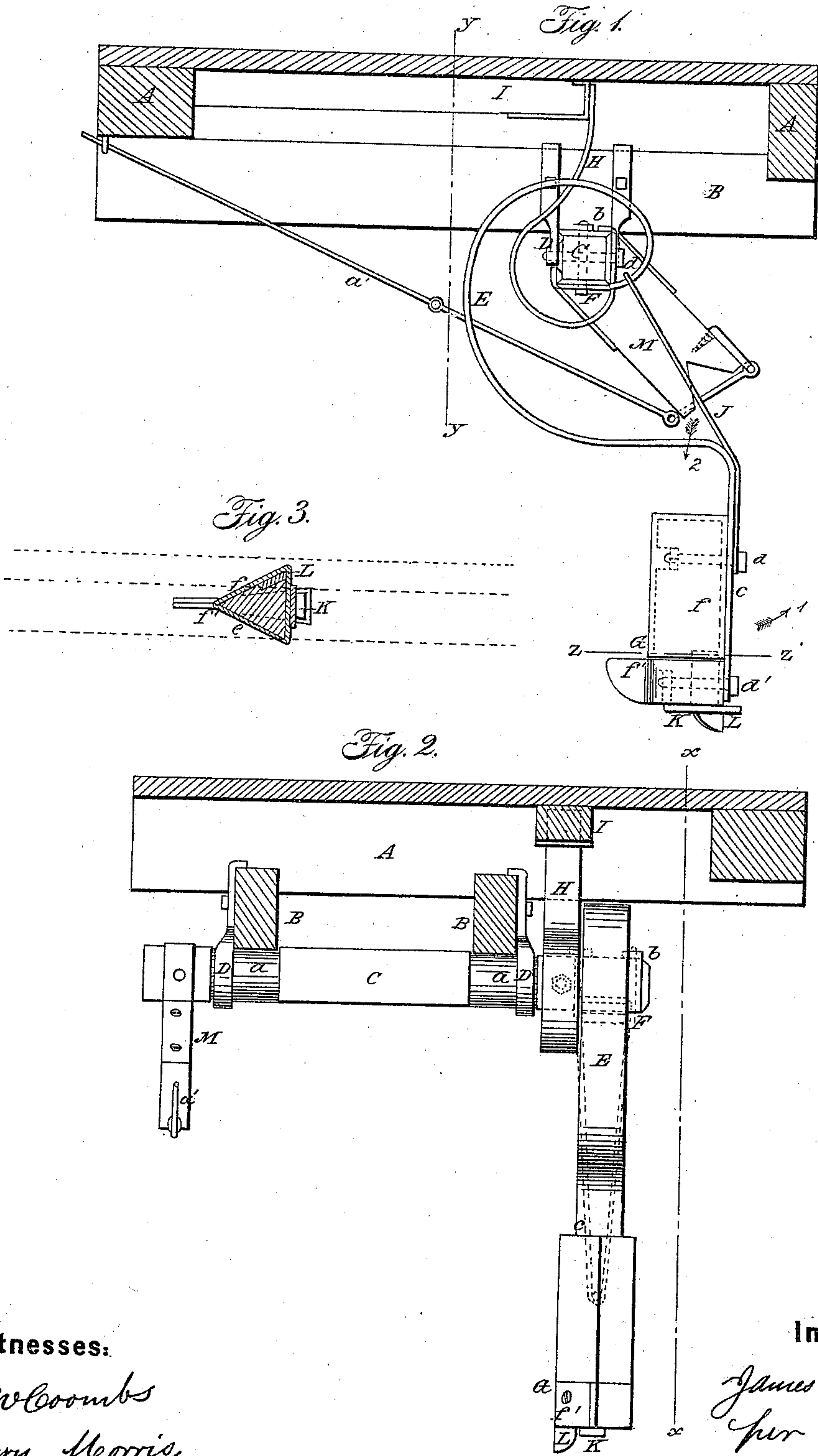


J. SHERIDAN.
Car-Track Clearer.

No. 42,411.

Patented Apr. 19, 1864.



Witnesses:

McCoombs
Henry Morris

Inventor:

James Sheridan,
per Wm. L.
Attorney

UNITED STATES PATENT OFFICE.

JAMES SHERIDAN, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN SNOW-PLOWS.

Specification forming part of Letters Patent No. 42,411, dated April 19, 1864.

To all whom it may concern:

Be it known that I, JAMES SHERIDAN, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and Improved Snow-Plow for City or Street Railroad Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention applied to a car, the bottom portion of the latter being in section, as indicated by the line *x x*, Fig. 2; Fig. 2, a front view of the same, the bottom portion of the car being in section, as indicated by the line *y y*, Fig. 1; Fig. 3, a horizontal section of the same, taken in the line *z z*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in a novel manner of attaching the snow-plow to the car, whereby the former is allowed to yield or give to obstructions which may lie in its path, as well as to the friction produced by the bearing of the plow against the sides of the rails in turning curves, the plow being also allowed to yield or give under a vertical movement of the car, or a variation of the height of the same, caused by the play or elasticity of the car-springs under different loads, the plow, also, by the arrangement or mode of attachment, being capable of being readily raised from the rail at the will of the driver or attendant.

The invention further consists in a novel mode of constructing the plow, whereby the parts of the same which are exposed to wear may, when worn, be readily replaced by new ones, and the plow always kept in proper working order.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A A represent the two side pieces of the bottom frame of a railroad-car; B B, two platform-supporters, and C a shaft, which may be of metal or a suitable hard wood, and of square form transversely, with two cylindrical portions, *a a*, which are embraced by hangers D D, suspended from the platform-supporters B B. This shaft C is at right angles with the car-body, and it is allowed to turn freely in its bearings or hangers D D.

To the shaft C there is attached the upper

end of a spring, E, constructed out of a flat bar of steel or other suitable metal. This spring may be attached to the shaft C by means of a staple F, the shanks of which pass through the shaft and have nuts *b* on their upper ends, the spring E extending up in front of shaft C, over its top, down behind it, and then underneath it, in close contact, where it is secured by the staple F, and then projecting upward and in contact with the front side of the shaft, as shown clearly in Fig. 1. The curve of the spring approximates to the form of the letter C, its lower part, *c*, having a vertical position, but strictly forming no part of the spring. This spring E is the principle one of the invention, and has the snow-plow G attached to it, to the part *c* thereof, and it will yield or give vertically, and also in a backward and upward direction, the latter movement being indicated by the arrows 1, and the former by the arrows 2, in Fig. 1.

To the shaft C there is attached another spring, H, which is curved similarly to E, but extends around the shaft in a reverse direction to the latter, and is secured to the shaft C by a bolt, *d*, which passes through said shaft at right angles to the staple F, which, in connection with the bolt *d*, will, if the shaft C be of wood, prevent the same from being split.

The upper end of the spring H, when the plow is at work, bears against a stop, I, attached to the under side of the platform, or flooring J of the car, as shown clearly in Fig. 1.

The plow or scraper G is constructed of a piece of wood, *e*, of trilateral form in its transverse section, as shown clearly in Fig. 3, and covered with sheet metal, *f*, the lower part, *f'*, of which extends forward of the part *e*, and is curved upward like a sled-runner, as shown clearly in Fig. 1. The scraper is secured to the part *c* of the spring E by two square-headed bolts, *d d'*, the upper one, *d*, holding a link, J, through which the upper part of the spring E passes the link preventing the spring from stretching downward.

To the bottom of the plow or scraper G there is attached a metal plate, K, the front part of which extends upward in the part *e* of the plow or scraper, and serves as a nut for the lower bolt, *d'*, the other part of K bearing against the bottom of *e* and running upon the top of the rail.

L is a spur or guard, which is formed of a

metal plate inserted vertically into the lower part of *e* at its inner side, so as bear against the inner sides of the rails. This spur or guard may be secured in proper position by screws or bolts.

As the car is drawn along, the plow or scraper *G* runs upon the rail directly in front of the wheel, there being a plow or scraper directly in front of each forward wheel. The spring *E* admits of the plow or scraper yielding or giving backward to any obstruction which may lie in its path, the spring *H* also yielding or giving to a certain extent, and serving as an auxiliary to spring *E*. The plow or scraper is thereby allowed to pass over obstructions which may be on the rail, and also to yield or give when the spur or guard *L* presses heavily against the inner side of the rail, as in passing over curves. The plow or scraper may be raised up free from the rail at any time by having a crank, *M*, attached to the inner end of the shaft *C*, and a chain or rod, *a'*, connected to said crank, which passes up to the end of the platform, so as to be within reach of the driver or attendant. The spring *E*, in consequence of being curved, as shown, admits of the car falling or rising under the weight of its load without at all affecting the operation of the plow or scraper.

The plate *K* runs upon the upper surface of the rail, and when worn by use may be readily

replaced by a new one, and the front projecting curve part, *f'*, of the plow or scraper admits of the latter passing over inequalities in the rails or over projecting ends of the same.

Although only one plow or scraper has been described, there are four applied to each car—one at the outer side of each wheel; but as they are all constructed in precisely the same way a description of one of them will answer for all.

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

1. The spring *E*, attached to the shaft *C*, in connection with the spring *H*, or an equivalent projection, also, attached to shaft *C*, and stop *I*, attached to the under side of the platform or bottom of the car, and the plow or scraper *G*, attached to the spring *E*, all arranged either with or without the link *J*, substantially as and for the purpose herein set forth.

2. Constructing the plow or scraper *G* of a triangular portion, *e*, of wood covered with sheet metal, *f*, and provided at its lower end with a curved projecting front piece, *f'*, an adjustable plate, *K*, and spur or guard *L*, substantially as herein set forth.

JAMES SHERIDAN.

Witnesses:

THOMAS P. BEATY,
BERNARD BEATY.