W. B. DOOLITTLE.

Awnings.

No. 205,064. Patented June 18, 1878.

Fig. 1.

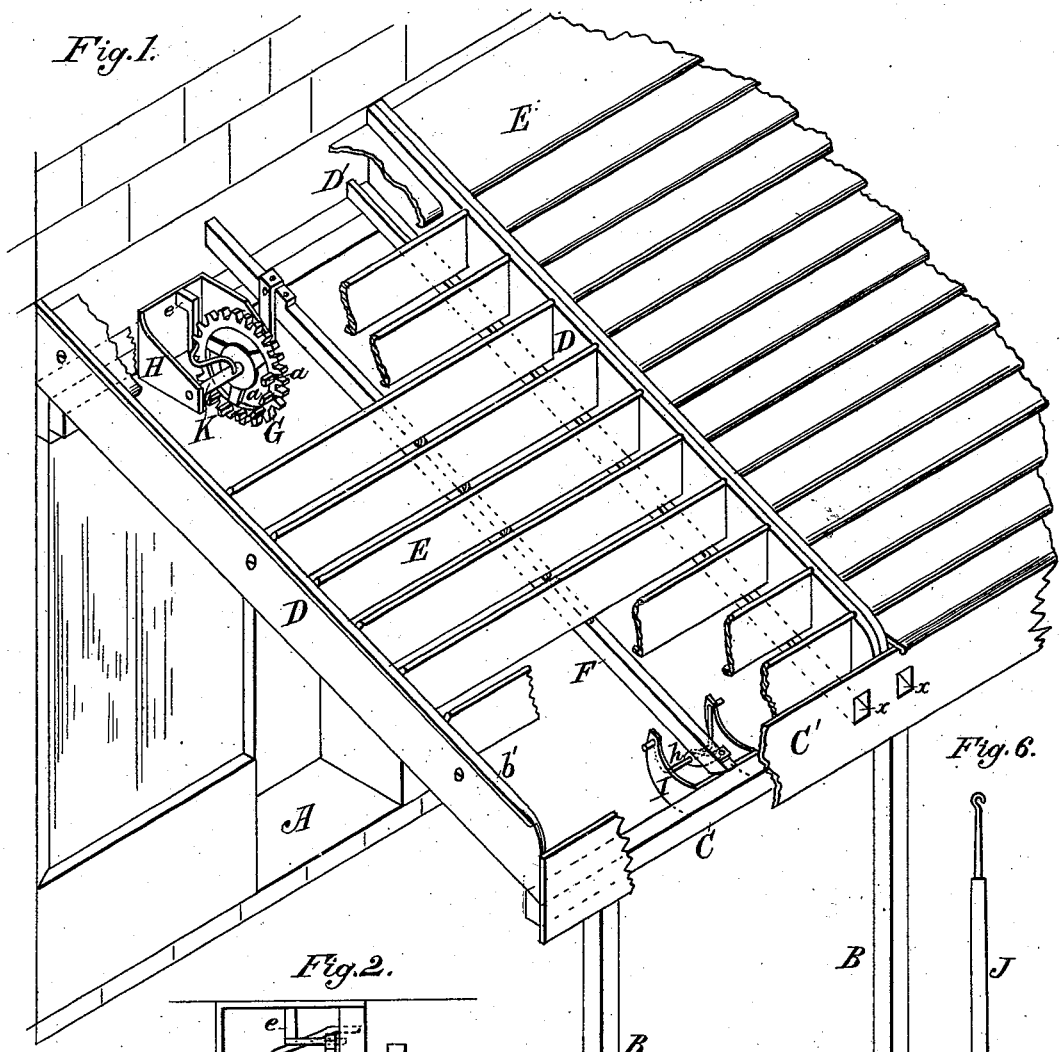


Fig. 6.

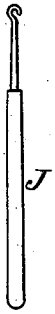


Fig. 2.

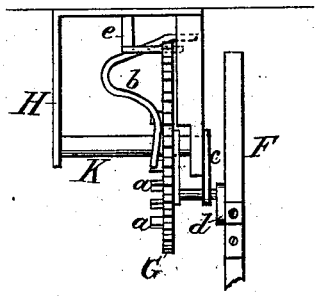


Fig. 5.

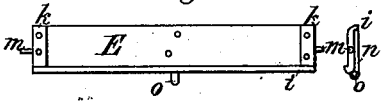


Fig. 3.

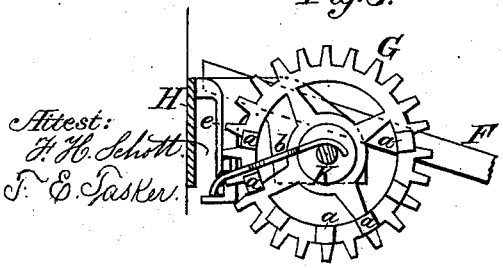
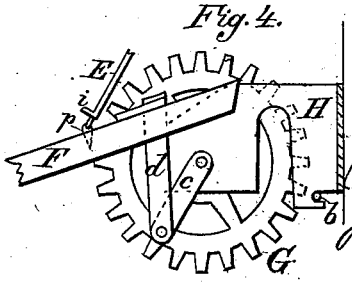


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM B. DOOLITTLE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN AWNINGS.

Specification forming part of Letters Patent No. **205,064**, dated June 18, 1878; application filed May 3, 1878.

To all whom it may concern:

Be it known that I, WILLIAM B. DOOLITTLE, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Awnings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to improve that class of awnings which are used as a substitute for the ordinary awnings of canvas placed over the sidewalk in front of stores and other buildings; and consists of a substantial structure of wood or metal, that shall not only perform the function of the ordinary awning by keeping off the sun and rain, but from its peculiar construction shall act as a ventilator, allowing currents of air to pass upward through it, and at the same time add to the amount of light admitted to the store-front, which is of great moment in many cases, as it frequently happens that a store is only lighted from the front, when, if the admission of light is partially prevented by an awning, the rear of the store will be so dark as frequently to call for the lighting of gas or rolling up of the awning in the day-time, when a protection from the sun is most needed.

With my improved awning the store-front and sidewalk are shaded, while the admission of light is but slightly interrupted; and the invention consists in the peculiar construction and adaptation of a system of rolling slats and their operating mechanism, as will be hereinafter fully described, and the novelty specifically pointed out in the claims.

Figure 1 of the drawings represents a perspective view, partly in section, of a store-front provided with my improved awnings. Fig. 2 presents a front view of the apparatus used in moving the slats of the awning. Figs. 3 and 4 show opposite sides of the operating-wheel and its attachments. Fig. 5 represents one of the slats detached, and Fig. 6 the bar or lever by means of which the operating-wheel is moved.

A represents the front of a store, and B a series of awning-posts, placed near the curb-stone at the outside of the sidewalk. These posts may be constructed of wood or iron, substantially in the same manner as those in common use. They support a plate, C, which carries the outer ends of the wood or iron rafters D, the inner ends of which rest against the side of the building, and are secured thereto in any suitable manner. These rafters are provided with a removable cap, b', which may be taken off for the purpose of removing or inserting the rolling slats E, when desired.

A covering-board, C′, is placed upon the outside of the plate C, and is provided with openings x, for the exit of any water which may gather and run down the gutters D′, which are placed beneath the rafters to catch the drip from the joint between them and the ends of the rolling slats E, which take the place of the canvas used in an ordinary awning. These slats are formed with oppositely-projecting ledges i at their edges, as shown in Fig. 5 of the drawing, so that when closed the ledge upon the under side of one shall project over and cover that upon the upper side of the adjacent slat, thus causing them, when closed, to form a perfect water-shed, except at their ends, where they are pivoted in the rafters D, any water passing through this joint being, as before stated, caught by the gutter D′.

The ends of the slats E are provided with metal straps k, riveted or otherwise secured thereto, and carrying the pivots m, upon which the slats rotate in suitable bearings formed for their reception in the rafters. Across the center of each slat is also secured a strap, n, having an eye, o, which projects to receive a staple, p, by which the slat is connected to the bar F. These straps k and n also serve to prevent the splitting or checking of the slats when they are of wood, which is the material I prefer to use in their construction, on account of its cheapness in comparison with metal, although the latter may be employed, if desired.

A broad board or covering-piece, E′, having a projecting ledge on its under side and lower edge, is placed next the building, and covers the mechanism by which the slats are operated, consisting of the toothed wheel G, mounted upon the shaft K, which revolves in bearings in the supporting-frame H, secured to the wall

of the building, or in any other suitable place or manner that will admit of its proper connection with the bar F.

The wheel G is provided with projecting stops *a* at suitable points on one side, which may come in contact with the spring-lever *b*, the stops being so placed that each one will hold the slats in a certain predetermined position, as closed, half or fully open. This spring-lever performs a further function in pressing back the spring-catch *e*, which is employed to enter between the teeth surrounding the periphery of the wheel, and locking it in the desired position after it has been properly placed.

A crank, *c*, is attached to the shaft K, and, through the agency of the connection *b*, which is attached to the bar F, moves the latter, together with the slats E, whenever the wheel G is turned in either direction. Turning the wheel in one direction opens the slats, while a turn in the opposite direction closes them.

The lower end of the bar F is carried upon a crank, *h*, journaled in the brackets I, which are secured to the plate C. The radii of the circle described by the cranks *c* and *h* being equal to each other, and the same as the distance from the axial line of the pivots *m* to the point of junction between the slats E and bars F, it is evident the movement of the latter will be accommodated both vertically and horizontally to that of the slats.

In operating this apparatus, a bar or lever, J, provided with a hook at one end is used as follows: The hook end of the bar, is placed over the shaft K, between the spring-lever *b* and the wheel, the end coming between two of the projections on its side; then push gently against the wheel, and the hook end of the bar will bear against the spring-lever *b*, and that will push back the spring-catch *e*, thus unlocking the wheel, which may then be moved by means of the bar to open or close the slats. Upon withdrawing the bar the spring-catch *e* instantly locks the wheel, holding the slats firmly in the position in which they may have been placed.

It will be apparent that by extending the shaft *k* several sections of slats may be be operated at once by the same operating-wheel, and that where the awning extends around a corner another shaft at right angles to the first may be connected with it by means of bevel-gearing, or one of the many forms of universal joints in use, enabling the operator to open or close the awning on both sides of the building at the same time.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent, the following:

1. In an awning, the rafter D, made of two parts, one of said parts formed with a bead and rabbet to hold the rolling slats in place, so that by removing the beader-stop any one or more of the rolling shades may be removed and replaced by another, substantially as set forth.

2. In an awning, the slats E, provided with ledges *i*, metal stops K, and pivots *m*, in combination with the operating-bar F and cranks *c* and *h*, as and for the purpose set forth.

3. In an awning, the toothed wheel G, provided with stops *a*, in combination with the spring-catch *a'* and spring-lever *b*, substantially as and for the purpose set forth.

4. The brackets I and crank *h* at the front of an awning, in combination with the operating-bar and a series of pivoted slats, E, and suitable operating mechanism, as and for the purpose specified.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

WILLIAM B. DOOLITTLE.

Witnesses:
W. D. LONE,
HENRY BUCHANAN.