(No Model.)

F. A. NEIDER.

CARRIAGE CURTAIN KNOB.

No. 590,768. Patented Sept. 28, 1897.



FIG. 1.

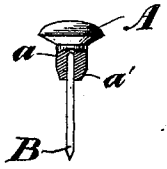

FIG. 2.

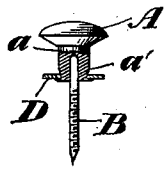

FIG. 3.

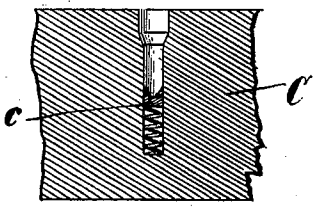

FIG. 4.

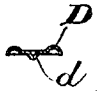

FIG. 5.

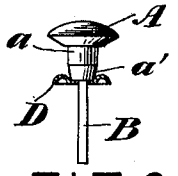

FIG. 6.

Witnesses
Frank D. Davis
Emma Lyford

Inventor
Fred A. Neider
By Geo. J. Murray
Atty

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRED A. NEIDER, OF AUGUSTA, KENTUCKY.

CARRIAGE-CURTAIN KNOB.

SPECIFICATION forming part of Letters Patent No. 590,768, dated September 28, 1897.

Application filed September 14, 1894. Serial No. 522,988. (No model.)

To all whom it may concern:

Be it known that I, FRED A. NEIDER, a citizen of the United States, and a resident of Augusta, in the county of Bracken and State of Kentucky, have invented certain new and useful Improvements in Carriage-Curtain Knobs, of which the following is a specification.

My invention relates to metal knobs for carriage-curtains; and it consists of a wrought-metal head clamped or compressed upon a wrought-metal shank and the method for producing the same.

It also consists of other features, which adapt the knob to various uses, all of which will be first fully described in connection with the accompanying drawings and then particularly referred to and pointed out in the claims.

In the drawings, Figure 1 is a view, partly in elevation and partly in central section, of a knob-head made according to my invention. Fig. 2 is a similar view of the head with the shank in position and the lower end of the neck compressed to hold the shank firmly in place. Fig. 3 is a similar view of a curtain-knob with a washer placed over the tapered end of the neck, the lower edge of which is upset against the under face of the washer to hold it in place. Fig. 4 is a sectional view of the die employed to compress the neck upon the shank of the knob. Fig. 5 is a sectional view of a blank for the washer when the same is used on the shank instead of upon the neck of the knob. Fig. 6 is a view similar to Figs. 2 and 3, showing the knob with the washer upon the shank.

The form of curtain-knob now in general use consists of a cast-metal head and neck which is molded onto a wrought-metal shank. The cast metal is brittle and liable to be broken in driving the knob to its place or in riveting when attaching it to the metal portions of the vehicle body or top, and the head or cast-metal portion requires considerable trouble to finish it or japan it properly, as the cast metal when it leaves the mold is not exteriorly smooth. I have devised means to produce a wrought-metal knob which is stronger and better than the old style with the cast-metal head, which knob can be produced cheaper than the cast-metal knob and is more easily finished and presents a cleaner and neater appearance. To accomplish this result, I first form up in a rivet or heading machine the head A, having a neck *a*, from a wire rod of substantially the same diameter as the neck *a*. After the head is formed the neck *a* is axially perforated, the perforation being large enough to loosely receive the shank B, which is a wire rod either pointed for driving, as shown in Figs. 2 and 3, or cut off square at the end for riveting, as shown in Fig. 6.

When the parts are formed as described, the shank B is dropped into a recess or perforation in the die C, which is preferably fitted with a spring-pressed flange *c*, and has the upper portion of the perforation countersunk to substantially the shape of the finished neck *a'*. The head is then placed over the pin and driven down into the die, which compresses the neck to a cone shape, as shown in Figs. 2, 3, and 6, firmly clamping the neck upon the shank B and completing the knob, as seen in Fig. 2, which form may be employed when the knob is driven into hard wood or into metal; but when the knob is to be used with softer wood or with leather-covered portions it is desirable to have the lower end of the neck provided with a washer.

In the form shown in Fig. 3 the washer D is an ordinary annular disk perforated to fit over the lower cone-shaped portion of the neck *a'*, which portion may be driven firmly into it to hold the washer in place, or if a more permanent attachment is desired the lower edge of the neck may be upset against the under side of the washer, as clearly seen in Fig. 3; but the preferred form of washer is that shown in Figs. 5 and 6, which fits over the shank B underneath the neck *a'*. To form this washer, the blank is struck up, as seen in Fig. 5, but not centrally perforated, the depression *d* being formed in stamping to center the point to the shank. To place the washer in position, it is set over a die having a perforation of a size to receive the shank, the shank-point placed in the depression in the upper side of the washer, and the shank driven through until the washer is forced against the neck *a'*. The pointed shank (shown in Figs. 2 and 3) will drive the metal in the washer outward and upset it against the shank when the head is driven

down upon the die, and when the blunt or riveting shank, Fig. 6, is driven through it acts as the upper or male punch of the die and cuts its own hole through the washer, discharging the blank portion beneath.

I have indicated my simple form of die for compressing the neck upon the shank; but it is obvious that many other appliances may be used for the same purpose, as the essence of the invention is in forming the head and shank in separate parts and compressing the neck upon the shank to hold it securely in place.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the curtain-knob, having head and neck formed from a single piece of wrought metal, said neck being axially bored, the shank held in said bore by compressing the end of said neck upon it, and a washer held at the lower end of said neck by upsetting the metal against the under side of said washer, substantially as shown and described.

2. The hereinbefore-described carriage-curtain knob, consisting of the head and neck, A, *a*, stamped or formed up of a single piece of wrought metal, having the neck axially perforated, the shank, B, loosely fitting said perforation and said neck having its lower end compressed upon the shank, forming the bevel, *a'*, the washer centrally perforated to pass over the beveled end of said neck, the lower end passing through the perforation and being upset against the under side of said washer, as a new article of manufacture.

FRED A. NEIDER.

Witnesses:
F. W. ALLEN,
BEN HARBESON.