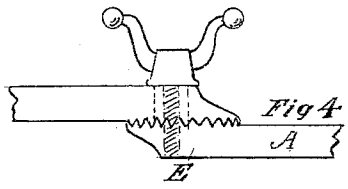
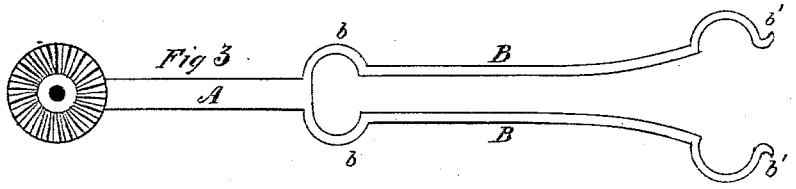
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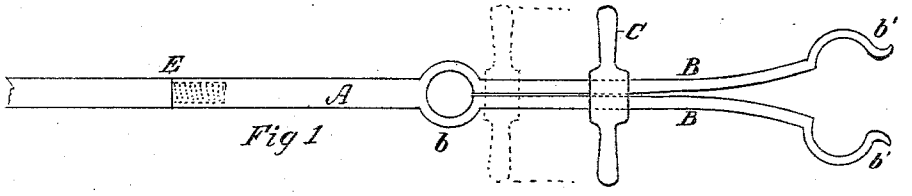
T. ZANGER.

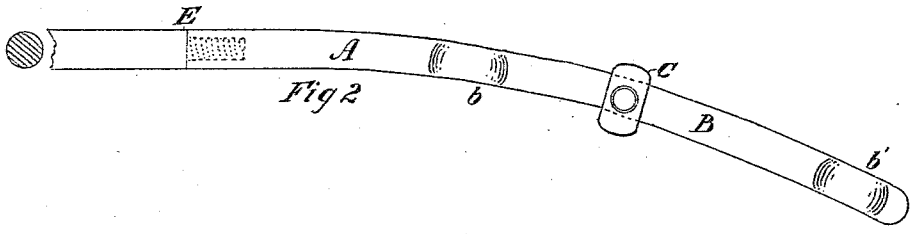
CLAMP FOR CANOPY TOPS.

No. 300,427. Patented June 17, 1884.









Witnesses:
J. B. Sarech
W. O. Dutton

Inventor:
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UNITED STATES PATENT OFFICE.

THEODOR ZANGER, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF TO J. B. SWEET & SON, OF SAME PLACE.

CLAMP FOR CANOPY-TOPS.

SPECIFICATION forming part of Letters Patent No. 300,427, dated June 17, 1884.

Application filed January 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, THEODOR ZANGER, a citizen of the United States, residing at the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Malleable Clamps for Use on Children's Carriages and the Like, of which the following is a specification when taken in connection with the accompanying drawings.

My invention relates to clamps such as are used for securing to their supports the parasols used upon children's carriages.

The object of my invention is to provide a more desirable device than those now known and used for the purpose, and one that can be produced at a less cost. To this end I change the clamp in form and use a different material in its construction.

Heretofore it has been common to construct these clamps of steel; but repeated experiments have proven to me the feasibility of constructing them of malleable cast-iron. This results in a very great saving in price without lessening the utility of the holder.

The accompanying drawings illustrate my invention, in which Figure 1 represents a top view of the improved spring-clamp. Fig. 2 represents a side view thereof. Fig. 3 represents a top view of the device with a notched head having a screw-threaded central perforation. Fig. 4 represents a side view of the notched head of the clamp united by a thumb-screw to the notched head of the supporting-rod.

A designates the body portion, B B bifurcations, *b b'* and *b b'* curves in bifurcations, and C the attaching-joint. The changes in form which I make are not necessary by reason of the material I use, as it is equally well adapted for use in constructing any of the forms now in common use.

The spring-clamp forming the subject of this application is shown, but not claimed by itself, in another application filed by me January 7, 1884, and bearing serial number 116,595, for Letters Patent for an improved support for parasols or canopy-tops, and, as before remarked, the clamp is equally desirable for use on supports differently constructed from the one shown.

In constructing this device it will be found advantageous to so proportion the metal in both bifurcations that the strain brought upon the device in inserting or removing the parasol will be pretty nearly equal at all points from the body A to *b'* and by each bifurcation. This result may be partially accomplished at the molding, and grinding will do the rest. The mode in which these devices secure the parasol and permit its removal need not be explained, as it is already understood.

If the butt or joint end of the device be flattened, rounded, perforated, and provided with cogs in the manner shown by Fig. 3, and the perforation screw-threaded, the device will be found very desirable for use upon supports having a terminal joint similar to the one here shown, Fig. 4; and when thus constructed a thumb-headed screw-bolt will give ready control over and perfect safety to the joint.

The construction and use of the several forms shown will readily be understood from an inspection of the figures.

A further description of the clamp is as follows, viz: It is cast in the usual manner of casting such articles and with the bifurcations distended in about the position shown in Fig. 3. The casting is then subject to an annealing process, which renders it malleable. It is not, however, left in the oven quite so long as the ordinary malleable-iron casting. After the casting has been removed from the oven and has become entirely cool, the bifurcations are hammered (by hand) until they acquire sufficient hardness and elasticity. The bifurcations I confine closed by means of a screw or open ring or sleeve, C. I have shown a sleeve of malleable cast-iron, with a projection upon either side to aid in forcing it to or from a given point, and of sufficient thickness to retain its position after being sprung upon the clamp. Now, by moving this sleeve toward or from the ends of the bifurcations, the clamp will open or close according to the direction in which the sleeve is moved.

The clamp may be straight or arched, according to the position desired to be given the parasol.

I am aware of the patent to Gibson, of Au-

gust 9, 1881, and of the patent to Tibbals, of July 11, 1882, and of the patent to Downing, of October 9, 1883, and I claim nothing therein either shown or described.

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

1. As a new article of manufacture for sustaining parasols upon their supports, a spring-clamp controlled and confined by means of sleeve C, and having a main or body portion, A, bifurcations B B, having curves *b* and *b'*, and a circular joint-head, E, provided with cogs *d*, and a threaded perforation, all substantially as shown, and for the purposes set forth.

2. As an article of manufacture, a spring-clamp composed of malleable cast-iron, having spring-bifurcations, and means for readily connecting it to and detaching it from its support.

3. As an article of manufacture, a bifurcated spring-clamp adapted for use on children's carriages for supporting parasols, composed of malleable cast-iron, and having a sliding sleeve, C, for controlling the position of the bifurcations in relation to each other, and a joint-head formed for ready connection to the supporting-rod.

THEODOR ZANGER.

Witnesses:
LEONIDAS DOTY,
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