

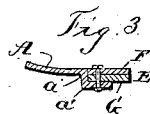
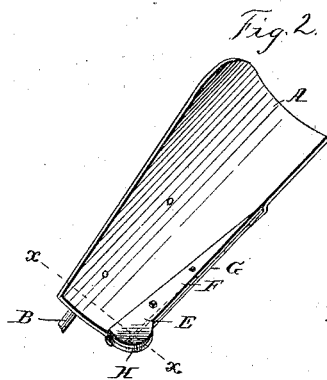
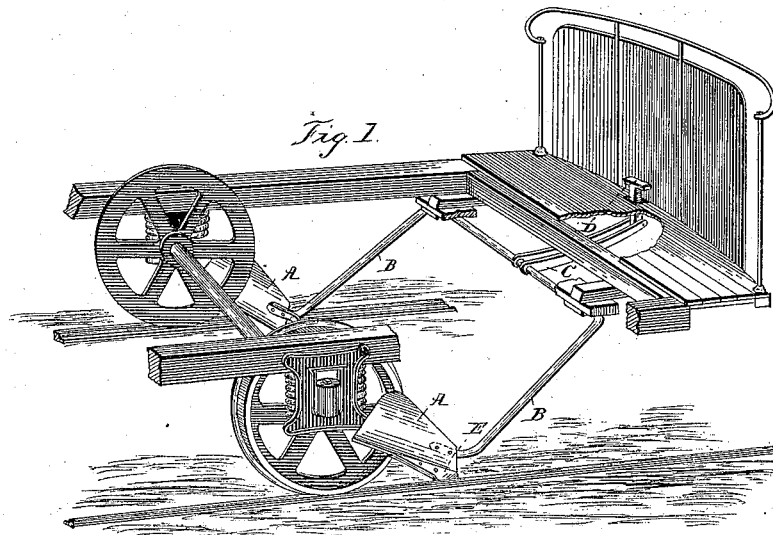
(No Model.)

H. H. LITTELL.

TRACK SCRAPER.

No. 385,062.

Patented June 26, 1888.



Witnesses,  
Edwin L. Bradford.  
Frank Dorian.

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# UNITED STATES PATENT OFFICE.

HARDIN H. LITTELL, OF LOUISVILLE, KENTUCKY.

## TRACK-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 385,062, dated June 26, 1888.

Application filed October 31, 1887. Serial No. 253,862. (No model.)

*To all whom it may concern:*

Be it known that I, HARDIN H. LITTELL, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Track-Scrapers for Railroads, of which the following is so full, clear, and exact a description as will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the front portion of a car-platform provided with a scraper embodying my invention. Fig. 2 is a detail view of my improved scraper-blade. Fig. 3 is a transverse vertical section of my improved blade, taken on the line XX of Fig. 2.

The object of my invention is to provide a track-scraper which shall effectually dig up and throw out any foreign matter which may accumulate on or near the rail to such an extent as to interfere with the movement of the car-wheels over the rail or to derail the car as it is passing along the track.

Another object of my invention is to provide a scraper-blade for track-scrapers which will effectually do the work of clearing the track without liability of injury to the track or to the scraper-blade.

Another object of my invention is to provide an improved removable shoe for the scraper-blade of a device of the character above described.

With these general objects in view I proceed to accomplish the same by constructing and arranging the parts as will be hereinafter fully described in connection with the accompanying drawings, which form a part of this specification.

Throughout the accompanying illustrations the main blade of the scraper is designated by the letter A. This blade A is secured to a rock-shaft, B, which is operated by a lever-arm, C, attached to a foot-piece, D, which is secured to the platform in the usual way, as is fully described in the application of H. M. Littell, filed February 6, 1886, Serial No. 191,035, which is referred to here as a cross-reference, as required by the rules of practice of the Patent Office. The blade A in the present case tapers slightly toward the front

and is made concavo-convex in cross-section. This curve in the scraper admirably adapts it for use in any connection and imparts to the particles of debris which are stirred up by the agitator a rotary motion, which, taken together with the momentum given to them by the action of the scraper in moving along the track, causes the particles to roll well up and back away from the rails and track. The blade A is depressed at *a*, where the material of which the blade is made is bent at an angle to the general line of the face of the blade, and slightly beyond this bend *a* is a second bend, *a'*, where the material of which the blade is formed again runs parallel with the face of the blade proper in a plane somewhat below or beyond the plane of the face of the main portion of the blade. By bending the blade as described, and as shown in detail in Fig. 3, a recess is formed, into which I fit a removable shoe, E. This shoe E is made of a hard piece of steel on the outside, which I letter F, and of a soft piece of iron or steel on the inside, which I letter G. This shoe is made of sufficient thickness to bring its face up flush with the face of the blade A, forming a smooth mold-board as an entirety, as will be clearly seen by reference to the drawings. This removable shoe E is made of hard and soft material, combined in the manner shown and described, for the purpose of giving additional strength and durability to the shoe, to prevent accidental breaking of the shoe, and to provide a shoe which, by reason of its construction, will not be seriously and instantly affected by a blow which it may receive while in use.

Experience has taught that a removable shoe for scrapers made of a solid piece of steel is objectionable for the following reasons: First, it is liable to break as soon as it comes into violent contact with any obstruction along the track; second, its face being brittle and its rear lower edge being entirely uncushioned and unsupported by any soft or yielding material, the shoe is liable to chip and break from the slightest causes. It is with a view to obviating these disadvantages that I have constructed the device which is made the subject of this application.

I do not wish to be understood as limiting myself to the exact shape and construction shown in the drawings, as it is obvious that

these details might be changed without departing from the spirit of my invention and without destroying its usefulness.

5 The agitator H is slightly curved or dished, as will be clearly seen by reference to Fig. 2. This adapts it better to its use and serves to more effectually throw the débris from the line of the track.

10 Having now described the objects, uses, advantages, and construction of my device, what I believe to be new, and desire to secure by Letters Patent, and what I therefore claim, is—

15 1. In a scraper of the character described, the main blade, in combination with the removable shoe, which shoe is made of alternate layers of hard and soft material, substantially as and for the purposes specified.

20 2. In a scraper of the character described, the main scraper-blade, depressed as described, in combination with a removable shoe made

of alternate layers of hard and soft material, the hard material on the outside or front of the shoe, substantially as and for the purposes specified.

3. As a new article of manufacture, a removable shoe for scraper-blades, constructed, substantially as described, with alternate layers of hard and soft material, as and for the purposes set forth.

4. As a new article of manufacture, a detachable shoe for scrapers made of alternate layers of hard and soft material and provided with a curved or dished agitator, substantially as and for the purposes specified.

35 In testimony whereof I affix my signature in the presence of two witnesses.

HARDIN H. LITTELL.

Witnesses:

J. M. PETTUS,

C. G. HAYDON.