

No. 891,502.

PATENTED JUNE 23, 1908.

C. J. REYNOLDS.

SEAL.

APPLICATION FILED JULY 2, 1906.

Fig. 1.

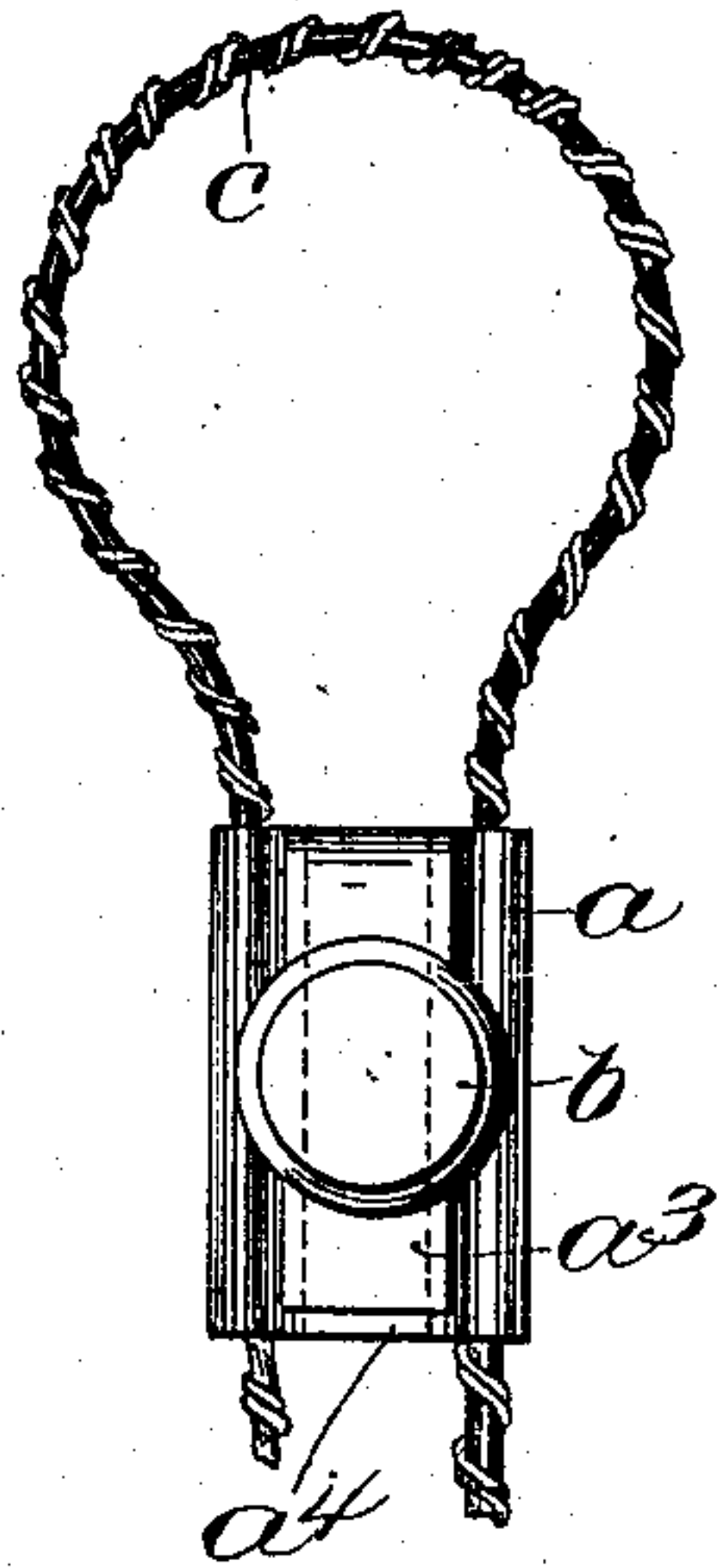


Fig. 4.

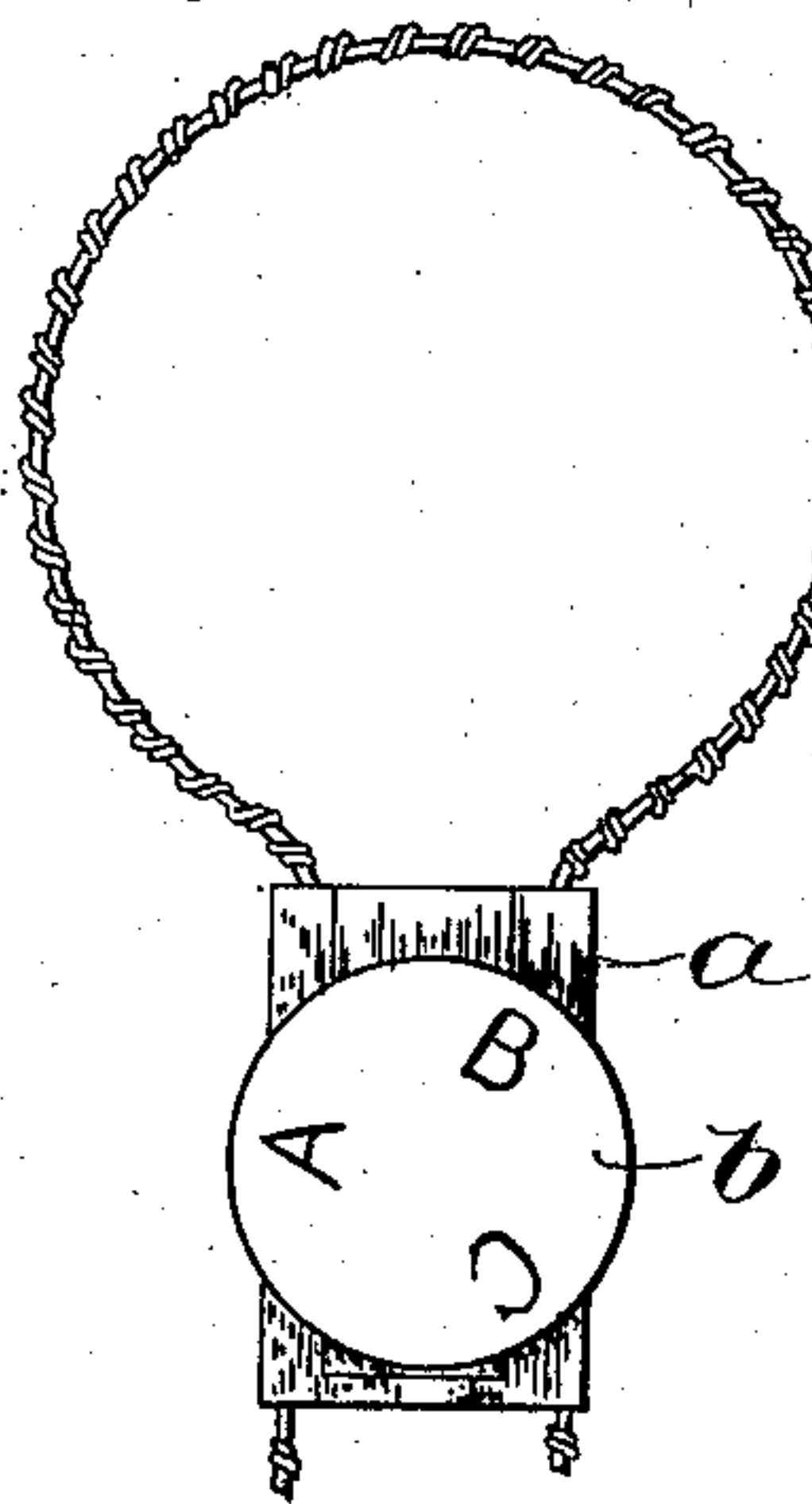


Fig. 5.

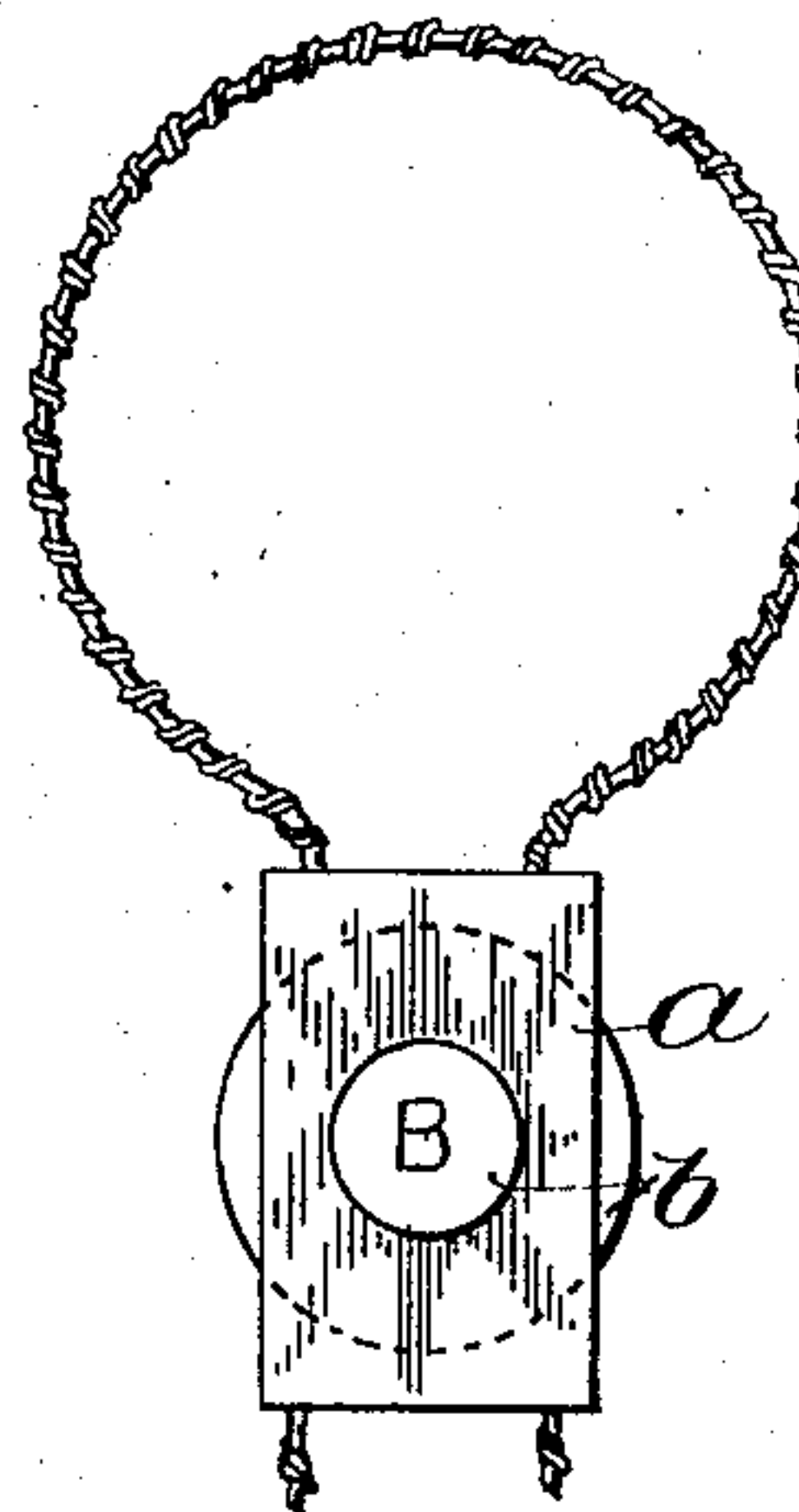


Fig. 2.

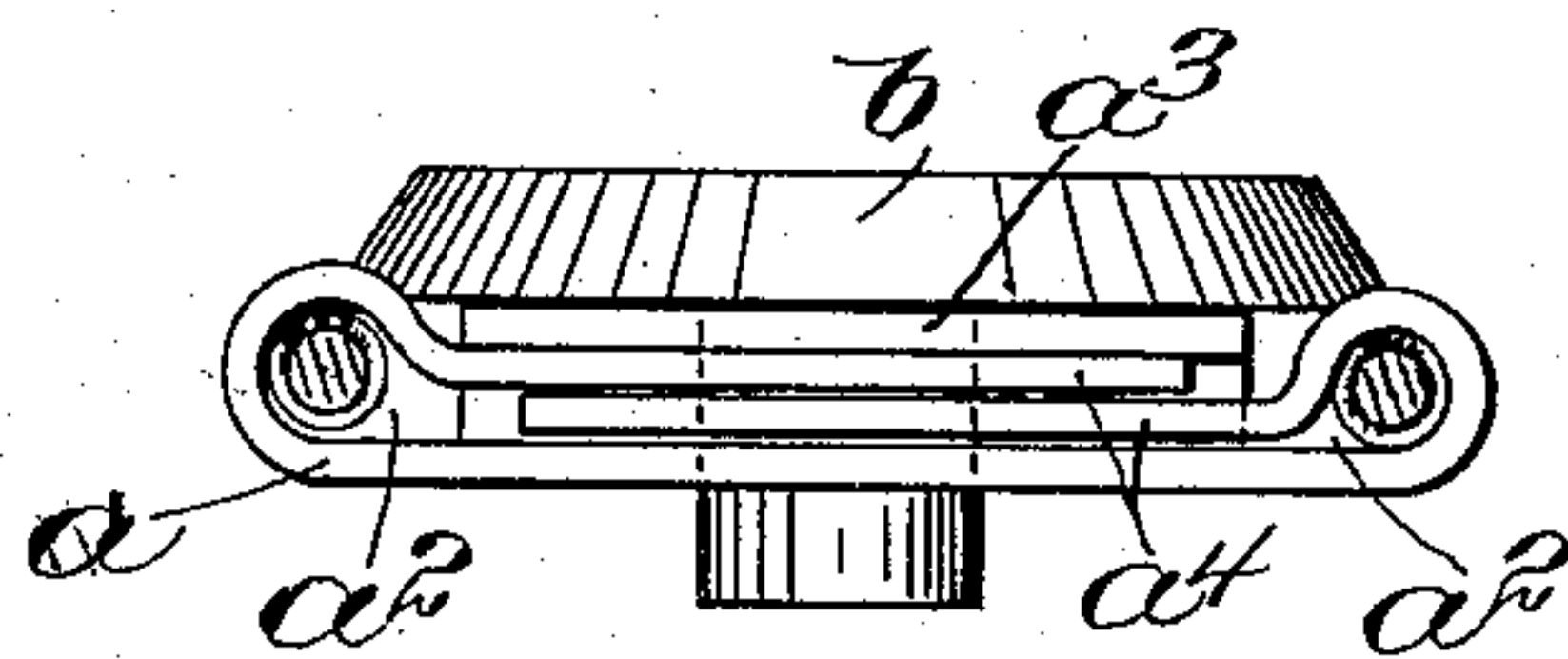
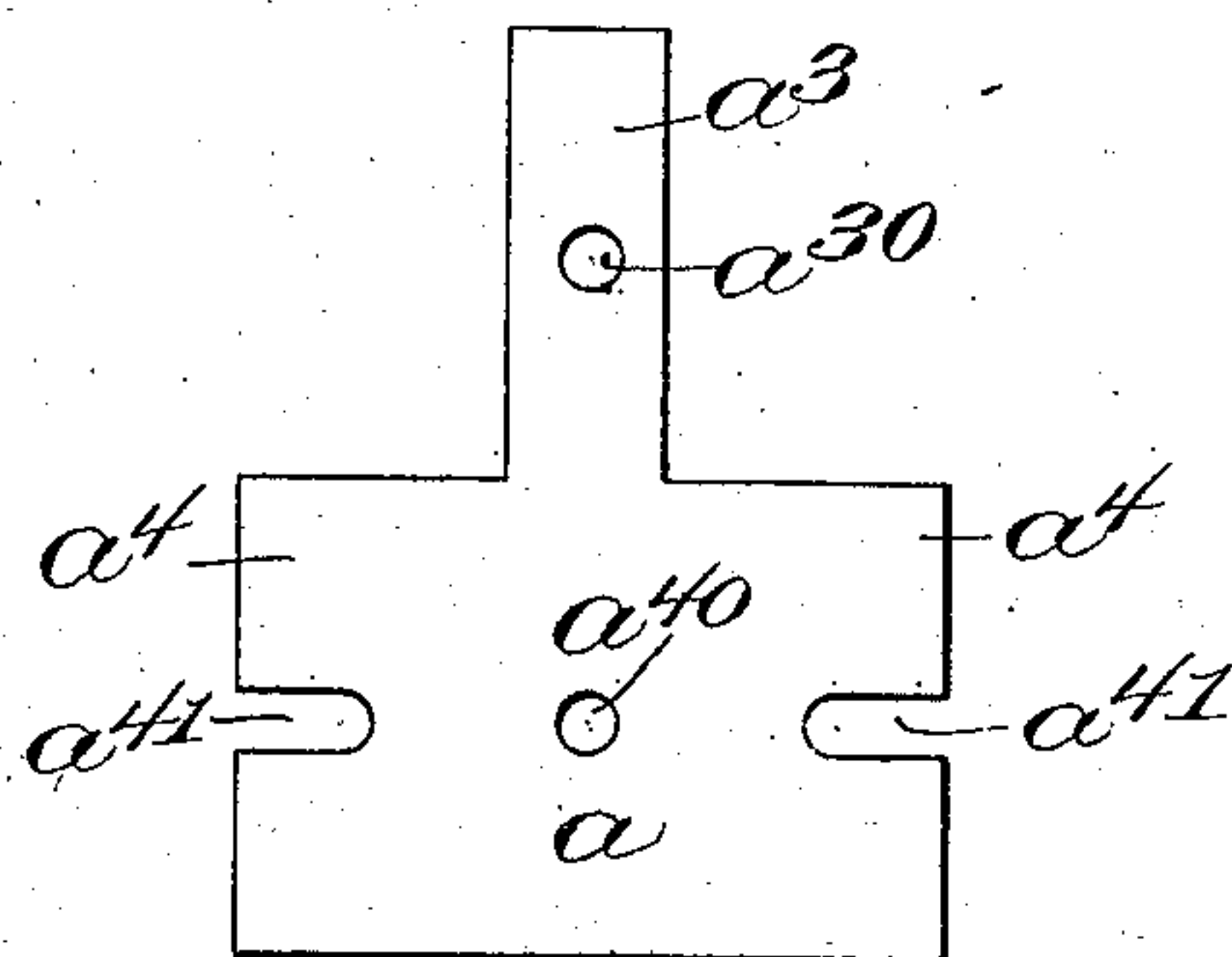


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES J. REYNOLDS, OF MELROSE, MASSACHUSETTS.

SEAL.

No. 891,502.

Specification of Letters Patent.

Patented June 23, 1908.

Application filed July 2, 1906. Serial No. 324,404.

To all whom it may concern:

Be it known that I, CHARLES J. REYNOLDS, a citizen of the United States, residing at Melrose, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Seals, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

The present invention relates to a seal of the kind commonly used to prevent tampering with packages, meters, &c., in which a loop of shackle wire has its ends embedded in a piece of soft metal, usually lead, which is squeezed on the ends of the wire and stamped with letters or the like, so that the loop cannot be opened without breaking the wire or destroying the seal. In cases, however, where the soft metal alone is used, it is possible, by skilful manipulation, to split the metal sufficiently to remove one end of the wire without destroying the lettering on either side, so that the wire can be removed and then replaced without noticeably affecting the appearance of the seal.

It is the purpose of the present invention to obtain a seal which cannot, by any expedient, be opened without destroying the lettered parts beyond the possibility of repair.

The seal embodying the invention consists of a portion made of sheet metal of sufficient hardness to prevent any cut portions from being subsequently united by pressure, this portion having recesses or shackle eyes for the ends of the shackle wire and being combined with a soft metal sealing portion which is capable of being crushed so as to bind the ends of the wire, and also to receive the impression which forms the characteristic of the seal.

Figure 1 is a plan view of a seal with the wire in place, and ready to receive the impression; Fig. 2 is an end elevation, on a larger scale; Fig. 3 is a plan view of the blank employed in making the hard metal portion of the seal; Fig. 4 is a plan view of one side of the seal after it has been pressed; and Fig. 5 is a similar view of the other side.

The hard metal portion *a*, which is composed of any suitable sheet metal such as ordinary tin, is formed with recesses or shackle eyes *a*² to receive the ends of the shackle wire *c*, and with a transverse opening to receive the soft metal portion *b* which is shown as a rivet or mushroom shaped piece of lead which can be crushed by means of a suitable

sealing press. The sheet metal portion is formed of a blank of the shape shown in Fig. 3, the said blank having the tongue *a*³ and wings *a*⁴, the tongue being provided with an opening *a*³⁰ which comes into alinement with the opening *a*⁴⁰ in the body of the blank, and also with the channels *a*⁴¹, so as to afford an opening completely through to receive the lead seal *b*. In forming the portion *a*, the wings *a*⁴ are bent inward so as to overlap each other, as best shown in Fig. 2, and the tongue *a*³ is then folded over the top of the wings. In bending over the wings, they are shaped so as to form the pockets *a*² for the wire, and the sheet metal portion itself is sufficiently soft and flexible to bind the wire firmly when the entire seal is crushed in the press.

The lead portion *b* is of sufficient size to overlap all the adjacent edges of the sheet metal portion, so that it is impossible to split the lead portion for the purpose of removing one end of the wire without completely destroying said portion so that it would be beyond the possibility of repair, because even after the lead portion had been split, it would be necessary to loosen the sheet metal part in order to release the wire. It is obvious that by making the sheet metal portion with the overlapping parts, and making the lead portion of sufficient size to cover the several adjoining parts, it is practically impossible to unfold the sheet metal portion without destroying the lead, or even to loosen said sheet metal portion sufficiently to remove the wire without injuring the lead seal to such an extent that the tampering could not fail to be observed. Figs. 4 and 5 indicate the manner in which the lead is caused to overlap and bind the sheet metal portion.

It will be seen from the foregoing description that a seal which is absolutely non-repairable if broken can be made without any substantial additional expense, and that the seal is adapted to be applied in the same way as the seals now commonly employed, without the use of any other appliance than the sealing press which is now used.

Claims.

1. A seal comprising a one-piece sheet metal body having parts bent over to form straight pockets to receive the ends of a wire, said body and said parts having openings between the pockets; and a sealing member of soft metal having a portion adapted to be extended through said openings and a portion

overlying the bent over portions of the body, substantially as described.

2. A seal comprising a one-piece sheet metal body shaped to form pockets to receive 5 the ends of a wire, and provided with overlapping portions, said body and overlapping portions being provided with openings between said pockets; and a mushroom shaped sealing member of soft metal capable of being 10 pressed and crushed, and having a portion adapted to be extended through said openings and a portion overlying said pockets to bind the ends of the wire therein, substantially as described.

3. A seal comprising a one-piece sheet metal body formed of a blank having side wings and a tongue, the wings being bent forward to overlap, and shaped to form pockets at the bent portions, and the tongue being 20 bent over to overlie the wings; openings through the overlapping portions and the body portion, and a sealing member having a stem to project through said openings, and a head of sufficient area to cover and project 25 beyond the sides of the body portion when pressed into position.

4. A seal comprising a sheet-metal mem-

ber having its end margins folded back upon it and having shackle-eyes at its lateral edges in its folded condition, said member having 30 an intermediate perforation and said backfolded margins having perforations, and a soft-metal connecting member having a web passing through said perforations and having heads lying on opposite sides of the sheet- 35 metal between said eyes.

5. A seal comprising a folded sheet-metal member with the end margins overlapping each other upon the intermediate section of the member and with longitudinal eyes at 40 the lateral edges of said folded member, said intermediate and end-marginal sections having registering perforations, and a soft-metal connecting member having a shank extending through said perforations and hav- 45 ing heads between which said intermediate and marginal sections are confined.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES J. REYNOLDS.

Witnesses:

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