### (No Model.) C. I. LOVEREN. PIN STEM. No. 332,264.

# Patented Dec. 15, 1885.

•

Fig. I.

Fig. 2.

Fig.3.

. -



WITNESSES

Ed. a. newman Al. C. Newman,

INVENTOR CHARLES I. LOVEREN,

By his Attorney E. L. Cum.

N. PETERS. Photo-Lithographer, Washington, D. C.

## UNITED STATES PATENT OFFICE.

CHARLES I. LOVEREN, OF BROOKLYN, NEW YORK.

PIN-STEM.

SPECIFICATION forming part of Letters Patent No. 332,264, dated December 15, 1885.

Application filed January 27, 1885. Serial No. 154,145. (No model.)

To all whom it may concern: Be it known that I, CHARLES I. LOVEREN, a citizen of the United States, residing at Brooklyn, in the State of New York, have invented 5 a new and useful Improvement in Pin-Stems, of which the following is a specification. This invention relates to the construction of the "pin-stems" of brooches and other "pins," in which hinged or pivoted pin-10 stems are employed in connection with scrollcatches or like detents for their point ends. Such pin stems have heretofore customarily been made by soldering together two or more parts. The metal of the shaft of the pin-stem 15 has thus been annealed so as to require rehardening for the better grades of work, while cheaper pin-stems have given trouble and annoyance, and occasioned losses, by quickly losing their elasticity. Without considerable

My improved pin-stem, Figs. 1, 2, and 3, 45 has the customary cylindrical or nearly cylindrical shaft, a, with a sharp point, b, at one end thereof, a broad heel end, c, integral with said shaft, and a hinge "tube" or barrel, d, on the back of said heel end, integral therewith. 50 Heretofore, in forming an otherwise similar pin-stem, Fig. 4, a tube, 1, has been soldered to a plate, 2, and this has been soldered to the heel end of a piece, 3, of wire, the other end of which forms the point, the product consist- 55 ing of three distinct parts, united by two solder-joints, in forming which the parts are materially softened or annealed. On the contrary, in forming my improved pin-stem aforesaid, Figs. 1, 2, and 3, no soldering whatever nor 60 any equivalent thereof is required, and said annealing effect of soldering or the like is avoided, while the original hardness and elasticity of the metal is not only preserved, but in fashioning a single piece of stock to make 65 the several parts therefrom integral with each other, as aforesaid, they are of necessity hardened or tempered in the process, as is well known, and this is highly beneficial in a pinstem. 70 Having thus described my said improvement in pin-stems, I claim as my invention and desire to patent under this specification----The within-described improved pin-stem, of wrought metal, having a cylindrical or nearly 75 cylindrical shaft with a sharp point at one end thereof, a broad heel end integral with said shaft, and a seamless hinge tube or barrel on the back of said heel end, integral therewith, and without solder, substantially as herein set 80 forth.

20 elasticity the pin-stems will not "spring" into their detents properly, so as to be securely fastened, while they soon assume unsightly bends. At the same time such pin stems have been quite expensive to make.

- The present invention consists in an im-25 proved pin-stem, made of suitable stock or wire in one piece and without joints or seams, whereby the original hardness and elasticity of the metal is preserved instead of being lost
- 30 by the annealing effect of soldering, so as to render the pin-stem more effective and durable than those heretofore in use, and the improved article can at the same time be more cheaply manufactured than the old.
- A sheet of drawings accompanies this speci-35 fication as part thereof.

Figure 1 of these drawings is a perspective view of a pin-stem, illustrating this invention; and Figs. 2 and 3 represent, respectively, lon-40 gitudinal and transverse sections thereof. Fig. 4 represents a sectional side view of a pin-stem, as heretofore made. Likeletters of reference indicate corresponding parts in the several figures.

### CHAS. I. LOVEREN.

#### Witnesses:

GILMER CROWELL, JAMES R. MCKEE.