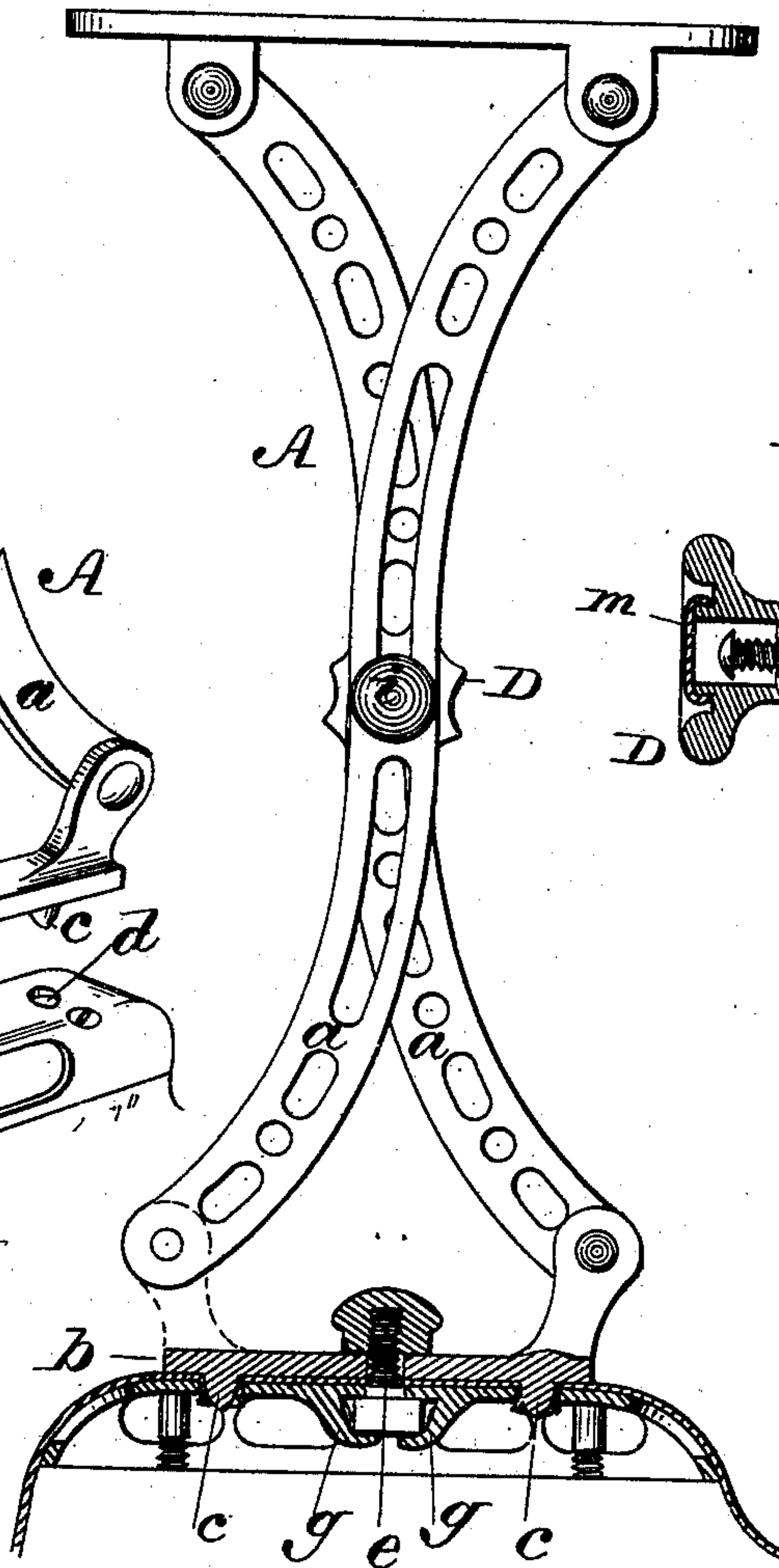


H. W. WARNER.  
Vehicle Top.

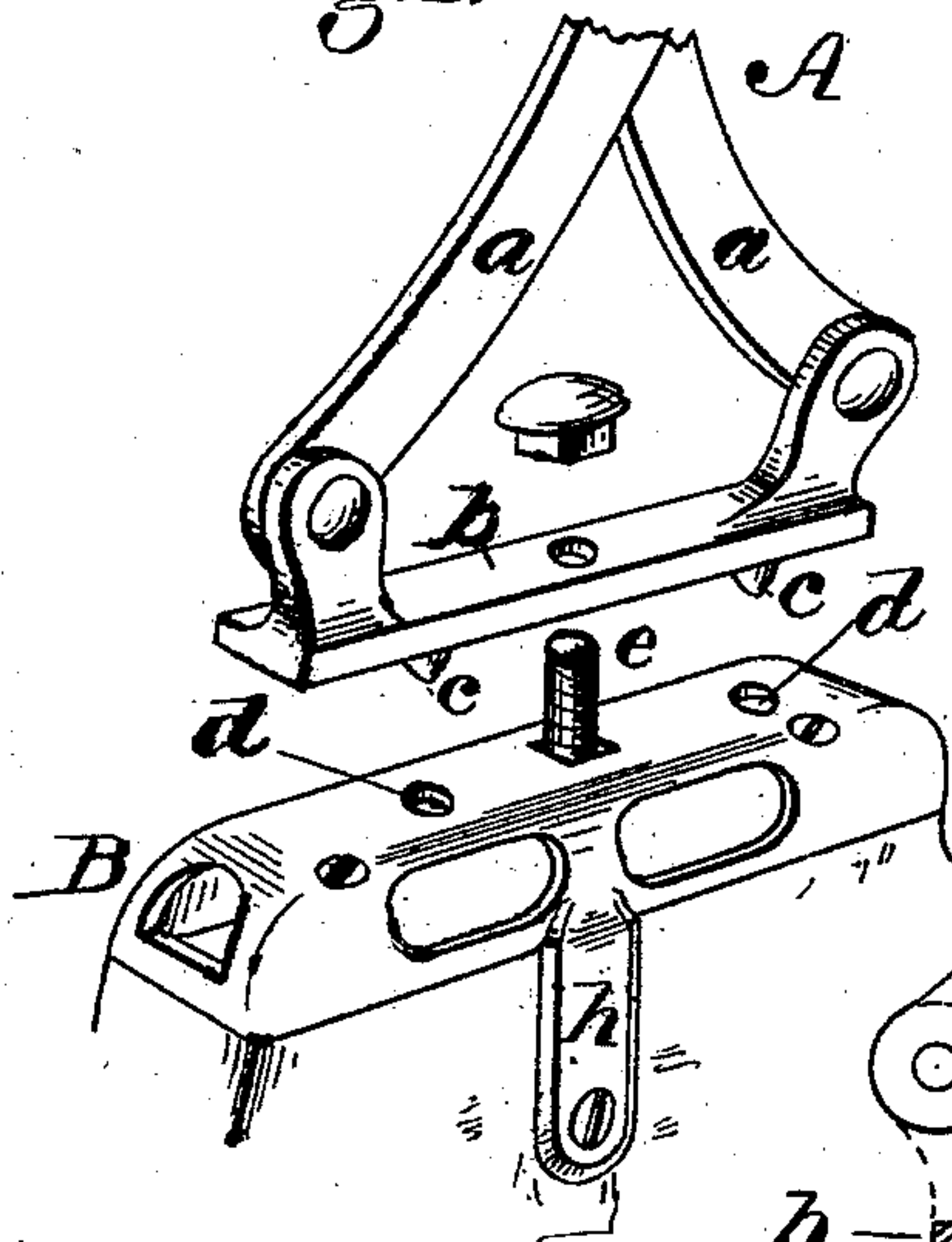
No. 166,165.

Patented July 27, 1875.

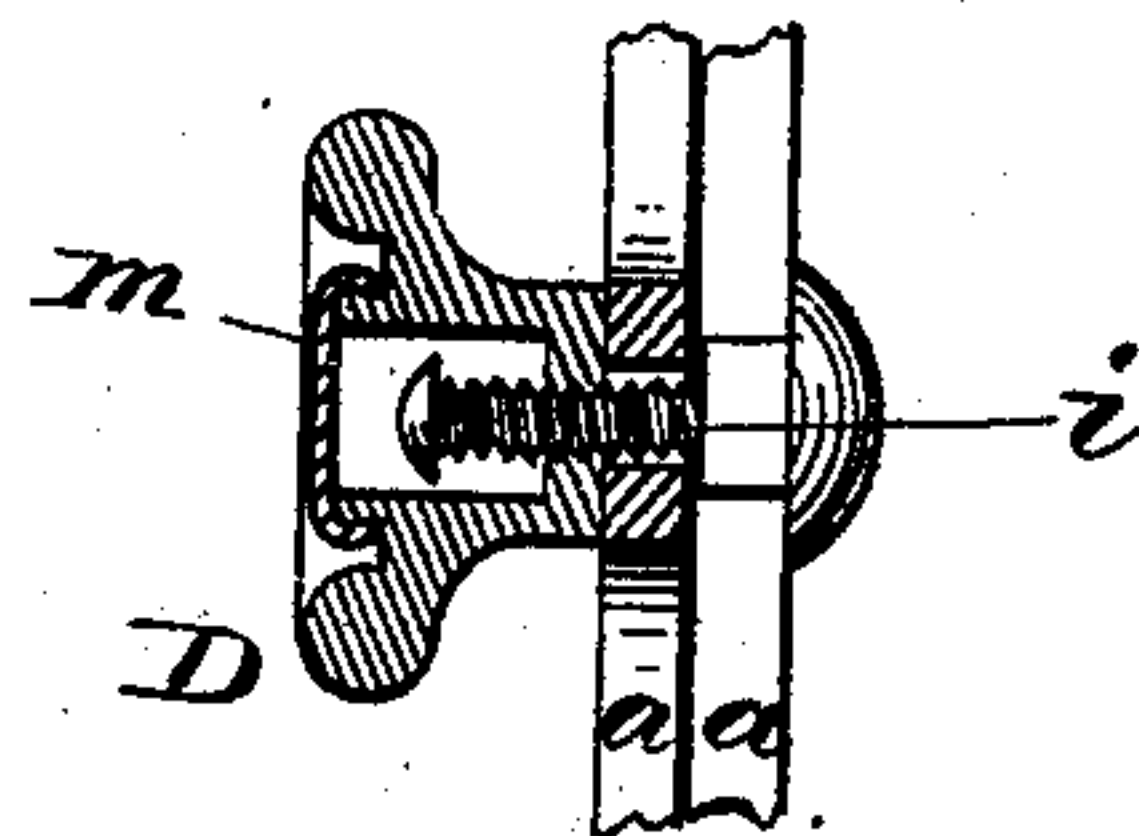
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:  
Hill St. Dodge  
Donn Twitchell.

Inventor:  
H. W. Warner.  
By his attys  
Dodge & Son

# UNITED STATES PATENT OFFICE.

HENRY W. WARNER, OF GREENFIELD, MASSACHUSETTS.

## IMPROVEMENT IN VEHICLE-TOPS.

Specification forming part of Letters Patent No. 166,165, dated July 27, 1875; application filed July 3, 1875.

*To all whom it may concern:*

Be it known that I, HENRY WARREN WARNER, of Greenfield, in the county of Franklin and State of Massachusetts, have invented certain Improvements in Carriage-Tops, of which the following is a specification:

My invention consists in the peculiar construction and combination of a canopy-standard or top frame, and a detachable base-piece therefor.

Figure 1 represents an elevation of my improved standard, with its foot and base-piece in section; Fig. 2, a perspective view of the foot of the standard and the base-piece detached therefrom; Fig. 3, a central cross-section of the standard and the fastening-nut, showing the manner in which the cap is applied thereto.

The object of the first feature of my invention is to facilitate the application of the standards or side frames, by which the canopy or top is supported, as well as to reduce the expense of fitting and upholstering around the base of the same; and to this end the invention consists in the employment of a base-plate provided with dowel-holes and a bolt, in combination with a standard provided with dowel-pins and a bolt-hole, so that the base-plate may be secured in place on the naked body of the carriage, and covered with the upholstering material, and then the top readily adjusted in position by entering the dowel-pins through the covering into the holes in the base-plate, and secured in place by applying a nut to the upper end of the bolt which extends up through the covering material and the foot-plate of the standard. In order to avoid the trouble and expense of padding or stuffing around the foot of the standard, the base-piece is made hollow, and of the proper form to give the desired rise or swell to the covering or upholstering.

In the drawing, A represents one of the canopy-standards, which may be made of any suitable form, but consisting in the present instance of two crossed legs, *a*, pivoted to a foot-plate, *b*. B represents my improved base-piece, to which the standard is secured. C represents the body of the carriage, to which

the base-piece is secured; and D represents the thumb-screw, by which the legs of the standard are clamped together. The foot-plate or bottom piece *b* of the standard I provide at its ends with two depending dowel-pins, *c*, and a central hole, *d*, the latter to receive the bolt by which the standard is secured to the carriage. The base-piece B I make of a hollow raised form to take the place of the usual cushioning or padding on the arm of the body, and in its upper face, which is adapted to receive the foot piece or plate *b*, I make two holes, *d*, to receive the pins *c*. In the center of the base-piece I form a hole to receive a vertical bolt, *e*, and on the inside I form two lugs, *g*, to bear against the head of the bolt and keep the same from turning. Ordinarily the base-piece is made of malleable iron, so that the ends of the lugs *g* may be hammered down over the head of the bolt to prevent its loss or displacement while the parts are being shipped and handled. In order to render the base-piece as light and cheap as possible it is cut away in a skeleton form, as shown; and in order to render its attachment to the body secure it is provided with a depending arm, *h*, to be screwed fast to the side of the body, as shown. In applying the standard to a carriage the detached base-piece B is first secured to the arm or side of the body, as shown in Fig. 2, and the covering secured in place over the same, the upper end of the bolt being permitted to pass up through the covering. The foot piece or plate *b* of the standard is then slipped upon the upper end of the bolt, the dowel-pins *c* forced down through the covering into the holes in the base-piece, and then a nut, D, applied to the upper end of the bolt and screwed down tightly in place, as shown in Fig. 1. The raised base-piece avoids the necessity of padding or stuffing, the dowel-pins guide the standards to the exact positions required, and the pins and bolt hold the standards firmly in position. It is obvious that when the fixed central bolt is employed a single pin will answer a very good purpose; that when the two dowel-pins are employed the fastening-bolt may be readily inserted from above, instead of from below; and that, if



preferred, the pins may be on the base-piece, and the holes or cavities to receive them made in the upper part.

The second feature of my invention consists in the manner of applying the clamp to the thumb-nut, as illustrated in Fig. 3. The two legs of the standard are united by a bolt, *i*, to the end of which there is applied a thumb-nut, *D*, by turning which the legs may be clamped together and held in position. To prevent the loss of the nut the end of the bolt is upset and enlarged, as shown, the nut being made of extra thickness, and provided with an enlarged hole or chamber around the end of the bolt, which is thereby protected and prevented from catching upon the clothing or person of the attendant or occupant of the carriage. In order to conceal the end of the bolt a flange, *m*, is formed around the face of the bolt-hole on the nut, and a flanged cap or cover, *n*, applied over and around the same. The cap will be crowded or sprung on with

sufficient tightness to prevent its loss; and, if found necessary, the flange will be slightly enlarged at its outer edge in order that the cap may take a stronger hold thereon.

Having described my invention, what I claim is—

1. The combination of a canopy-standard and a detachable base-piece therefor, provided with dowel-pins and holes or their equivalents, substantially as shown and described.

2. The combination of the base-piece *B*, provided with the central fixed bolt and the holes, with the standard having its foot provided with the bolt hole and pins, as shown.

3. A hollow raised base-piece, *B*, for a canopy-standard, adapted to take the place of the customary stuffing or cushioning under the covering, as shown and described.

HENRY W. WARNER.

Witnesses:

FRANK N. BULLOCK,  
J. H. SANDERSON.