(No Model.)

H. F. DOUGLASS & A. G. STOUDER.

CARRIAGE SUNSHADE.

No. 494,369. Patented Mar. 28, 1893.

Fig. 1

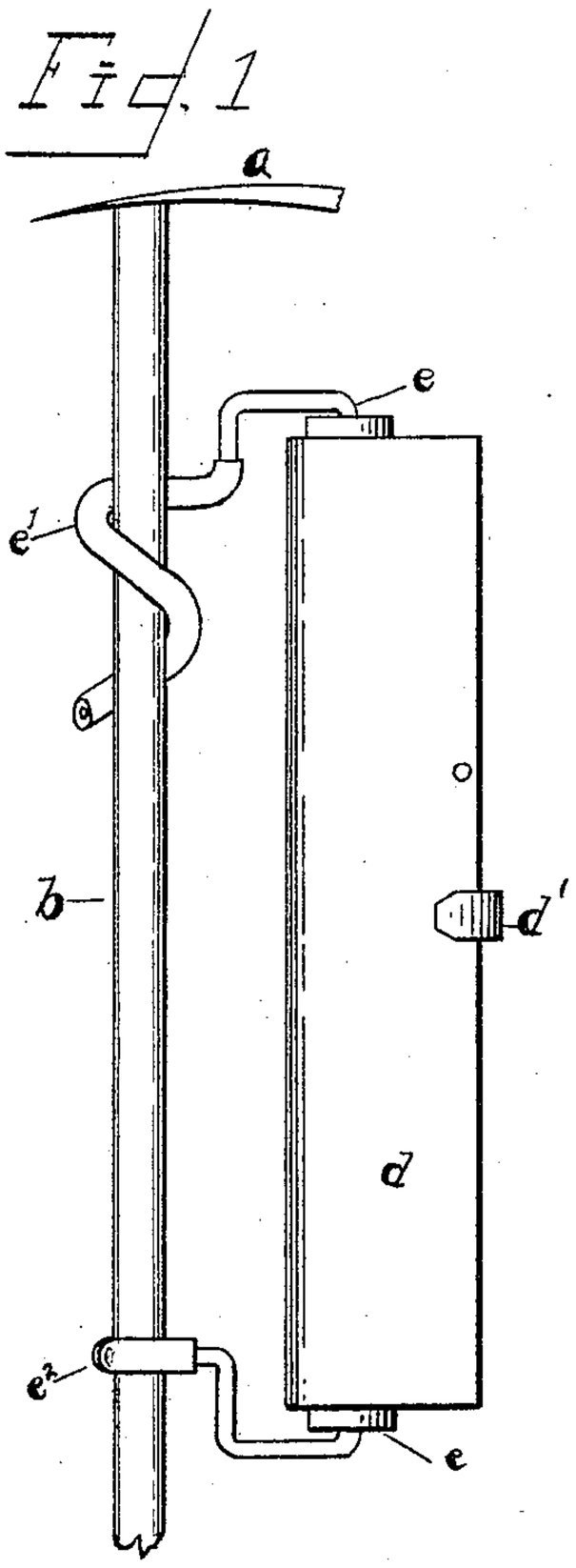


Fig. 3

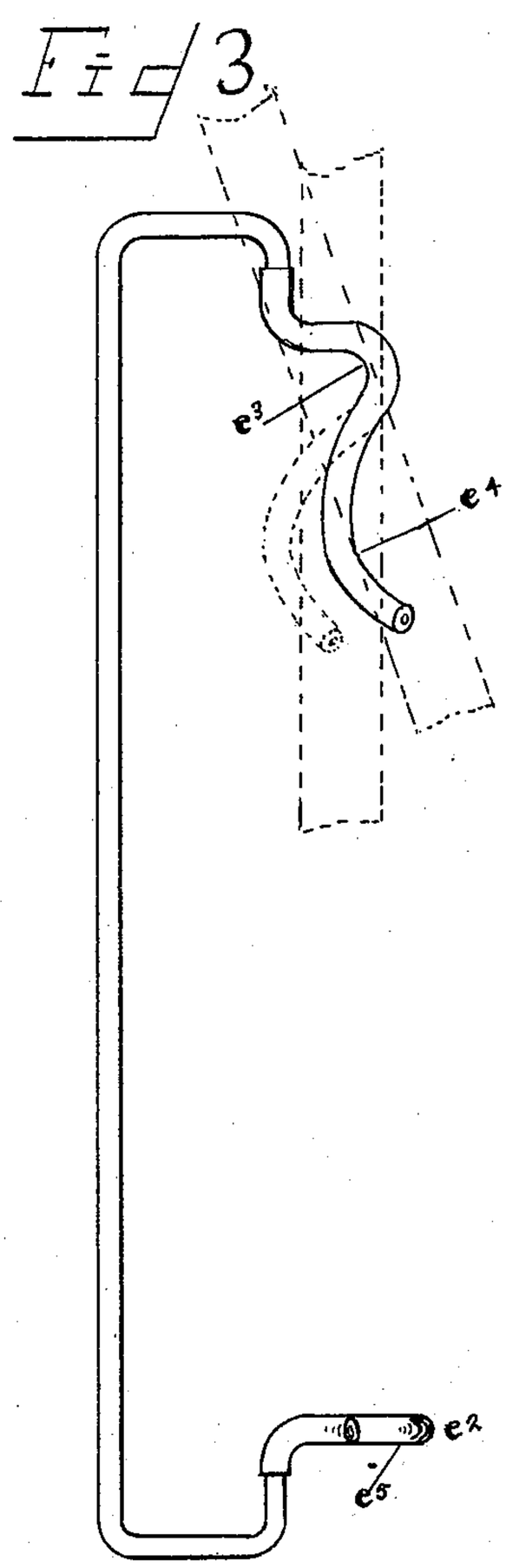
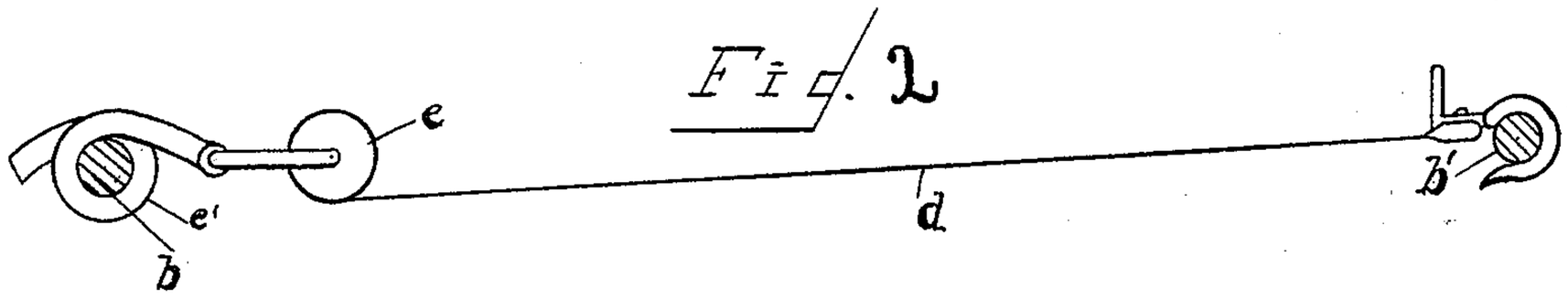


Fig. 2



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UNITED STATES PATENT OFFICE.

HEMAN F. DOUGLASS AND AUGUSTUS G. STOUDER, OF TROY, OHIO.

CARRIAGE-SUNSHADE.

SPECIFICATION forming part of Letters Patent No. 494,369, dated March 28, 1893.

Application filed February 29, 1892. Serial No. 423,324. (No model.)

To all whom it may concern:

Be it known that we, HEMAN F. DOUGLASS and AUGUSTUS G. STOUDER, citizens of the United States, residing at Troy, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Carriage-Sunshades, of which the following is a specification.

Our invention relates to improvements in carriage sun-shades and it especially relates to that class of sun-shades which embodies a spring roller adapted to operate upon a shade or curtain so as to supply a tension to said curtain when unrolled and secured at the free end and to wind the same about the roller when the free end is released.

Our invention is especially directed to improvements in the devices for attaching and holding sun-shades of this character to the canopy top of a vehicle to which they are adapted to be applied, the constructions being such that the curtain may be readily attached or detached and will be held firmly in any desired position of adjustment, when in place.

Our invention consists in the various constructions and combinations of parts hereinafter described and set forth in the claims.

In the accompanying drawings Figure 1 is an elevation of a portion of a vehicle top and its supporting standard to which our invention is shown applied. Fig. 2 is a diagrammatic view showing the shade in position and unrolled for use, with the respective ends attached to the supporting standards of the vehicle. Fig. 3 is a detail view of the spring roller holding device, some of the parts being illustrated in different positions in dotted lines.

Like parts are represented by similar letters of reference in the several views.

In the said drawings *a*, represents the top of any ordinary vehicle, *b*, is the supporting standard therefor.

c, is an ordinary spring roller, such as is used for curtains and sun-shades, and *d*, is the curtain or shade thereon. The curtain *d*, is secured to the roller at one end in a well known manner and is provided at the opposite end with a hook *d'*, adapted to engage with a supporting standard *b'*, of the canopy top, when the curtain is unrolled, as illustrated in Fig. 2.

In devices of this character it is desirable that the means for attaching the sun-shade to the carriage top or its supports are such that it may be readily attached or detached. It is also desirable that means be furnished for holding the shade in any desired position of vertical adjustment along the standard. To provide for this we construct a spring frame *e*, for the spring roller preferably formed of resilient wire or other suitable materal. This spring frame is provided with oppositely arranged bearing points adapted to engage on opposite sides of the supporting standard with the parts sprung to an unusual position, so that the resiliency of the frame tends to clamp the supporting standard when the curtain is in its normal position.

In the constructions which we preferably use the frame *e*, is constructed of a single piece of wire which passes entirely through the roller to form the axis therefor, and the projecting ends thereof bent outwardly, thence downwardly and formed into hook-shaped projections e' e^2. One of the hook-shaped projections is preferably formed by giving to the free end of the wire a helical or screw shape, as shown at e', the helix being of such size that the inner diameter is less than the outer diameter of the supporting post or standard. The helix is made of such length as to furnish at least two bearing points e^3 e^4, on opposite sides of the standard *b*, while the hook-shaped projection e^2, furnishes a third bearing point e^5, the said bearing points being alternated on opposite sides of the supporting standard. The hook-shaped ends and the bearing points thus formed are covered with soft rubber or other suitable elastic material which serves the double purpose of securing a more rigid connection between the parts and prevents marring or rubbing of the same. In placing the frame thus formed in position, the helical hook-shaped projection is passed around the supporting post *b*, by turning the frame to an angular position with reference thereto. By pressing inwardly on the frame, the bearing points of said helical connection

cause the said connection to yield to the position shown in dotted lines in Fig. 3, when the hook-shaped projection at the opposite end engages with the opposite side of the standard *b*, thus bringing the axis of the roller substantially parallel to the supporting standard.

By the constructions thus described an effective fastening device is secured by which the sun-shade may be readily attached in any position of vertical adjustment to the supporting standard of a canopy top vehicle. When so placed the shade may be drawn, as desired, across the vehicle, so that the hook *d'*, will engage the opposite standard *b'* in a well known manner. By the use of the rubber covered resilient hook-shaped projections with bearing points, adapted to be arranged on opposite sides of the standard *b*, when pressed to an unusual position, a holding device is provided which clamps the sun-shade firmly in position and holds the same securely against either lateral or longitudinal movement. The spring to operate the roller will be applied in the usual well known manner by attaching one end of the spring to the said roller and the other to the trunnions on which the roller revolves. Any of the well known constructions now in use may be used for this purpose, as this forms no part of the present invention.

Having thus described our invention, what we claim is—

1. In a carriage sun shade, the combination with a frame consisting of a piece of resilient material each end of which is bent at an angle to the main portion and one of which ends is formed into a hook and the other end is formed into a helix, a roller on the frame and a curtain on the roller, substantially as set forth.

2. In a carriage sun shade, the combination with a frame consisting of a piece of resilient material each end of which is bent at an angle to the main portion and covered with yielding material, and one of which ends is formed into a hook and the other end is formed into a helix, a roller on the frame and a curtain on the roller, substantially as set forth.

In testimony whereof we have hereunto set our hands this 24th day of February, A. D. 1892.

HEMAN F. DOUGLASS.
AUGUSTUS G. STOUDER.

Witnesses:
WM. I. SLYDER,
E. C. BROWN.