.

Having thus described my invention and its use, I claim—

1. The combination with a truck-frame, of a spring-metal flanger secured to said frame and extending down at the side of the wheel and terminating near the tread but slightly in front thereof, the lower end being free and inclined slightly into the path of the flange of the wheel, and adapted to yield transversely to the truck-frame.

2. The combination with a truck-frame, of a spring-metal flanger secured thereto extending downwardly by the side of the wheel, the lower extremity terminating below the horizontal plane of the track near but in front of the tread of the wheel, said lower end being inclined slightly toward or into the path of the flange of the wheel.

3. The combination with a truck-frame, of a flanger secured thereto and extending downwardly normally out of contact with the

axle of the wheel, but when under tension adapted to engage the axle which then serves as a brace, the lower extremity of said flanger terminating in front of the tread of the wheel and inclined more or less into the path of the flange of the wheel.

In testimony whereof I affix my signature, in presence of two witnesses, this 17th day of September, 1900.

MATTHIAS B. EATON.

Witnesses:
WM. E. MOSER,
H. A. MERRILL.