No. 647,169. Patented Apr. 10, 1900.

E. H. VOGEL.

FASTENER FOR RODS OR PIPES.

(No Model.) (Application filed Apr. 5, 1898. Renewed Jan. 30, 1900.)

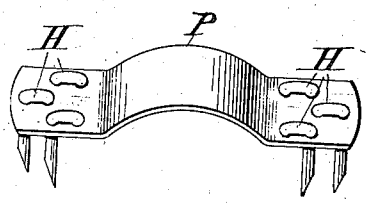


Fig 1

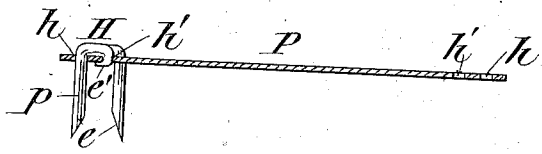


Fig 2

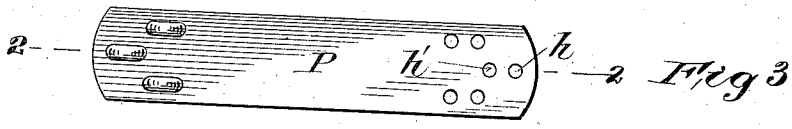


Fig 3



Fig 4

WITNESSES

C. W. Benjamin

P. B. Wormley

INVENTOR

Ernest H. Vogel

BY A. G. Wormley

his ATTORNEY

UNITED STATES PATENT OFFICE.

ERNEST H. VOGEL, OF NEW YORK, N. Y., ASSIGNOR TO THE CARY MANUFACTURING COMPANY, OF SAME PLACE.

FASTENER FOR RODS OR PIPES.

SPECIFICATION forming part of Letters Patent No. 647,169, dated April 10, 1900.

Application filed April 5, 1898. Renewed January 30, 1900. Serial No. 3,296. (No model.)

To all whom it may concern:

Be it known that I, ERNEST H. VOGEL, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fasteners for Rods or Pipes or other Devices, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same, in which—

Figure 1 is a perspective view of a device embodying my invention. Fig. 2 is a vertical longitudinal sectional view of a plate of such a device, the prongs being omitted from one end and those at the other end shown in full lines. Fig. 3 is a face view of such a plate with some prongs in position, and Fig. 4 is an elevation of such prong when unbent.

My desire is to produce a strong fastener—that is, one whose prongs will hold firmly in what they are driven into, one which may be easily driven, and yet one whose body may be bent to accommodate its intended location. If I endeavor to provide a long stiff prong by striking up the material of the plate, I must use a heavy plate, much heavier than is otherwise needed, and the lengths of the prongs are necessarily limited to that of the available material which may be removed from the plate. It is almost impracticable to get as stiff a prong as is desired for many uses by such a method. If it were accomplished, then the plate, being heavy, would be a waste of material, as so much weight is not often needed to give sufficient strength to hold all and more than all that can be sustained without drawing out the prongs. Moreover, as in supporting pipes or in other uses it might be necessary to bend the plate more or less to accommodate different situations, undue material in the plate is an objection, as presenting undue resistance to flexure where flexure is often desired. Nor is the driving-surface as desirable in a plate thus arranged as in the one shown. On the other hand, if I use a plate and prong not secured together there is the disadvantage of being obliged to insert each prong separately, oftentimes while holding up the article to be secured, and also to drive each separately—that is, drive one after the other—since the hammer could not well be operated to drive at one blow three separate prongs which are merely inserted loosely in the plate. I avoid all these objections.

First, I take a plate P of such length, width, and thickness as may be desired for the use it is to subserve, regardless of the question of prong, and I preferably perforate it at the ends with holes h h' for the securing of the prongs, preferably two holes for each prong, as shown. Then, having prepared the prongs p of such length, diameter, and sharpness at the point as I wish, preferably beveling both ends, I insert the end e of each prong through one perforation, bend it over, force it through the other perforation, and secure it in place by flattening down the short beveled end e', as shown. I may not always follow the exact order of exercises herein set forth, as it may be desirable, especially in machine-work, to vary the steps noted; but in fashioning an article such as shown the proceedings noted in some order would be observed. Nor do I mean to limit myself to a Chinese copy of the device shown.

My purpose is to produce a fastener composed of a plate and one or more independent prongs secured thereto so as to be held in position to present a good driving surface or head H and yet to be so arranged as to present no objectionable protuberance below that would greatly interfere with the holding of the plate of the fastener close to the supporting object. At the same time I do prefer the particular style of fastener shown. Its plate may be readily struck out of suitable sheet metal and perforated for the reception of the prongs. Though of great tensile strength it may be of quite flexible material, so light in weight as to waste substantially nothing in its make up. At the same time the prongs may be made of wire of a heavy gage, if desired, and any wished-for length and form. The beveling of the "short" end (so called) permits it to be riveted down substantially flat on the under side of the plate and the bight of the material of the prong passing over the upper surface of the plate presents an excellent head for driving. The three prongs thus arranged may be driven as one. They take a firm hold and the united article presents just the features desired and

avoids those which are objectionable. Of course I may vary the number of the prongs, as well as their proportions or arrangement or other features. So, too, I might avoid perforations by passing the bight of the prong across the plate instead of through it.

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

1. As a new article of manufacture, a fastening device composed of a plate and one or more independent prongs, portions of which prong lie on each side of and embrace or clamp some portion of the plate between them, the part below being in line with that above and in the same plane with the projecting prong, one end of said prong extending beyond the under side of the plate to constitute a prong proper and another portion being left upon the upper side of the plate, substantially as set forth, whereby it will constitute a driving-head, all combined substantially as set forth.

2. As a new article of manufacture, a fastening device composed of a plate and one or more independent prongs, one end of the prong extending through an aperture in the plate to form a prong proper, the middle portion extending along the upper surface of the plate in a right line to a second aperture and forming a driving-head and the other end being passed through said second aperture, and bent down upon the opposite face of the plate, in the same plane as the remainder of the prong, which constitutes the head and the prong proper, all substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 1st day of April, A. D. 1898.

ERNEST H. VOGEL.

Witnesses:
PETER B. VERMILYA,
A. G. N. VERMILYA.