Oct. 12, 1926. 1,602,813

W. G. DAVIS

ANTICREEPING DEVICE

Filed Feb. 23, 1926

Fig. 1.

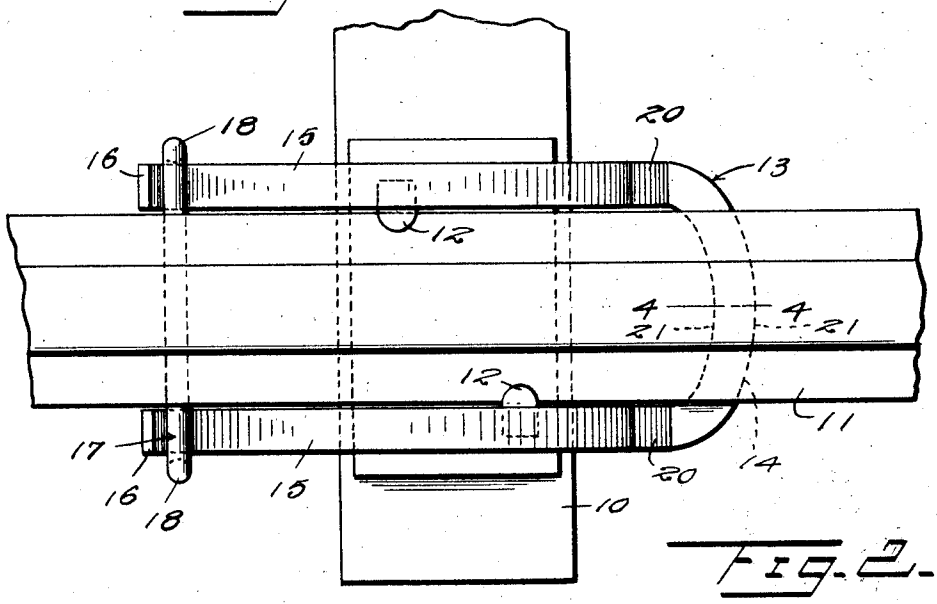


Fig. 2.

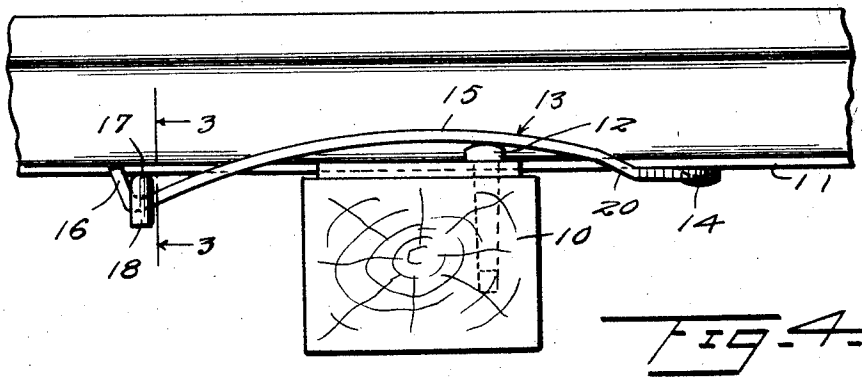


Fig. 4.

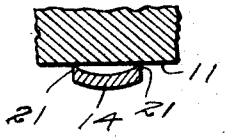
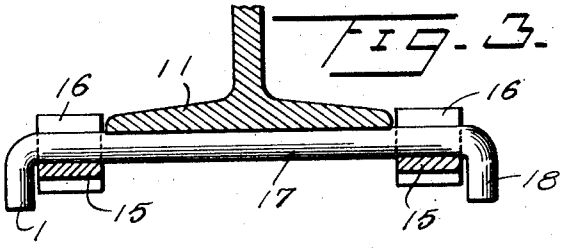


Fig. 3.



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Patented Oct. 12, 1926. 1,602,813

UNITED STATES PATENT OFFICE.

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ANTICREEPING DEVICE.

Application filed February 23, 1926. Serial No. 90,194.

This invention relates to an anti-creeping device and more particularly to a device of this character for application to railroad rails to prevent longitudinal shifting thereof.

An important object of the invention is to produce a device of this character which not only prevents the rail from shifting longitudinally, but also serves to prevent the spikes for retaining the rail in position upon the tie from becoming loosened and lost.

A further object of the invention is to produce a device of this character which may be very readily applied to the rail, which will be durable and efficient in service and a general improvement in the art.

These and other objects I attain by the construction shown in the accompanying drawing, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

Figure 1 is a plan view showing an anti-creeping device constructed in accordance with my invention applied to a rail;

Figure 2 is a side elevation thereof;

Figure 3 is a section on the line 3—3 of Figure 2;

Figure 4 is a sectional view through the bight of the anti-creeping element.

Referring now more particularly to the drawings, the numeral 10 generally designates a tie and 11 the base of a rail seated upon the tie and held in position upon the tie by spikes 12 engaging opposite sides of the base and embedded in the tie.

In accordance with my invention, I provide a U-shaped element 13, the bight portion 14 of which is adapted to transversely underlie the rail base 11 at one side of the tie. The arms 15 of the U are spaced apart a distance equal to or very slightly greater than the distance between opposite side edges of the base and in the applied position of the anti-creeper parallel the edges of the base and overlie the heads of the spikes 12 which retain the rail in position upon the tie. The free ends of the arms 15 are provided with upturned portions 16 and after the bight portion has been positioned beneath the rail and the arms are resting upon the heads of the spikes, these arms are forced downwardly until the upper surfaces thereof are arranged below the level of the lower face of the base. A retaining element 17 is then inserted between the lower face of the rail base and the upper faces of the arms to hold the arms in their flexed position. This retaining element consists of a straight length of material of a length slightly greater than the distance between outer faces of the arms 15 and has at its ends downturned portions 18 which, in the applied position of the retaining element, engage the outer faces of the arms to prevent dislodgment of the retaining element.

It will be obvious that a device of this character may be very cheaply constructed, as it is capable of production from any suitable resilient material and may be produced by stamping. In order to reduce the resistance of the arms to flexing or rather to reduce the distance through which the arms must be flexed in order to apply the retaining element, these arms may be slightly offset adjacent their bight portions, as indicated at 20. In the applied position of the device, the retaining element and bight portion both serve to frictionally engage with the under surface of the base of the rail and thus to prevent any longitudinal displacement of the rail, and it will, of course, be obvious that the tension of the arms against the spike heads will effectually prevent elevation of these spikes or longitudinal shifting thereof with respect to the rail. If the edges of the bight portion are slightly sharpened, as illustrated, the upper edges 21 will tend to dig into the under surface of the base and further assist in preventing dislodgment of the rail. It will also be obvious that in considering the U-shaped element as a whole, one of the arms may be considered as a means for retaining a certain spike against shifting movement while the other of the arms merely serves to assist in retaining the first named arm in position.

Since the construction hereinbefore set forth is capable of a certain range of change and modification without materially departing from the spirit of the invention, I do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

1. In combination with a tie, a rail in position thereon and spikes for retaining the rail in position upon the tie, an anti-creeper element having portions frictionally engaging the base of the rail at opposite sides of the tie and other portions engaging the heads of the spikes to constantly urge the same toward the tie.

2. In combination with a tie, a rail in po-

sition thereon and spikes for retaining the rail in position upon the tie, resilient members paralleling the rail and abutting the heads of the spikes intermediate their ends, the ends of said resilient elements being downwardly flexed at opposite sides of the tie and connections between corresponding ends of the flexible elements passing beneath and frictionally engaging with the base of the rail.

3. In combination with a tie, a rail in position thereon and spikes for retaining the rail in position upon the tie, an anti-creeping element comprising a U-shaped member the bight portion of which passes beneath the base of the rail at one side of the tie and the arms of which parallel the edges of the rail and overlie the heads of the spikes and a connection between the free ends of the arms passing beneath the rail at the opposite side of the tie from the bight of the member and flexing said free ends downwardly.

4. In combination with a tie, a rail in position thereon and spikes for retaining the rail in position upon the tie, an anti-creeping element comprising a U-shaped member the bight portion of which passes beneath the base of the rail at one side of the tie and the arms of which parallel the edges of the rail and overlie the heads of the spikes and a connection between the free ends of the arms passing beneath the rail at the opposite side of the tie from the bight of the member and flexing said free ends downwardly, said arms adjacent the bight portion being slightly offset upwardly.

5. In combination with a tie, a rail in position thereon and spikes for retaining the rail in position upon the tie, an anti-creeping element comprising a U-shaped member the bight portion of which passes beneath the base of the rail at one side of the tie and the arms of which parallel the edges of the rail and ovelie the heads of the spikes and a connection between the free ends of the arms passing beneath the rail at the opposite side of the tie from the bight of the member and flexing said free ends downwardly, said connection being in the form of a bar having portions coacting with the arms to prevent longitudinal displacement of the connection.

6. In combination with a tie, a rail in position thereon and spikes for retaining the rail in position upon the tie, an anti-creeping element comprising a U-shaped member the bight portion of which passes beneath the base of the rail at one side of the tie and the arms of which parallel the edges of the rail and overlie the heads of the spikes and a connection between the free ends of the arms passing beneath the rail at the opposite side of the tie from the bight of the member and flexing said free ends downwardly, the free ends of the arms having upturned angular portions providing retaining elements for said connection.

7. In combination with a tie, a rail in position thereon and spikes for retaining the rail in position upon the tie, an anti-creeping element comprising a U-shaped member the bight portion of which passes beneath the base of the rail at one side of the tie and the arms of which parallel the edges of the rail and overlie the heads of the spikes and a connection between the free ends of the arms passing beneath the rail at the opposite side of the tie from the bight of the member and flexing said free ends downwardly, said connection being in the form of a bar having portions coacting with the arms to prevent longitudinal displacement of the connection, the free ends of the arms having upturned portions providing retaining elements for said connection.

8. In combination with a tie, a rail in position thereon and spikes for retaining the rail in position upon the tie, an anti-creeping element comprising a U-shaped member the bight portion of which passes beneath the base of the rail at one side of the tie and the arms of which parallel the edges of the rail and overlie the heads of the spikes and a connection between the free ends of the arms passing beneath the rail at the opposite side of the tie from the bight of the member and flexing said free ends downwardly, said connection being in the form of a bar having portions coacting with the arms to prevent longitudinal displacement of the connection, the free ends of the arms having upturned portions providing retaining elements for said connection, said arms adjacent the bight portion being slightly upwardly offset.

In testimony whereof I hereunto affix my signature.

WILLIAM G. DAVIS.