

(Model.)

P. A. CURTIS.
METALLIC SEAL.

No. 271,224.

Patented Jan. 30, 1883.

Fig: 1.

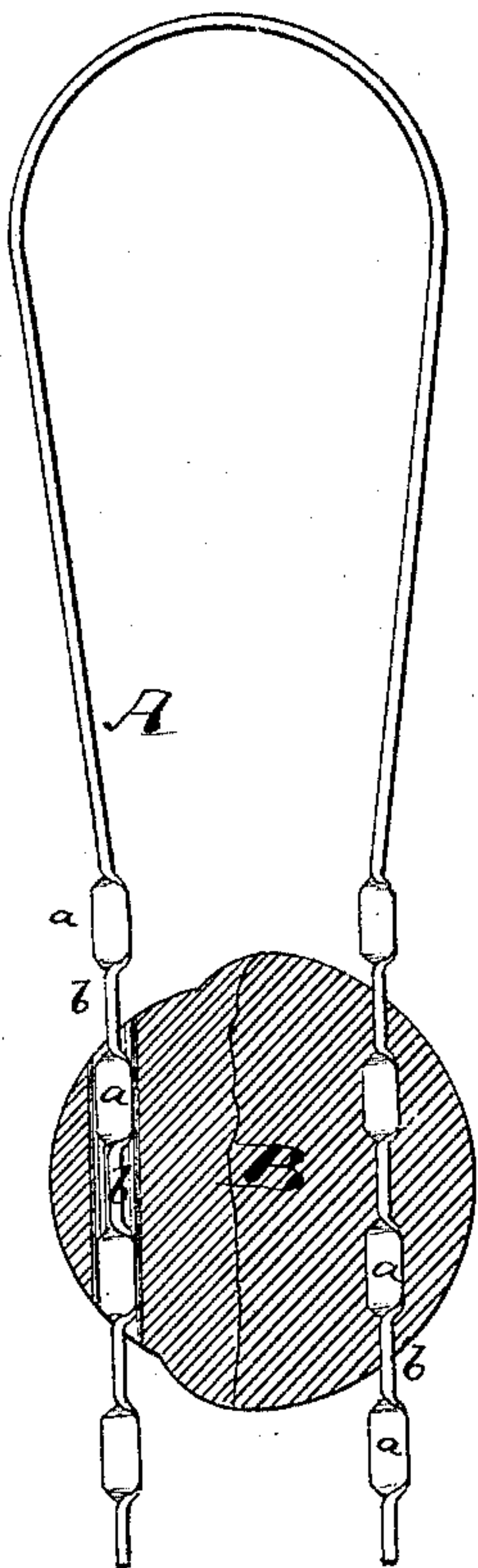


Fig: 2

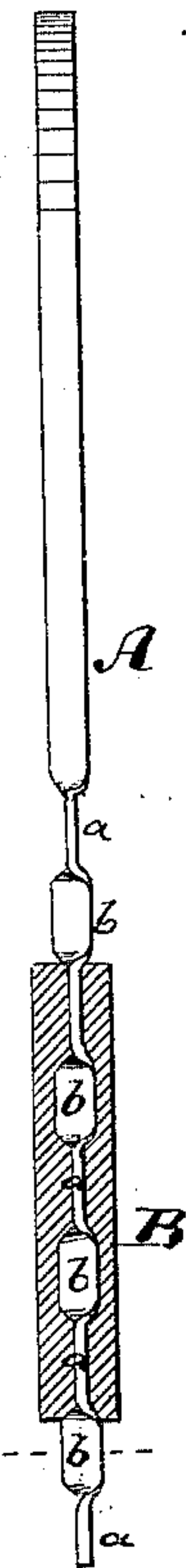


Fig: 3

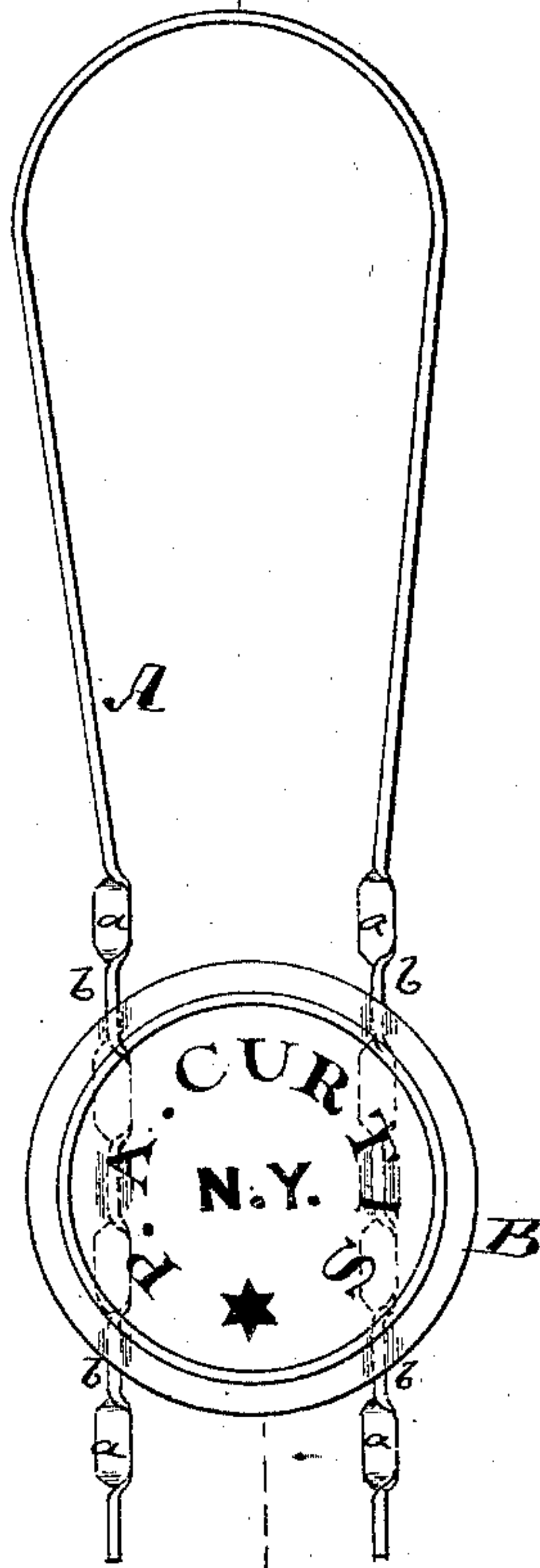
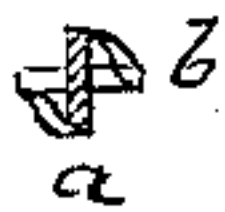


Fig: 4



Witnesses

John C. Tunbridge
Edmund Pruckner

Inventor:

Paul Allen Curtis

by his attorneys

Boieson & Betts

UNITED STATES PATENT OFFICE.

PAUL ALLEN CURTIS, OF NEW YORK, N. Y.

METALLIC SEAL.

SPECIFICATION forming part of Letters Patent No. 271,224, dated January 30, 1883.

Application filed July 21, 1882. (Model.)

To all whom it may concern:

Be it known that I, PAUL ALLEN CURTIS, of New York, in the county and State of New York, have invented Improvements in Metallic Seals, of which the following is a specification.

Figure 1 is a side view, partly in section, of my improved metallic seal. Fig. 2 is an edge view, partly in section, of the same. Fig. 3 is a face view thereof; and Fig. 4 is a detail cross-section through the arm of the shackle.

The object of this invention is to produce a shackle for metallic seals into which the soft metal of the seals will be completely embedded, so as to render their removal without disfigurement impossible.

Heretofore many endeavors have been made to produce on wire or the like a roughened surface, either by indenting the wire on its face, as indicated in Letters Patent No. 179,260, or by cutting teeth into it, as indicated in Letters Patent No. 178,722. The wire is necessarily weakened when parts are cut away, and presents an uneven surface on only two of its edges, which uneven surface is not sufficient to insure the positive embedding of the lead of the seal into the notches on the shackle. Where the metal of the shackle is merely compressed, as in Letters Patent No. 179,260, the same difficulties are met with—namely, that the lead does not find sufficient support in the unevennesses of the shackle to prevent displacement or removal without disfigurement.

My invention consists in twisting the shackle, which is made of flat metal, so as to produce alternate sections that stand at right angles to each other, and therefore alternate ribs and recesses on four of its sides, and if the metal of the seal is even carelessly compressed on the shackle it will be sure to become properly united therewith if it enters into only one or a few of said recesses, which it is sure to do.

In the drawings, the letter A represents the shackle, and B the seal. The shackle is made,

by preference, of flat sheet metal or flattened wire. This metal is so twisted as to produce alternating sections *a* and *b* of said flat metal, which sections stand at substantially right angles to each other—that is to say, each section *a* is substantially parallel with the face of the seal B, and each section *b* is substantially at right angles with the face of the seal B. When the shackle thus made is passed through the seal and the latter is thereupon compressed, the softer metal of the seal will enter into the recesses formed on this twisted shackle, and, moreover, the projecting edges of the sections *a b* will more or less cut into the metal of the seal, thus insuring a complete hold for the said seal on the shackle.

In Fig. 1 the left-hand side shows the seal not yet compressed, while on the right-hand side it is shown compressed, and the manner in which the soft metal of the seal flows into the recesses formed by the twisting of the metal is clearly apparent in this last portion of said view, as it also is in Fig. 2. It is not essential that the band which is thus twisted should have straight edges before it is twisted, as the edges may be roughened or undulating.

The effect produced by my invention will be obtained, but not so perfectly if the flat wire is twisted to form spiral projecting edges of greater or less length between the straight sections *a* and *b*, in which case the said sections need not be at a nearly right angle to one another.

Without claiming a shackle having alternate flat portions, I claim—

The shackle of a metallic seal, having alternate flat portions *a b* and intermediate twisted portions, the flat portions *a* being at right angles to the flat portions *b*, substantially as set forth.

PAUL ALLEN CURTIS.

Witnesses:

WILLY G. E. SCHULTZ,
WILLIAM H. C. SMITH.