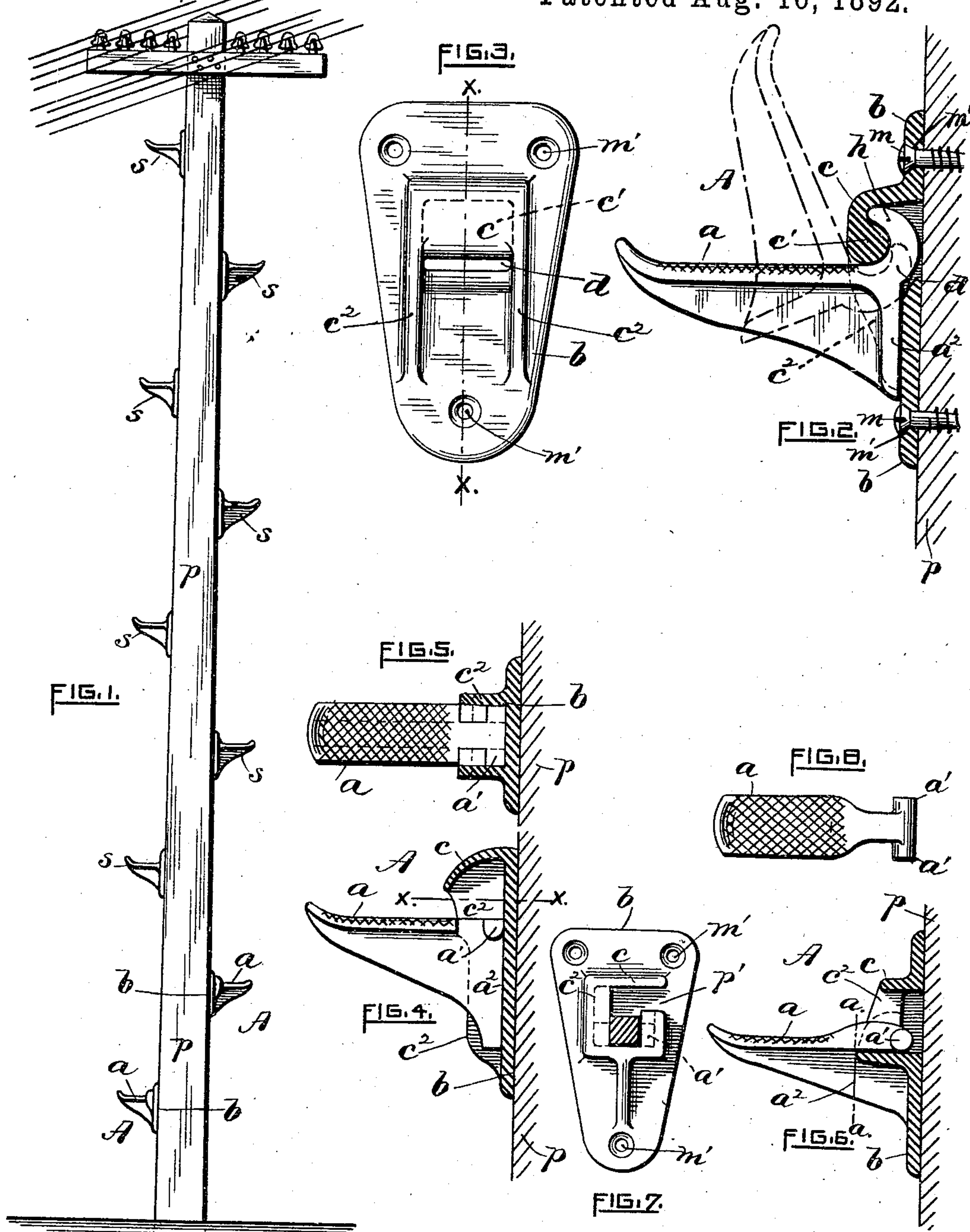


(No Model.)

VAN A. THOMAS.
DETACHABLE STEP FOR POLES.

No. 480,977.

Patented Aug. 16, 1892.



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DETACHABLE STEP FOR POLES.

SPECIFICATION forming part of Letters Patent No. 480,977, dated August 16, 1892.

Application filed November 9, 1891. Serial No. 411,320. (No model.)

To all whom it may concern:

Be it known that I, VAN A. THOMAS, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Detachable Steps for Poles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

In United States Patent No. 459,844, granted to me September 22, 1891, I have described and claimed a novel detachable stop for poles. In that patent the removable step or bracket is held and supported by two vertically-arranged sockets formed on the face of the fixed plate or base, into which sockets the bracket interlocks when in use.

My present improvement relates to the same class of invention. Its peculiarity resides in the novel manner of constructing the plate and bracket, as will be more fully hereinafter set forth and claimed.

In the appended drawings, Figure 1 is a side elevation of a wooden pole carrying electric wires, and further provided with a series of fixed steps and two detachable lower steps or brackets embodying my later improvements. Fig. 2 is an enlarged side view, in partial section, showing the step interlocked with the plate as in use. Fig. 3 is a front view of the permanent plate adapted to be rigidly secured to the pole. Fig. 4 is a side elevation of the step in reduced scale, showing a slightly-modified form. Fig. 5 is a plan view of the same, in partial horizontal section, taken on line *xx* of Fig. 4. Fig. 6 is a similar side elevation. Fig. 7 is a front view of the plate, the step being sectionally represented and taken on line *aa* of Fig. 6; and Fig. 8 is a plan view of the step detached.

The device may be described as follows:

In the several figures, *b* indicates the base or plate portion and *a* the step or bracket portion, the device as a whole being indicated by A. The plate *b* (see Figs. 2 and 3) is provided with one socket only, which is practically inverted, the same being located at or

near the top and projecting from the front, as at *c*. It will be seen that the walls of the upper side of the socket are closed, thereby preventing the entrance of foreign matter. Extending across the inner face of the socket at the mouth or opening *d* is formed the semi-circular or well-rounded projection *c'*, as clearly shown in Fig. 2. The removable step or bracket *a* is provided at its inner end with the upwardly-bent hook *h*, the latter being adapted to be passed through said opening *d* and rest upon the projection *c'* of the base. The lower portion of the corresponding end of the bracket is extended downwardly to form the flange *a'*, which in use bears against the base *b*, the latter acting as a fulcrum therefor, as shown in said Fig. 2. The side ribs *c'* of the base serve not only to strengthen the socket-walls, but also serve to guide and steady the step laterally.

In Figs. 4 and 5 the base and bracket are made substantially as just described—that is, there is but one socket or support for the bracket *a*, the same being located at the top and provided with a cover or shield *c* and side ribs *c'* to protect the socket opening or chamber containing the seat for the lateral projecting lugs *a'* of the step.

In Figs. 6, 7, and 8 the construction and arrangement of the parts are substantially like the foregoing, a single protected upper socket being employed to receive and hold the bracket *a*. A portion of one side of the socket is removed, as at *p'*, Fig. 7, in order to freely admit the corresponding end of the bracket.

In practical use the major portion of the pole *p*, Fig. 1, may be provided with a series of permanent steps *s*, the lower portion having secured thereto, say, two plates or bases *b*, these being rigidly attached to the poles by means of screws *m*. (See Fig. 2.) In ascending the pole thus provided with plates *b* the lineman or lamp-trimmer or other authorized person first takes from his pocket two brackets or steps *a* and readily inserts them into the respective sockets or seats formed in the permanent plates. He next ascends the pole, and after performing the work required descends to the ground, then removes the two steps from the plates, and returns them to his pocket.

It will be seen that when in use my im-

proved step is supported solely by means of the end hook or projection resting loosely upon a correspondingly-shaped seat formed in the protected socket-chamber located in the upper portion of the base-plate *b*, the lower portion of the corresponding end of the step extending downwardly in the form of a flange, which bears against the base *b*, as before described.

10 I claim as my invention—

1. The combination of the base-plate arranged to be permanently secured to a pole provided with a single socket located at the upper portion of the base-plate and having side ribs, as *c*², extending downwardly therefrom, and the detachable step or bracket *a*, having an end thereof arranged to enter and interlock with said socket, the side ribs *c*² at

the same time serving as a lateral guide for the step, substantially as described. 20

2. The detachable pole-step, substantially as hereinbefore described, the same consisting of the base *b*, having a protected top socket, the front or outer wall of which is provided with an inwardly-extending projection, as *c*¹, and the detachable step or bracket *a*, having an end thereof provided with an upwardly-bent hook *h*, arranged to enter the base-socket and rest upon and be supported by the said projection *c*¹. 25 30

In testimony whereof I have affixed my signature in presence of two witnesses.

VAN A. THOMAS.

Witnesses:

CHARLES HANNIGAN,
GEO. H. REMINGTON.