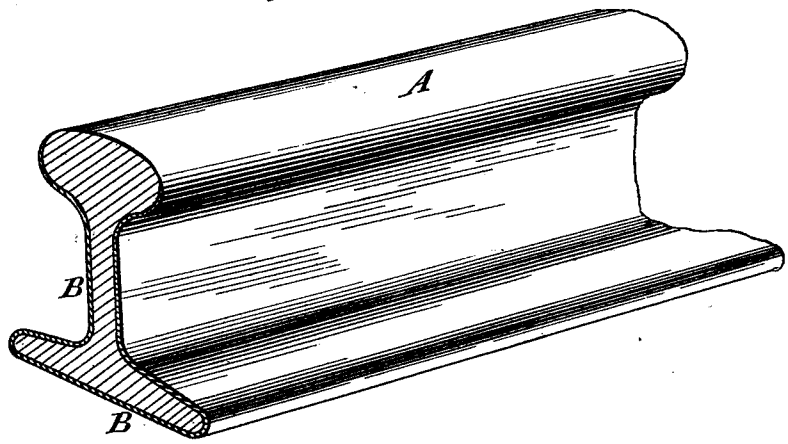
E. RIDER.

Deadening Noise on Railroads.

No. 229,641. Patented July 6, 1880.

Fig. 1.



Witnesses.

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EMORY RIDER, OF NEW YORK, N. Y.

DEADENING NOISE ON RAILROADS.

SPECIFICATION forming part of Letters Patent No. 229,641, dated July 6, 1880.

Application filed October 3, 1878.

To all whom it may concern:

Be it known that I, EMORY RIDER, of the city, county, and State of New York, have invented a new and useful method of preventing or stifling the noise caused by the contact of the wheels of rolling stock and the rails of railroads, of which the following is a specification.

This invention relates to a method of preventing or stifling the noise caused by passing rolling-stock over railroads.

It is well known that, owing to the sonorous character of the material out of which the rails of railroads are made, they are caused, when trains are passing over them, to emit a ringing sound, which is very annoying, and which has the effect to disturb the inhabitants, and especially the sick, who live upon the lines of elevated railroads in cities and places where the tracks are elevated above the earth to any considerable extent.

My present invention has for its object the prevention of the offensive noise caused as above described; and to this end it consists in covering iron or steel rails with a longitudinally-continuous soft-metal non-sonorous jacket, which is also continuous around the rail below the under side of the tread.

In the drawing which accompanies this there is shown by Figure 1 a section of a rail, A, having upon its base, web, and a portion of its head a sheet of metal, B, which, by preference, is made of lead or of some alloy of lead, but which may be of brass, copper, zinc, or any other non-sonorous metal.

In the case presented the lead is supposed to be soldered to the under portions of the head of the rail, and thus secured in position thereon; but it may be attached in any other convenient manner. This metal should be from one-sixteenth ($\frac{1}{16}$) to one-eighth ($\frac{1}{8}$) of an inch in thickness, but may be more or less, if found desirable.

It is not necessary that the covering metal should be in actual contact with the rail in all of its parts, as if it bears upon the head and base the desired result will be obtained.

I desire it to be understood that I do not limit my invention to the method of attaching the metal to the rails, and that while I give lead the preference on account of its effectiveness, cheapness, and facility for application I do not limit my improvement to its use, but reserve the right to use any kind of non-sonorous metal or any that will prevent the noise and trouble described when so applied to rails as to secure such result.

I am aware that lead has heretofore been placed under the ends and other bearing-points of railroad-rails, and I am also aware that strips of lead have been attached to the sides and webs of rails; but all of these arrangements differ from mine in the essential fact that they do not sufficiently inclose the rails to prevent the atmosphere from coming in contact with them to such an extent as to allow the vibrations thereof to cause sound-waves, which are free to travel to any distance to which their force will impel them, while in the method practiced by me the entire surface of the rail, except the portion with which the wheels come in contact and the points where they bear upon the chairs and the ties, is covered, as a consequence of which the sound-waves are entirely prevented.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

An iron or steel rail covered with a longitudinally-continuous non-sonorous soft-metal jacket, which is also continuous around the rail below the under side of the tread, substantially as shown, and for the purpose set forth.

EMORY RIDER.

Witnesses:

JOHN C. HERSEY,

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