

(No Model.)

J. AITCHISON & T. BRADLEY.
CONSTRUCTION OF METALLIC VOLUTE COILS.

No. 501,815.

Patented July 18, 1893.

FIG. 1.

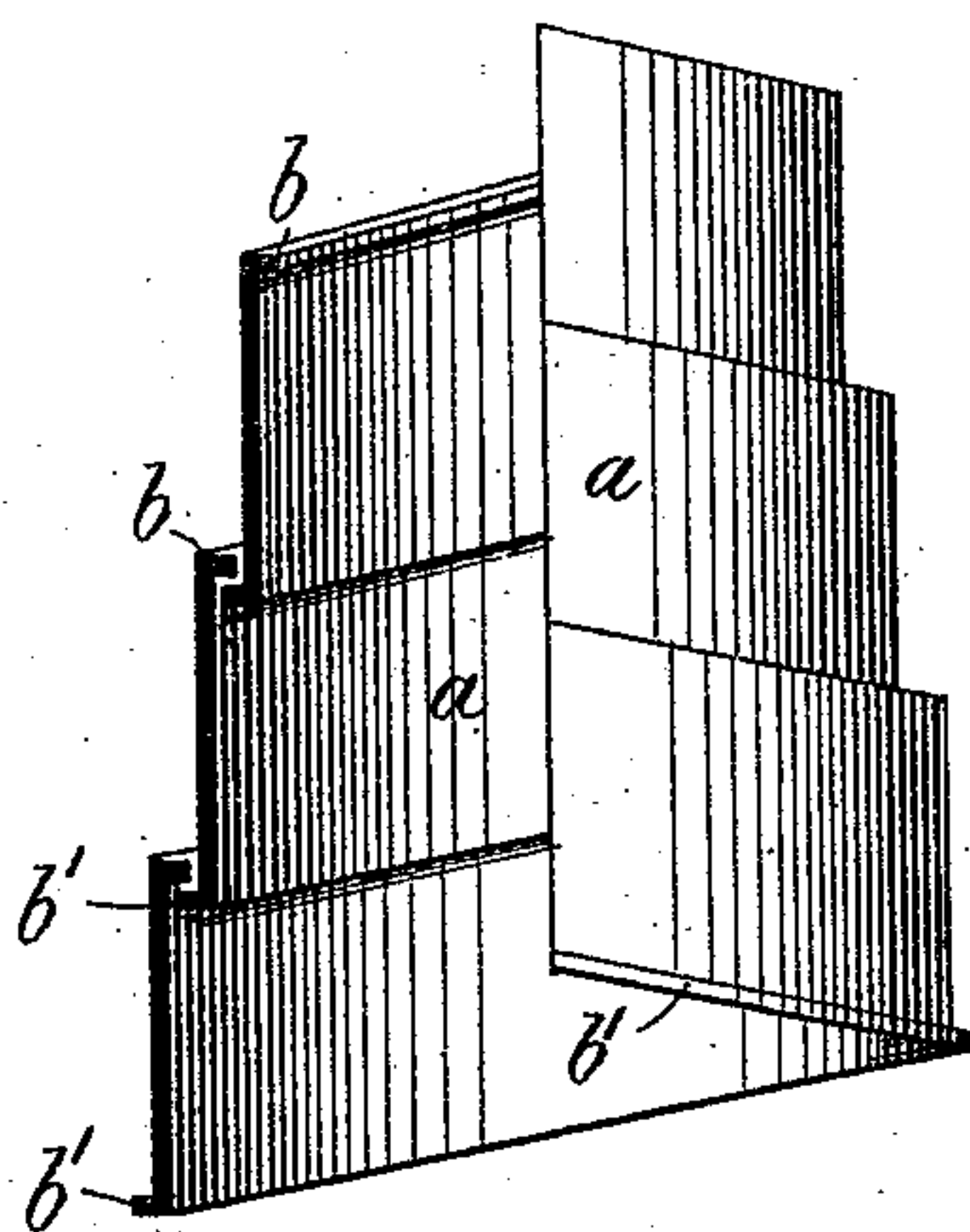


FIG. 3.

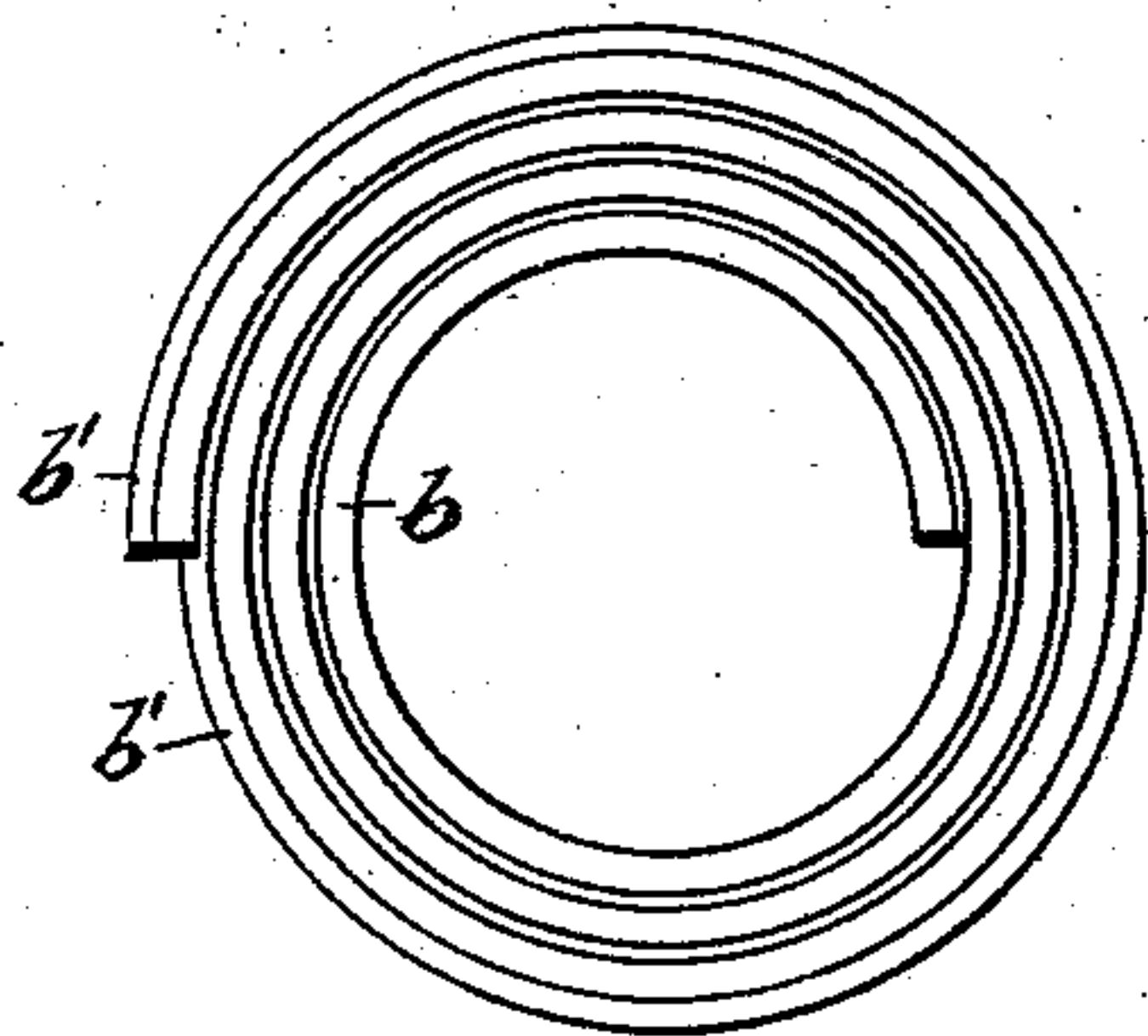
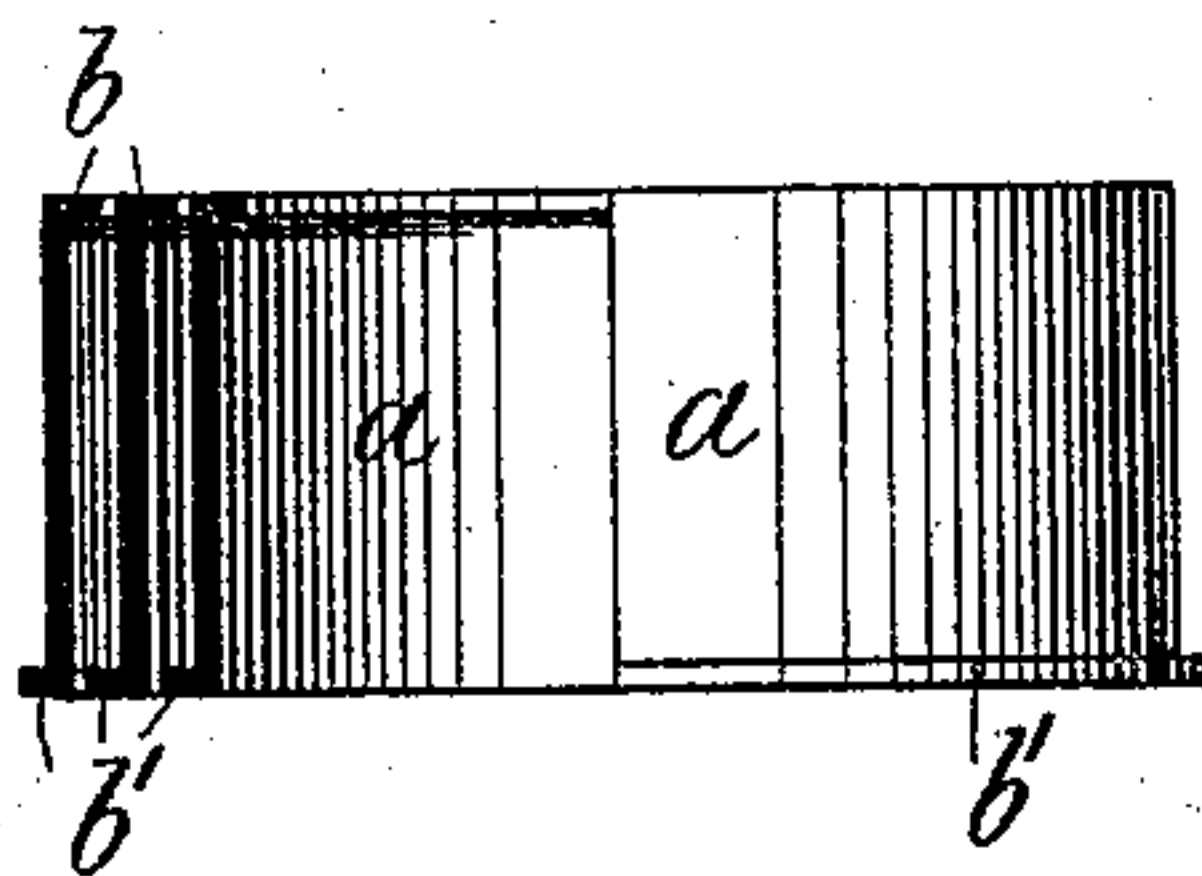


FIG. 2.



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UNITED STATES PATENT OFFICE.

JAMES AITCHISON AND THOMAS BRADLEY, OF LONDON, ENGLAND.

CONSTRUCTION OF METALLIC VOLUTE COILS.

SPECIFICATION forming part of Letters Patent No. 501,815, dated July 18, 1893.

Application filed March 2, 1893. Serial No. 464,408. (No model.)

To all whom it may concern:

Be it known that we, JAMES AITCHISON, oculist optician, residing at 47 Fleet Street, London, and THOMAS BRADLEY, engineer, residing at 90 Gibbon Road, Nunhead, London, in the county of Surrey, England, both subjects of the Queen of Great Britain, have invented a certain new and useful Improvement in the Construction of Metallic Volute Coils, of which the following is a specification.

Our invention relates to the construction of metallic volute coils, applicable to the formation of monocular and binocular opera, field, and marine glasses, telescopes, stereoscopes, and the like, and to handles for the same; and the object of our invention is to manufacture volute metallic coils in such a manner that the several coils are restricted in the extent of their motion, longitudinally, and prevented from separating. And in order that our said invention may be particularly described and ascertained, reference is hereby made to the accompanying drawings, in which similar letters of reference indicate corresponding parts.

Figure 1 is an elevation, partly in section, showing a volute coil extended. Fig. 2 is an elevation, also partly in section, showing the same coil closed; and Fig. 3 is a plan view of the coil.

The improvement consists in rolling the

edges of the metal forming the coil, so as to produce an extension of the same, and thus form lips on each edge, in opposite directions, whereby each volution of the coil is prevented from separating from the adjacent volutions, and the extension of the complete coil is limited to the total sum of the widths of the several volutions minus the lips.

In the drawings *a* is the metallic coil.

b is the rolled internal lip, and *b'* is the external lip.

The positions of the lips *b* and *b'* prevent the separation of the volutions by their contact, as shown in Fig. 1; and their position does not interfere with the compact closing of the same, as shown in Fig. 2.

We claim—

In collapsible opera glass and other barrels composed of a volute coil of metal, the combination therewith of projecting edges or lips formed thereon in contrary directions, so as to engage, and prevent the separation of the volutions, substantially as described.

Dated this 10th day of February, 1893.

JAMES AITCHISON.
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