

JOSEPH ELLISDON.
Improvement in Canopies.

No. 119,698.

Patented Oct. 10, 1871.

Fig. 1.

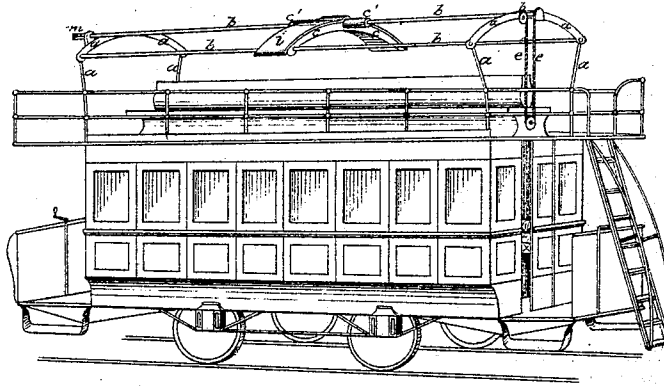


Fig. 2.

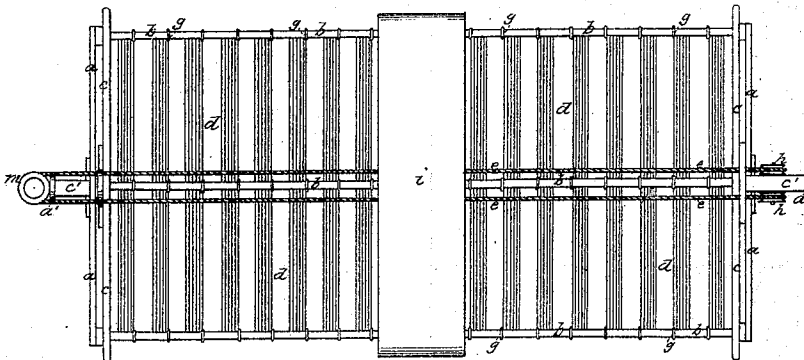


Fig. 3.

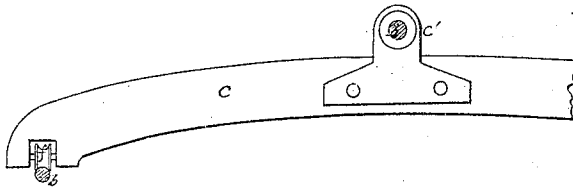
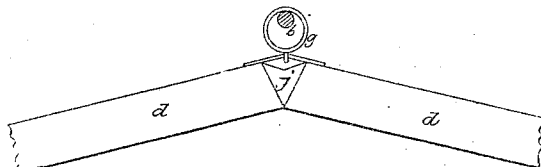


Fig. 4.



Witnesses:

James Johnson
John Ling

Inventor:

Joseph Elliston.

UNITED STATES PATENT OFFICE.

JOSEPH ELLISDON, OF LIVERPOOL, ENGLAND.

IMPROVEMENT IN CANOPIES.

Specification forming part of Letters Patent No. 119,698, dated October 10, 1871.

To all whom it may concern:

Be it known that I, JOSEPH ELLISDON, of Liverpool, in the county of Lancaster, in that part of Her Britannic Majesty's dominions called England, have invented certain Improvements in Canopies, of which the following is a specification:

The said invention relates to canopies—called expanding and contracting canopies—suitable for use on or over omnibuses and other vehicles, navigable vessels, garden seats, and other structures and places which it may be desired to protect from the direct rays of the sun or from rain, and has for its object to provide such appliances so constructed, arranged, and adapted for operation that the protector-sheet or canopy proper can, first, be easily and quickly expanded into a protecting position; second, can be easily contracted into a small protection or housing; third, may be so constructed as to drop to each side and thus serve effectively in protecting from both sun and rain; and fourth, shall be durable and ornamental.

The accompanying drawing contains views of a canopy constructed in accordance with my invention applied to a tramway car. This modification has the protector-sheet sloping slightly downward at both sides, is arranged to move from the ends to the center, and is adapted to afford protection from both sun and rain.

Others will be enabled, from the following description, to apply the arrangement of parts shown or modifications thereof to other structures or places.

Figure 1 is a perspective view of the said canopy applied to a tramway car, the said canopy being contracted or housed and out of use. Fig. 2 is a plan view of the said canopy expanded into position for use. Fig. 3 is an end elevation of part of one of the transverse rigid runners; Fig. 4, a transverse section, showing the inserted gores, to allow both sides of the protector-sheet to be inclined.

Like letters denote the same parts in all these views.

a are fixed standards or supporters extending up from the vehicle and supporting the longitudinal carriers *b*. Three of these horizontal ways or carriers *b* are here shown; any larger number may be used, or two only may answer should it not be desired to make the protector-sheet in-

cline at both sides. *c* are movable transverse rigid runners, to which the ends of the protector-sheet or canopy proper *d* and the operating cords, bands, or chains *e* are attached. When the protector-sheet *d* is large and the movable pieces *c* are heavy, carrying-rollers, marked *f*, (see Fig. 3,) are employed. *g* are rings, runners, or bridles attached to the protector-sheet *d* and traversing on the bars *b*. These serve to carry the sheet *d*, and also to give the grooved or rigid surface seen in Fig. 2, which is valuable in determining the position of the several parts of the sheet *d* when folded, and also in respect of its power of carrying off rain. If desired, the protector-sheet might be caused to project laterally considerably beyond the vertical exterior side of the car. The cords, bands, or chains *e* are led around a pulley, *m*, on the bracket *a'*, which extends outward, as shown, and downward over pulleys *h*.

Modifications may be made in the forms of the several parts without departing from the principles of novelty in the invention. Thus the long sockets or tubes *c'* *c'*, fixed on the movable parts *c* at their centers, and adapted to traverse on the central longitudinal bar or carrier *b*, may, if preferred, be used at the sides to run on the side carriers; or they may be considerably shortened, or, in some cases, dispensed with altogether where the size of the parts is such that the pieces *c* will traverse in the proper parallel positions; or the cords *e* may be duplicated and mounted one at each side, and thus, by proper care, be made the means of operating the canopy correctly without a possibility of twisting or jamming. In regard to the cords *e* it will be evident that, instead of *e* being an endless piece, it may be made in two pieces, both ends being brought to the front or back of the car, or one to the front and the other to the back.

It will further be evident that the protector-sheet *d* may be arranged to expand from one end or other part of the carriers *b* instead of from the middle, and that in that case the housing *i* will be placed at the end or other selected position. *j* indicates the gores let into the protector-sheet *d*. When it is not desired to cause the two sides to assume a sloping downward and outward direction these gores would not be required, and in those cases, if the protector-sheet *d* were not of great width, the center carrier *b* and the center line of ring-runners *g* might be dispensed with.

A convenient modification of the carriers *b* and runners *g* and part of rigid runners *c* can be made by forming the longitudinal bars or supports *b* of tubes and adapting the runners to move in the said tubes through grooves therein.

In applying my invention as an awning on board ships I propose to sometimes make the carriers *b* with joints or hinges, to allow the protector-sheet to be carried beyond the line of the taffrail, the said joints or hinges to be drawn inward when entering or leaving port. When it is desired to expand the canopy it is only necessary to cause the cords *e* to move in the direction of the arrow, whereupon the several parts will move from the position shown in Fig. 1 to that delineated by Fig. 2. When it is desired to contract the canopy the cord *e* is moved in the contrary direction.

In practice I prefer to make the protector-sheet of water-proofed canvas; but it may be made of other materials, if desired, partly elastic and partly rigid. The carriers *b* are shown made of metal, so also are the runners or rings *g*; but they may be made of wood or other material. The transverse rigid runners I prefer to make partly of timber and partly of metal, as shown.

By preference I make the cord *e* of cotton or hemp, but a chain or band of other materials may be employed.

Having now described the nature of my said invention and particularized the same, I would have it understood that I do not claim to have invented any improvement in the tramway car delineated on the drawing, except so far as relates to the canopy and its connections there shown; and that I do not claim to have invented any improvement in the supporting-standards.

What I do claim is—

1. The carriers *b*, runners *c* and *g*, and protector-sheet *d*, in combination with the operating cord *e* or its equivalent, for the purpose set forth.

2. The housing *i*, in combination with the parts *b*, *c*, *g*, *d*, and *e*, for the purpose set forth.

3. In combination with the above, the gores *j* in the protector-sheet *d*, arranged to serve therein in contracting and expanding in a drooping position, as and for the purpose set forth.

JOSEPH ELLISDON.

Witnesses:

JAMES JOHNSON,
JAMES GLENNY.