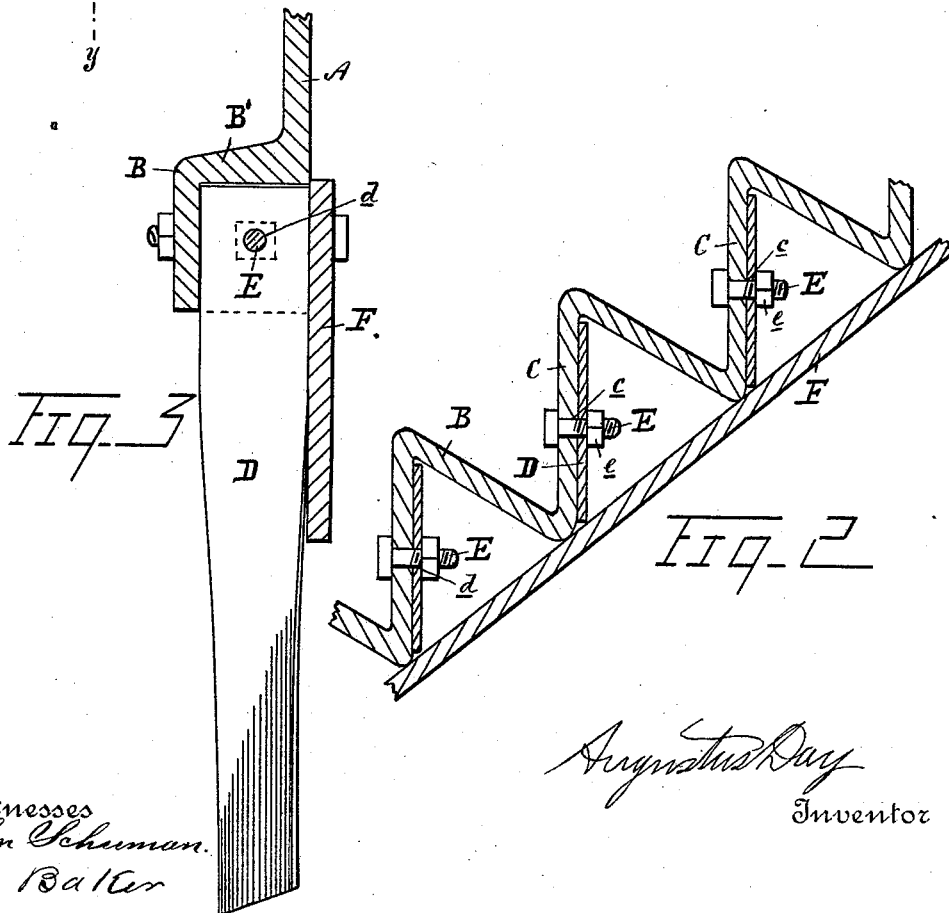
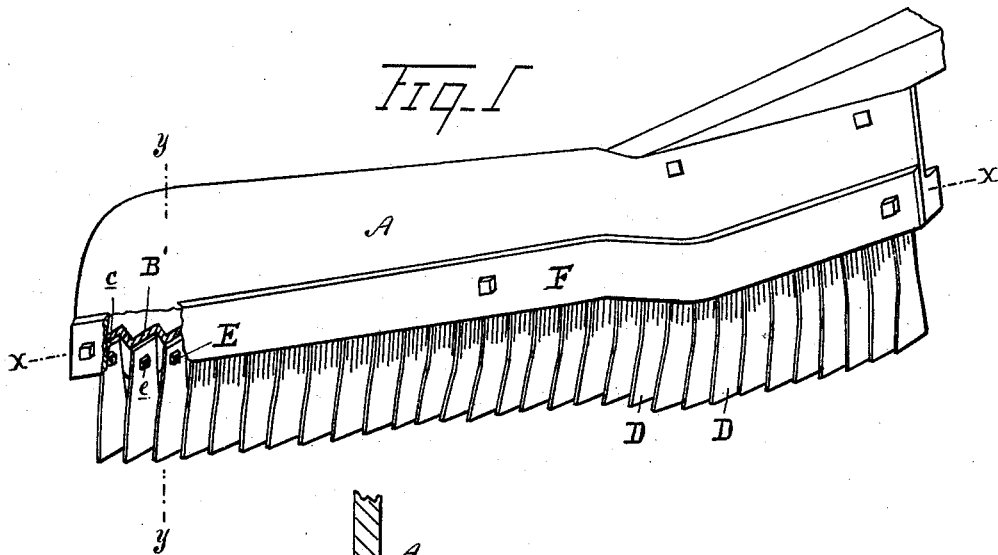


(No Model.)

A. DAY.
TRACK CLEANER.

No. 420,639.

Patented Feb. 4, 1890.



Witnesses
John Schuman.
Jay Butler

Augustus Day
Inventor

UNITED STATES PATENT OFFICE.

AUGUSTUS DAY, OF DETROIT, MICHIGAN.

TRACK-CLEANER.

SPECIFICATION forming part of Letters Patent No. 420,639, dated February 4, 1890.

Application filed August 9, 1889. Serial No. 320,196. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS DAY, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Track-Cleaners; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to that class of track-cleaners which are attached to a street-railway car and removes the snow, sleet, ice, or mud from the rail by sweeping its surface.

The object of my invention is to so construct the blade or scraper of the track-cleaner that it shall present a springing edge to the surface of the rail, which will remove all the snow, sleet, ice, or other obstruction which may be upon it, but more particularly such as would be passed over or left on the rail by the ordinary snow plow or scraper, and also to provide means to readily change the working-blades of the scraper which are in contact with the rail whenever such change may be required, and to prevent the clogging of the blade by snow or ice.

It consists in forming the lower edge of the blade or scraper of the track-cleaner of a series of independent spring-blades; in so constructing each particular blade that while its upper end is at right angles with the rail its lower end, which rests upon the rail, shall stand diagonally to the rail, so as to throw any obstacle outwardly from the track; in making the lower edge sectional, yet continuous; in the means to readily remove or replace any of the spring-blades when necessary; in the means for preventing the clogging of the spring-blades with snow and ice, and in the particular construction, arrangement, and combination of the several parts, as herein-after more particularly set forth.

Figure 1 is a perspective view of the front of my scraper with a portion of the main blade and the covering-plate broken away, showing the connection of the spring-blades with the main blade. Fig. 2 is a plan view of the bottom of the main blade on the line $x x$ in Fig. 1. Fig. 3 is a vertical sectional view through the line $y y$ in Fig. 1, showing the spring-blade.

In the drawings, A represents the main blade of my track-cleaner, which is attached by means of a proper draw-bar and diagonal brace to the bottom of a car.

B is a serrated or notched flange projecting backwardly and forming the lower edge of the main blade of my scraper or track-cleaner. These serrations or notches form the shoulders C C, which are perforated at c for the passage of the bolt E.

D D are spring-blades, perforated at d for the passage of the bolt E, by which, with the nut e , they are firmly secured to the shoulders C C. As the main blade of my track-cleaner stands diagonally to the rail, the shoulders C C should stand at right angles to the rail. The shoulders C C being at right angles with the line of the rail, the flat sides or faces of the spring-blades, when secured to the shoulders, will also be at right angles with the rail. This position of the upper end of the spring-blade permits the lower and free portion to move forward or backward in a direction parallel with the rail. As it is necessary that the face of the lower end of the spring-blade should be parallel with the main blade and stand diagonally to the rail, a twist of one-eighth of a turn in its length is given to the spring-blade. This twist gives the spring-blade a movement diagonal to the rail. Thus the motion of the free end of the spring-blade will be backward and sidewise in one direction and forward and sidewise in the reverse direction. As these shoulders and spring-blades are arranged after the first, each behind and at one side of the preceding one, and a less distance apart than the width of the spring-blades, the spring-blades at the bottom overlap each other in turn. The first blade, on meeting an obstacle, springs back against the second, the second against the third, and so on through the series. When the first has passed or removed the obstacle, it springs back into place, and the others follow in turn, so that in removing an obstacle from the track the lower ends of these spring-blades overlap and form a continuous blade, yet each acts separately and independently of the others.

B' is a flange or rib on the back side of the main blade, forming the cap and brace for the notches or serrations of the lower edge of

the blade. This rib is cast integral with the blade and the serrations.

F is an auxiliary or covering blade bolted on the front side of the main blade and extending over and below the notched edge of the main frame, so as to cover the upper portion of the spring-blades and to protect that portion from the snow and ice which might pack in between them and impede their action.

What I claim as my invention is—

1. In a track-cleaner, the combination of the main blade of the scraper with the overlapping spring-blades forming the lower edge of the scraper, substantially as described.

2. In a track-cleaner, the combination of the main blade of the scraper with the overlapping spring-blades forming the lower edge of the scraper, and the means for connecting them together, substantially as described.

3. In a track-cleaner, the combination of the main blade of the scraper with the twisted

spring-blades forming the lower edge of the scraper, and the means for connecting them, substantially as described.

4. In a track-cleaner, the combination of the main blade with the spring-blades, the means for connecting the spring-blades to the main blade, and the covering-blade, all substantially as and for the purposes set forth.

5. In a track-cleaner, the combination of the rigid upper portion of the blade of the scraper with the overlapping sectional spring-blades of the lower edge, substantially as set forth.

6. In a track-cleaner, the combination of the main blade of the scraper with the sectional spring-blades on the lower edge and the covering-plate bolted to the front of the main blade, substantially as described.

AUGUSTUS DAY.

Witnesses:

JAY BAKER,

JOHN N. FULLER.