

A. SEARLS.

Improvement in Top Prop for Carriages.

No. 124,291.

Patented March 5, 1872.

Fig. 1.

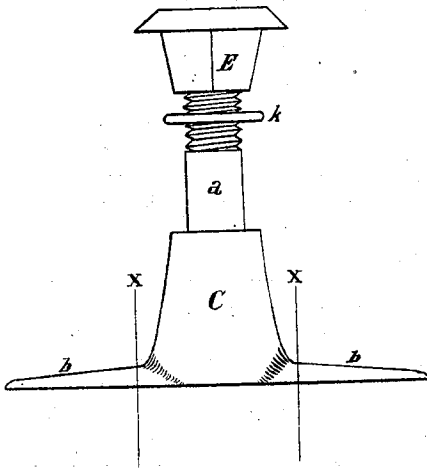


Fig. 2.

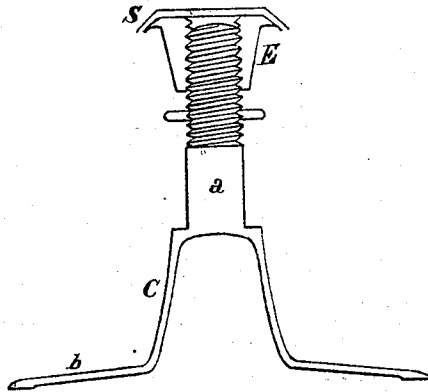


Fig. 3.

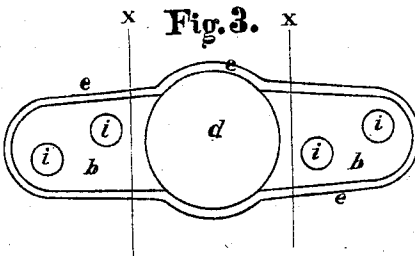


Fig. 4.



Fig. 6.

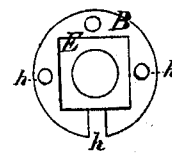


Fig. 7.

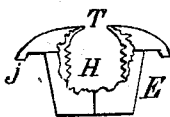


Fig. 5.



WITNESSES

John A. Gifford
Ephraim Pratt

INVENTOR

A. Searls

UNITED STATES PATENT OFFICE.

ANSON SEARLS, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN TOP-PROPS FOR CARRIAGES.

Specification forming part of Letters Patent No. 124,291, dated March 5, 1872.

SPECIFICATION.

I, ANSON SEARLS, of Newark, county of Essex, State of New Jersey, have invented certain Improvements in "Top-Props for Carriages," for which the following is a specification:

The nature and objects of my invention consist in the construction of top-props for carriages; and relates, first, to such a construction of the bow-plates as to strengthen the weak parts, and cause them to sit firm on the bow where it may be placed; second, to the construction of what is known to the trade as the "common top-prop," whereby a reduction of cost is obtained and the appearance and strength at the same time improved by making the base tubular; third, to casting the nut with a semi-solid head, and with holes in the rim, into which the solder may run; fourth, to the combination of a lock-nut and the usual capped nut with the joint-bar standard for securely holding the prop-joints.

Figure 1 is a view of the prop and the nuts K and E. Fig. 2 is a longitudinal view of the same and of the silver cap S. Fig. 3 is a view of the base of the prop or bow-plate *b*, showing the concave form of the base of the plate and the rim *e*. Fig. 4 is a transverse section of the plate *b*, at the line *x*, showing the rim *e* and the concave form. Fig. 5 is a view of the nut E, cut away so as to show a sectional view of the flange B and the usual form of casting by making the hole largest at the top R. Fig. 6 is a transverse section of the nut E at the flange B, showing slots or holes *h*. Fig. 7 is a view of the nut E, when made with semi-solid head, with the smallest end of the hole at the top T and the rim *j*.

Common top-props are usually made by casting the joint-bar standard and the bow-plate in one piece, the standard having a ring or flange around it to form the inside shoulder of the joints. The improved props have been made by leaving off the ring or flange and passing a cap over the standard, so that it forms the inside shoulder of the prop-joints, and also serves to cover the hole in the leather when the bow-plate is attached under the leather.

My improvement consists in attaching to the outer end of the cap *c* the standard *a*, and to the sides of the base of the cap *c* the wings or plates *b*. The whole is cast in one piece and attached to the bow outside of the leather by screws passing through the wings B and leather into the bow. The usual plate and standard is not used in my improvement. The cavity *d* forming the cap *c* gives great strength to that part and renders it lighter and cheaper cast than the old common prop, and gives it all the ornamental appearance of any improved prop. The base of bow-plates have been made flat and when attached to the bow do not sit firm, from the fact that the bow at that place is not always flat, and is sometimes covered with a yielding substance that allows the plate to roll. My improvement consists in making the base of the bow-plate concave and providing it with a rim or raise, *e*, Figs. 3 and 4, on either side of the base of the plate that extends past the screw-holes or entirely around the edge of the plate. The plate, when put on the outside of the leather, as with common top-props, bears on the rim or edge *e*. The rim *e* may encircle the screw-holes to still further equalize the strength of the parts. The lock-nut K is used for the outside bearing of the prop-joints, and the nut E is screwed up jam against it. The two nuts E and K, combined with the standard *a*, make a secure bearing for the prop-joints. The prop-nuts are usually made so that the hole runs straight through them, as shown in Fig. 5, and in such a manner that if screwed up a little too far the silver cap will be punched by the end of the prop or seat-rail and sometimes forces off the cap. To remedy this I make the hole H in the outer end of the nut smaller than on the inside, allowing a hole large enough at T, Fig. 7, for the core to prick through, and thereby assist it to stand while the nut is being cast. The nut is drilled out and tapered, leaving it with a semi-solid head, so that when screwed up the end of the prop cannot pass through and punch the silver. I also make the flange B, Fig. 6, with holes or slots *h*, through and into which the solder runs in capping, so that

the solder and cap cannot be forced from the nut.

Claims.

1. The cap *c*, plates or wings *b*, and standard *a*, combined and cast in one piece, substantially as described, and for the purpose set forth.

2. In a common top-prop, the cavity *d*, extending up to or near the inside shoulder of the prop-joints, substantially as set forth.

3. The lock-nut *K*, when used in combination with the nut *E* and joint-bar standard *a*, substantially as described.

4. The bow-plate *b*, when made concave on the base or provided with the rims *c*, substantially as described, and for the purpose set forth.

5. The semi-solid head-nut *E*.

6. The nut *E*, when provided with the holes *h* in the flange *B*, for the purpose set forth.

ANSON SEARLS.

Signed in presence of—

EPHRAIM BEACH,
JOHN A. GIFFORD.