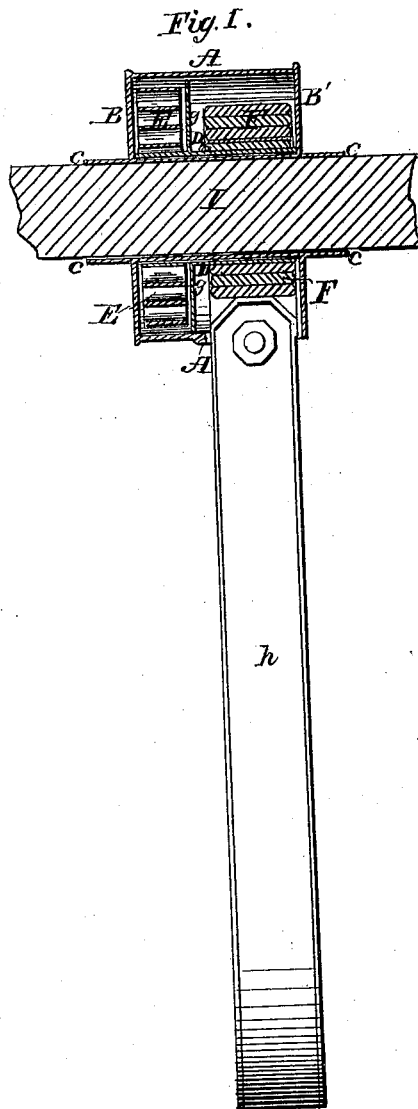


T. COGSWELL,

Car Strap.

Patented Mar. 13, 1866.

No. 53,116.



Witnesses:

Thos. M. Clark
Robt. Murray

Inventor:

Thomas Cogswell

UNITED STATES PATENT OFFICE.

THOMAS COGSWELL, OF BOSTON, MASSACHUSETTS.

IMPROVED EXTENSION HOLDING-STRAP FOR STREET-RAILWAY CARS.

Specification forming part of Letters Patent No. 53,116, dated March 13, 1866.

To all whom it may concern:

Be it known that I, THOMAS COGSWELL, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Extension Holding-Strap; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical section. Fig. 2 is a transparent end elevation.

Like letters indicate like parts in both figures.

It is well known that passengers in street-cars are frequently obliged to stand during some portion of their ride, and to enable them to do this with ease, bars with sliding straps upon or attached to them are provided along the roof of the car. These straps are of an invariable length—so long as to inconvenience tall persons, and so short as to be useless or straining for short persons.

It is my object to provide a strap which shall at once be long enough for the short, and short enough not to inconvenience the tall; and while I can see that its principal employment will be for street rail cars, yet it will not be otherwise useless, as in cars on ordinary railroads, or in omnibuses, or for the tabs by which footmen hold at the rear of carriages, or for many other purposes when a holding-strap is required; and I therefore declare my invention to be an extension holding-strap automatically coiled or retracted when not in use, and capable of being drawn out to considerable length, when required.

To enable others skilled in the art to make and use my said invention, I will now proceed to describe the construction and operation thereof.

A is a cylinder, closed by two disks, B B', and perforated by an axial cylinder, C, the whole forming a dirt-proof case. Around the axial cylinder C is a cylindrical sleeve, D, carrying its separating disk *g*, parallel to the closing-disks B B'. A spiral-spring, E, is fastened by its interior end to the sleeve D and by its outer end to the cylinder A, itself being coiled about the sleeve. A strap, F, bearing on its

end a loop, *h*, is also coiled about the sleeve D, and its inner end is securely fastened to said sleeve. This strap passes through a slot in cylinder A, which may or may not have friction-rollers at its edges. This contrivance rides on the bar I, to which it may be screwed, or it may be steadied on said bar by a feather in the interior of axial cylinder C, running in a groove in bar I; but these adjuncts I do not consider either necessary or useful, the reaction of the spring against the strap and the pressure of the side of the slot in cylinder A against the strap giving sufficient steadiness.

It is obvious that the axial cylinder C may be dispensed with, and the sleeve D allowed to rotate upon bar I; but I prefer the construction described.

Various other springs might be constructed to replace the spiral, such as the helix or its modifications, the elastic force of rubber, a coiled cord connected with a straight spring, &c.; but I prefer this as the simplest and least liable to disorder. As it is obvious, also, that the cylinder A is mainly useful to protect from dust, it may be replaced by bars or bolts parallel to the axis and connecting-disks B B', leaving the spring and strap exposed.

On pulling at loop *h* strap F may be drawn out to its full or any less extent, spring E resisting and supporting the same, and on releasing the hand the strap flies back out of the way.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with bar I, or its equivalent, an extension holding-strap, substantially as and for the purpose described.

2. In the construction of such a strap, the use of the spiral spring E, or its equivalent, in combination with the spirally-coiled strap F, both being coiled upon a sleeve, D, or its equivalent, and acting in opposition to each other, the whole being combined with and riding on bar I, either loosely slipping or securely fastened, substantially as described.

THOMAS COGSWELL.

Witnesses:

THOS. WM. PARKE,
ROBERT MURRAY.