

(No Model.)

W. H. ROBERTSON.

RAIL SCRAPER FOR STREET AND OTHER RAILWAYS.

No. 324,731.

Patented Aug. 18, 1885.

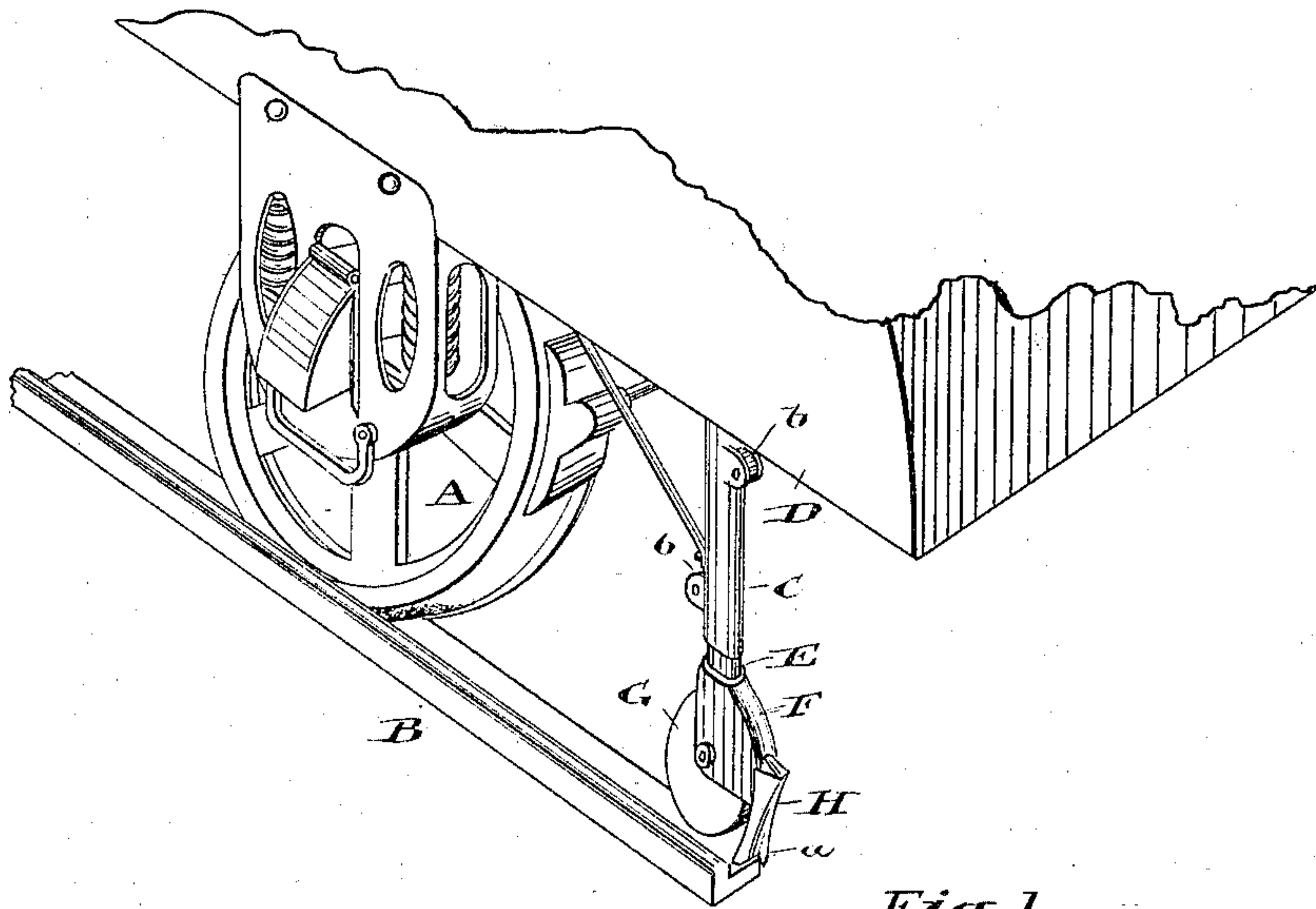


Fig. 1.

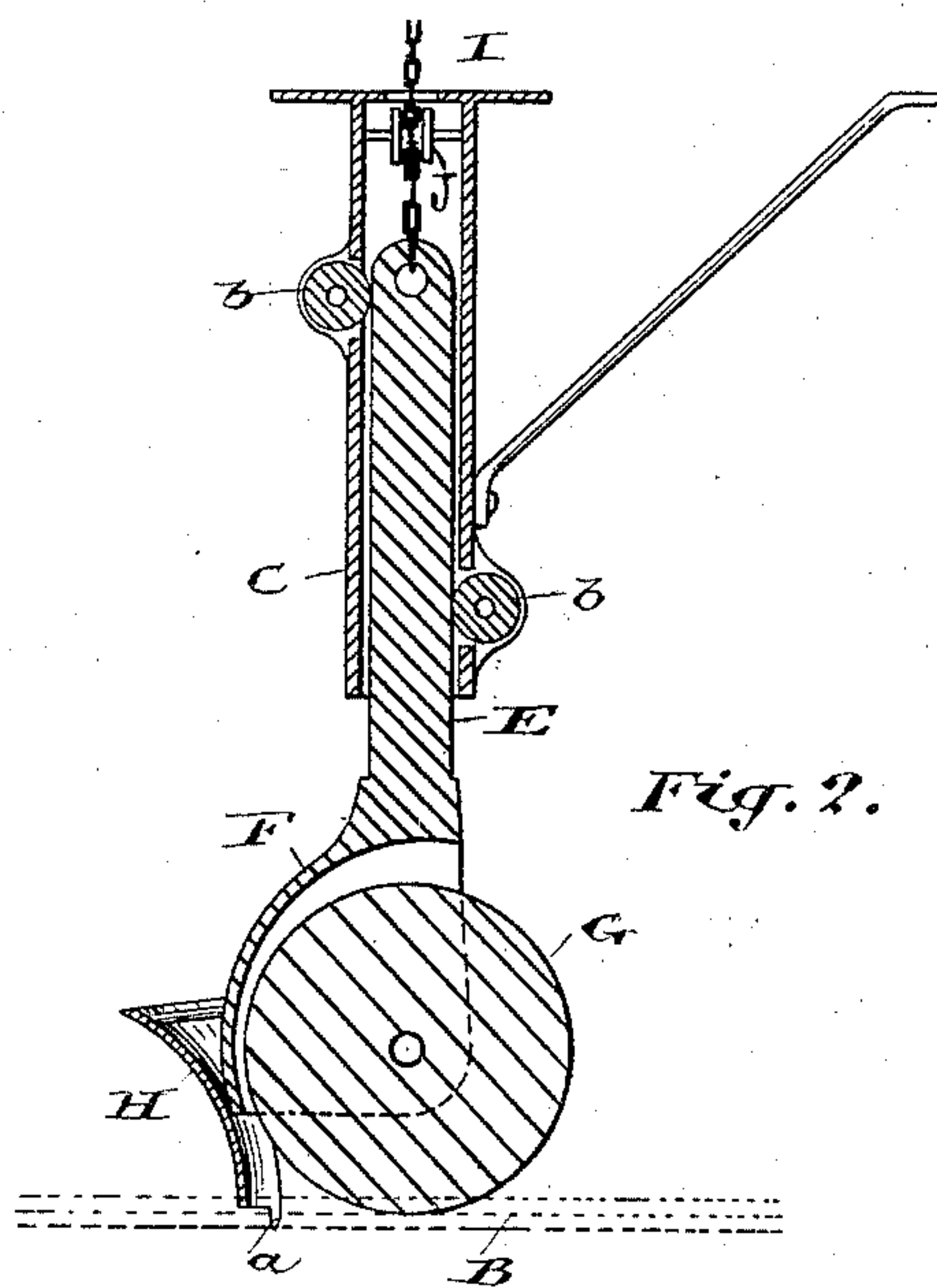


Fig. 2.

Witnesses.

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# UNITED STATES PATENT OFFICE.

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## RAIL-SCRAPER FOR STREET AND OTHER RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 324,731, dated August 18, 1885.

Application filed April 2, 1885. (No model.) Patented in Canada April 16, 1885, No. 21,446.

*To all whom it may concern:*

Be it known that I, WILLIAM HUTCHINSON ROBERTSON, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, gentleman, have invented a certain new and useful Rail-Scraper for Street and other Railways, of which the following is a specification.

The object of the invention is to design an effective rail-scraper which will always keep the same distance from the track, notwithstanding any vertical movement of the body of the car; and it consists, essentially, of a shoe having a plow-shaped nose formed on its toe and a wheel or roller journaled within it, so as to rest upon the rail and support the shoe, which shoe has a shank fitting loosely into a sleeve securely braced to the bottom of the car, substantially as hereinafter more particularly explained.

Figure 1 is a perspective view showing my improved scraper attached in position. Fig. 2 is an enlarged sectional elevation of my improved scraper.

In the drawings, A represents one of the wheels of a street-railway car resting on the rail B. C is a hollow sleeve securely bolted and braced to the bottom timber D of the car. E is a shank fitting into the sleeve C, and having formed on its bottom end a shoe, F, which is shaped, as shown, so as to receive the wheel or roller G, which is journaled in it as indicated.

H is a plow-shaped nose attached to the toe of the shoe F, and shaped substantially as shown, having a lip, *a*, on its inner side, so as to project below the bottom of the rail B, in order to clear a space for the flange of the wheel. It will be noticed that the upper portion of the plow H is curved forwardly, so as to cast any snow or ice which it may have gathered down onto the track in front of it, which will more effectually cause the said snow or ice to be cast on either side of the track instead of passing over the top of the plow H, were it to slant backwardly, in which case the snow or ice gathered by the plow would fall behind the wheel or roller G and interfere with the wheel A.

Small friction-rollers *b* are journaled in the sleeve C, as shown, the one at the bottom of the sleeve being in the rear, while the one at the top is on the front side of the shank, so that any strain on the shank E caused by the

plow performing its work will be met and carried by the rollers *b*; consequently the sleeve C will move freely vertically on the shank to accommodate any vertical movement in the body of the car without in any way altering the position of the scraper proper.

As it is sometimes necessary to raise the scraper clear of the track, I attach to the upper end of the shank E a cord or chain, I, passing it over a sheave pulley, J, journaled on the top of the sleeve. This cord or chain I, I carry to a point where it can be conveniently acted upon by the driver, either connecting it to the brake-handle or providing a special handle for it.

It will of course be understood that the shank E must be so formed that while working freely vertically within the sleeve C it cannot turn round in the said sleeve.

What I claim as my invention is—

1. A rail-scraper composed of a plow-shaped nose, H, attached to the toe of the shoe F, which has journaled within it a wheel or roller, G, in combination with the sleeve C, securely fastened to the bottom of the car, substantially as and for the purpose specified.

2. A rail-scraper composed of a plow-shaped nose, H, having a lip, *a*, and attached to the toe of the shoe F, which has journaled within it a wheel or roller, G, in combination with the sleeve C, securely fastened to the bottom of the car, substantially as and for the purpose specified.

3. The wheel or roller G, arranged to support the shoe F, to which the plow-shaped nose H is attached, a shank, E, extending upwardly from the shoe F and fitting into the hollow sleeve C, in combination with the friction-rollers *b*, arranged substantially as and for the purpose specified.

4. The wheel or roller G, arranged to support the shoe F, to which the plow-shaped nose H is attached, a shank, E, extending upwardly from the shoe F and fitting into the hollow sleeve C, in combination with the friction-rollers *b* and cord or chain I, substantially as and for the purpose specified.

Toronto, March 18, 1885.

W. H. ROBERTSON.

In presence of—

CHAS. C. BALDWIN,

F. BARNARD FETHERSTONHAUGH.