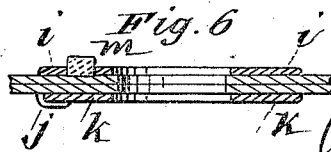
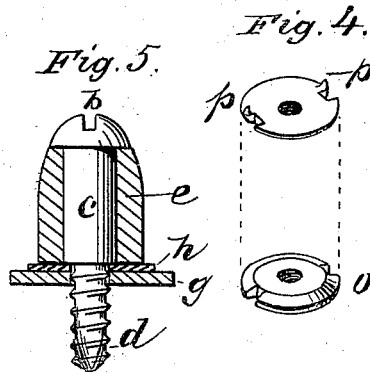
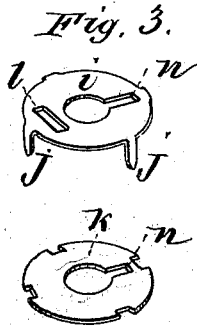
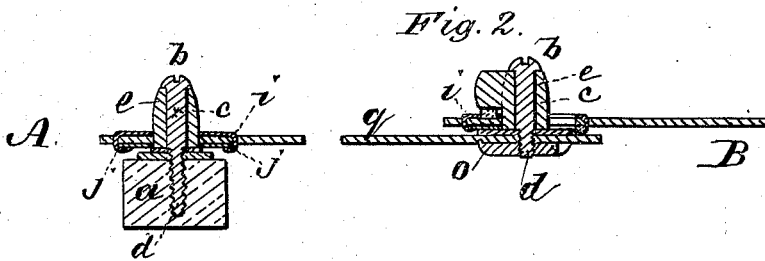
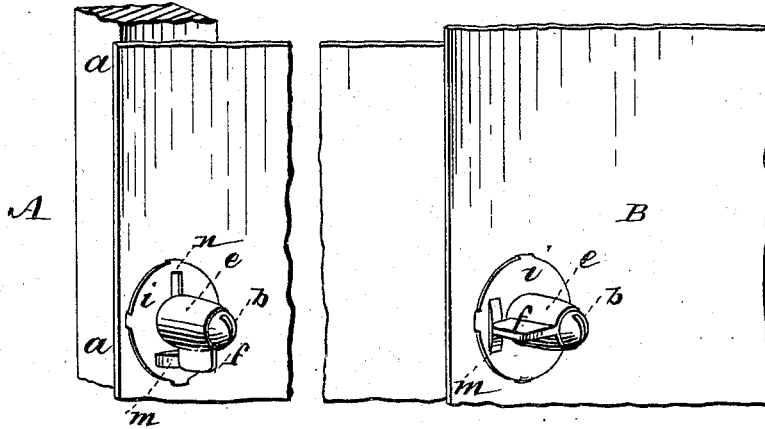


G. F. WILSON.
Carriage-Curtain Fastener.

No. 211,287.

Patented Jan. 7, 1879.

Fig. 1.



Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

GEORGE F. WILSON, OF EAST PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN CARRIAGE-CURTAIN FASTENERS.

Specification forming part of Letters Patent No. **211,287**, dated January 7, 1879; application filed October 14, 1878.

To all whom it may concern:

Be it known that I, GEORGE F. WILSON, of the town of East Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in the Method of Fastening Carriage-Curtains to the frame-work, or to the coverings of the frame-work, of carriages, of which improvements the following is a full, clear, and exact description.

The object of my invention is to firmly secure the curtains to the frame-work, or to the covering of the frame-work, of a carriage, in such a manner that they cannot be unfastened by wind or currents of air, to prevent, by suitable grommets, that portion of the curtain clasped by the button from being torn, and at the same time prevent a disagreeable rattling noise caused by the movement of the carriage.

Contrivances heretofore devised to attain the object of my invention are both too costly and attended with many practical disadvantages. They are either composed of a great number of pieces, which are liable to get out of adjustment and fail of the requisite strength, and are difficult, if not impossible, to be manufactured or blackened or enameled without destruction of certain parts; or, when a stationary screw is used in connection with a revolving barrel and flange, I have found that the screw is either too tight on the barrel, which renders the latter difficult to revolve, or too loose, and thus causes unpleasant rattle. In either case the screw is liable to work loose.

Figure 1 represents a perspective view of a carriage-curtain fastener made in accordance with my said invention, A in said figure showing the same applied to the wooden frame of a carriage, and B to a covering of the frame or other thin and flexible part of the carriage. Fig. 2 are sections through the axes of said fasteners. Figs. 3 and 4 are detail views, in perspective, of certain parts; and Figs. 5 and 6, detail views, partly in section, on an enlarged scale, of other parts, as I shall hereinafter more fully explain.

In these figures the same letters are used to indicate the same parts.

In said figures, *a* represents part of the

frame of a carriage. The fastener, which is used as an attachment thereto, is composed of the following parts, viz: A wood-screw, composed of a spherical nicked head, *b*, a cylindrical shank, *c*, of a given length, and a threaded extremity, *d*, constitutes the axis or spindle upon which the barrel *e* revolves. This barrel is exactly of the length of the shank *c* of the screw before referred to, and of cylindrical form, the one end being preferably tapered or beveled to form continuity of surface with the spherical head of the screw. This barrel is provided with a ward or spur, *f*, which is a blade projecting on the side of the barrel in the plane of its axis.

The peculiar shape of the barrel indicated in the drawings is preferred, for the more ready and convenient passage on or off the barrel of the grommeted curtain.

Between the wooden frame and the barrel *e* of the fastener, I introduce, and so as to butt against the shoulder of the shank of the screw, two washers—the one, *g*, being of leather and placed against the wooden frame, and the other, *h*, of metal and intermediate between the barrel and the leather washer *g*. By this arrangement it will be understood that the barrel will revolve upon a smooth metallic pivot between two smooth metallic plane surfaces, all of which admits of the nicest adjustment without any expense, and the screw carrying the fastener can be driven home without danger of binding the fastener, or of becoming loose, or of causing rattle.

What I have now described is the stationary part of the fastener. The movable portion, or the part attached to the curtain, is composed of a round disk, *i*, cut out of pliable metal, with a number of radial prongs, *j*, which are designed to be bent at right angles to the face of the disk, as shown in Fig. 3, and passed through corresponding openings cut for their reception in the curtain. These prongs are then clinched or bent over against another disk, *k*, of similar diameter, but notched at its circumference for the lodgment of the prongs. This disk is placed on the opposite side of the curtain, so that the curtain shall be firmly clasped between the two disks, as shown in Fig. 2. Both disks have corre-

sponding central apertures of even diameter, which is slightly greater than that of the barrel *e*. On the one side the central apertures are extended into corresponding oblong evenly-shaped slots *n*, to allow of the passage of the spur through them.

The outer disk, *i*, is furthermore provided with an opening, *l*, through which is made to project a quadrangular piece of leather, india-rubber, or other like substance, inserted between the two disks. This opening *l*, which thus forms the holder of a projecting or swell cushion or buffer, is diametrically opposite the slot *n* before referred to, so that when the fastener on the barrel is turned upon its pivot half a rotation its spur will come in contact with the cushion and become softly wedged in that position. Thus all tendency to turn round or to rattle is obviated.

In using this carriage-curtain fastener, I take the screw and put it through the revolving barrel, which, as before said, is of the same length as the shank of the screw between the head and the thread, and then put on the little metallic washer, which is of a slightly larger diameter than the barrel of the screw and the revolving barrel, and then I put onto it the leather washer, which is of larger diameter than the metallic washer. I then insert the screw firmly into the frame-work of the carriage. I am enabled to do this, by reason of the shoulder upon the screw and the metallic washer, without preventing the revolving barrel from being easily turned around the screw. The metallic washer, besides this office of enabling me to fasten the screw firmly to the frame-work of the carriage, presents a hard and substantially anti-friction surface against the revolving barrel, and prevents the wear which would take place were not the metallic washer used.

The hole in the curtain I prefer to make of a smaller diameter than the metallic disks

which surround it, as shown in Fig. 6, and thus prevent rattle of the edges of the metallic disks against the revolving barrel.

When the fastener is attached to leather or other flexible portion of the carriage, I dispense with the leather washer *g*, but place on the side opposite to the fastener a nut, *o*, which is composed of a disk notched on the sides, to enable one to hold the same in position when the screw is applied. I also, to prevent the same from rotating and wearing the leather, provide the same, upon its inner face, with one or more little prongs, *p*, which indent themselves into the leather *q*, or other soft flexible material to which the attachment is secured.

What I claim, and desire to secure by Letters Patent, is as follows:

1. Carriage-curtain fastener composed of a spurred barrel revolving upon the cylindrical shank, and of a shouldered screw, substantially as shown and set forth.

2. The combination, with the shouldered screw and spurred barrel, both the shank of said screw and the barrel being of even length, of a leather and a metal washer, as and for the purposes set forth.

3. A grommet the face-plate of which is provided with a projecting ridge or swell of leather, or other soft and compressible material, as and for the purposes set forth.

4. The combination, with the spurred barrel revolving upon the cylindrical shank of a screw, of an indented and pronged or otherwise equivalently-formed nut, the whole being arranged, in connection with a metallic washer, upon thin and flexible portion of the carriage, as shown and set forth.

GEO. F. WILSON.

Witnesses:

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