

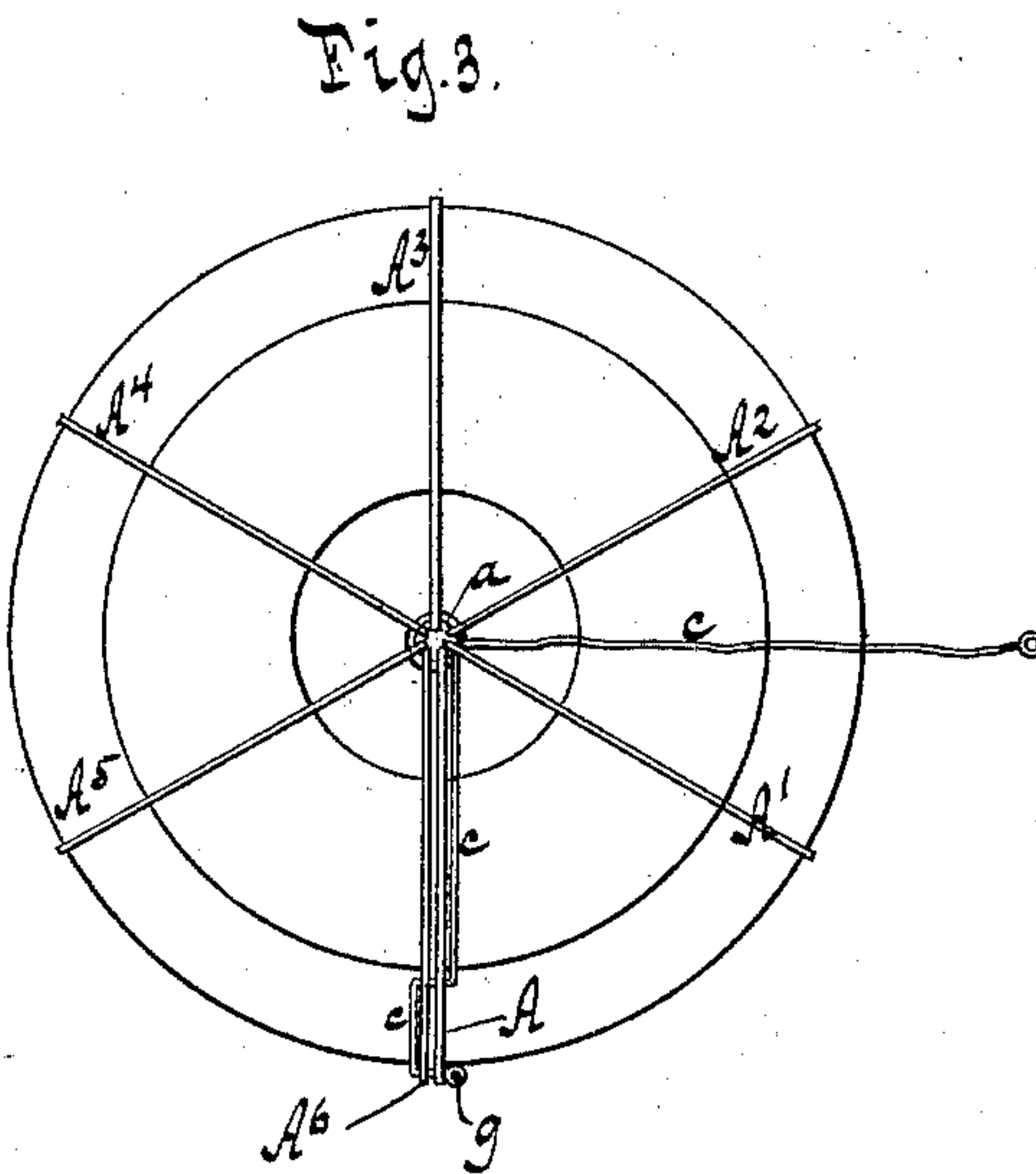
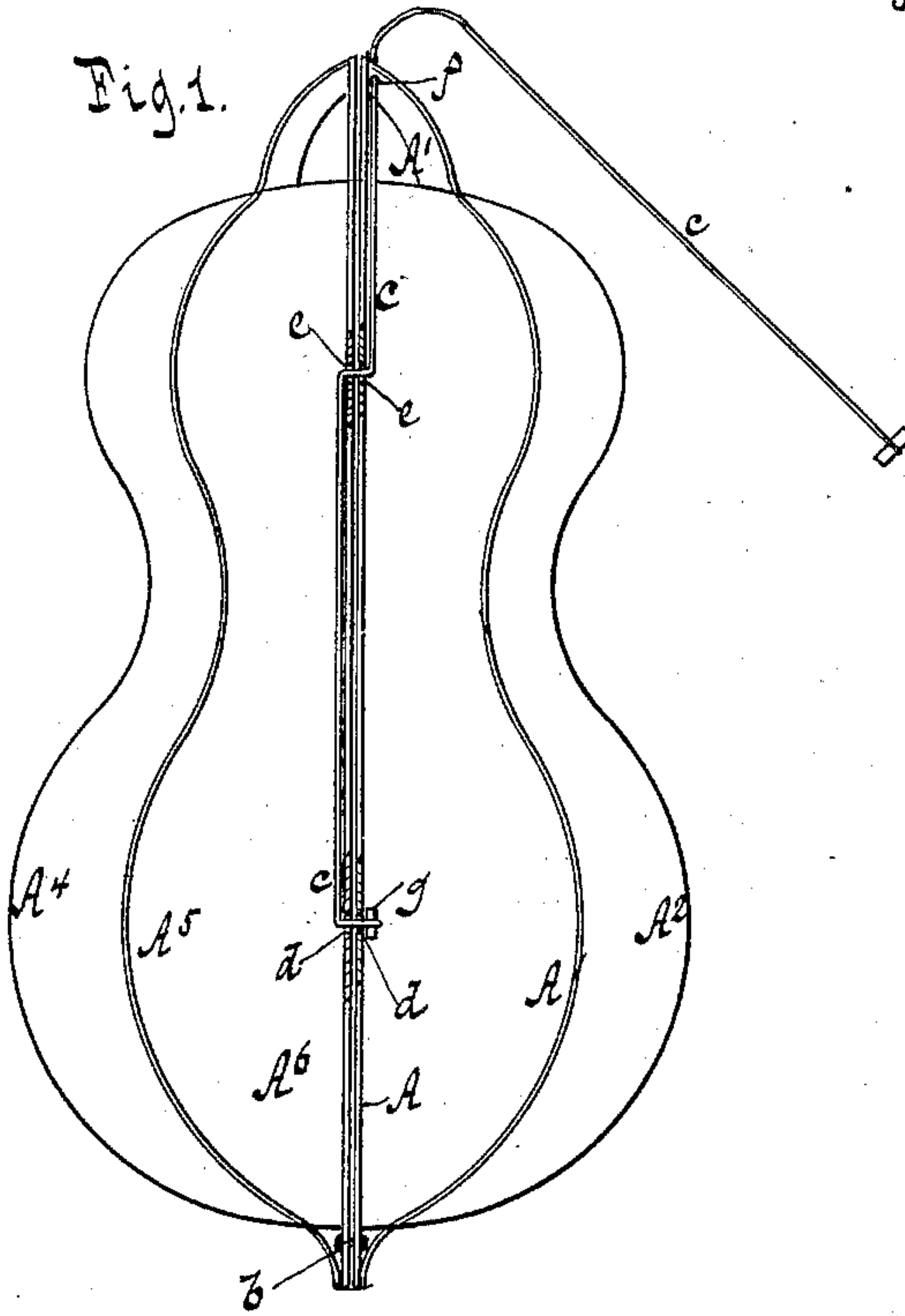
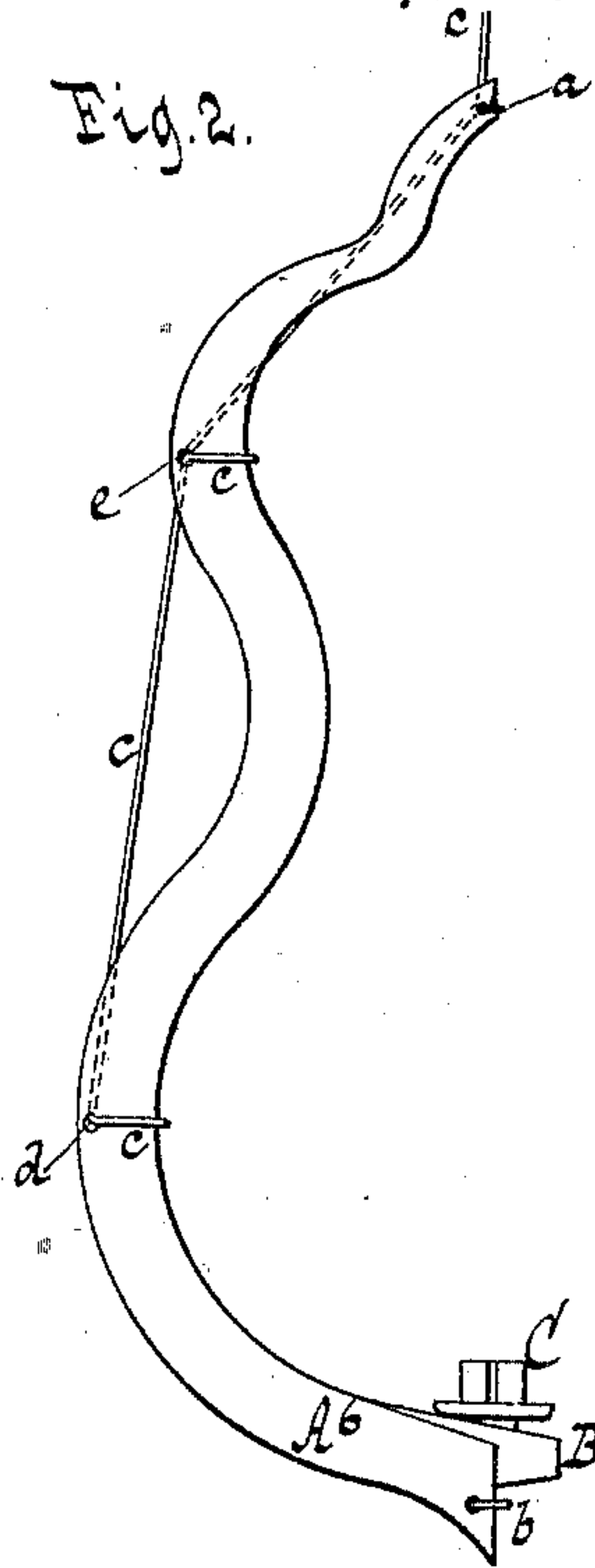
(No Model.)

J. E. GRUMBACH.

PAPER LANTERN.

No. 277,712.

Patented May 15, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN E. GRUMBACH, OF JERSEY CITY, NEW JERSEY.

PAPER LANTERN.

SPECIFICATION forming part of Letters Patent No. 277,712, dated May 15, 1883.

Application filed February 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. GRUMBACH, a citizen of the United States, residing at Jersey City Heights, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Paper Lanterns, of which the following is a specification.

This invention relates to an improvement in that class of paper lanterns which are constructed of a series of curved ribs hinged together at their upper and lower ends, and of corrugated paper sections inserted between the ribs.

My invention consists in the combination, with the hinged curved ribs, which serve to support the corrugated sections, of a shirring-string, which passes through the two end ribs and through one of the adjoining ribs, so that by pulling said string the lantern is closed up, and when said lantern is suspended from the shirring-string it is kept closed by its own weight, while at the same time easy access can be had to the interior of the lantern.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents an elevation of my lantern when the same is folded and closed, ready for use. Fig. 2 is a similar view of the lantern when folded up. Fig. 3 is a plan or top view of the same when unfolded.

Similar letters indicate corresponding parts.

In the drawings, the letters A A' A² A³ A⁴ A⁵ A⁶ designate the ribs of my lantern. These ribs are cut out of pasteboard or other equivalent material, and they are curved, as shown in Fig. 2, or made in any form suitable for the purpose. Said ribs are connected at their upper ends by a cord or wire, *a*, and at their bottom ends by a cord or wire, *b*, so that the same can be folded to the position shown in Fig. 2, or unfolded, as shown in Figs. 1 and 3. The spaces between the ribs are occupied by sections of corrugated paper or equivalent material commonly used in paper lanterns of this class. These corrugated sections, however, form no part of my present invention, and I have not illustrated them in the drawings. To the lower end of one of the ribs is secured an extension, B, which sup-

ports the candle-holder C, as commonly practiced in paper lanterns of this class. When the ribs are unfolded or brought into the position shown in Figs. 1 and 3, the ribs A and A⁶ are brought close together, and when they are fastened together in this position the lantern is closed.

The usual method of securing the ribs A and A⁶ together is by securing in each of said ribs two or more short cords or tapes, so that by tying the cords in one rib together with the corresponding cords in the adjacent rib the lantern is retained in a closed position. A separate cord or wire is then used for suspending the lantern. This method of fastening the lantern in its closed position requires more or less time, and if it is desired to open the lantern for the purpose of adjusting the candle the cords which fasten the ribs A A⁶ together have to be untied, which again requires so much time that in some cases the safety of the lantern is endangered. These disadvantages are overcome by my invention.

For the purpose of closing the lantern I employ a string, *c*, which is passed through holes *d* in the ribs A A⁶, thence up to and through holes *e* in the same ribs, and thence through a hole, *f*, in the rib A', near its upper end, the lower end of said string being provided with a stop, *g*, so that it cannot be drawn through the holes *d*. When the ribs A and A⁶ are brought close together, as shown in Figs. 1 and 3, and the string *c* is drawn upward, said ribs are firmly retained in their closed position, and if the lantern is suspended from the string *c* it is retained in its unfolded position by its own weight. In order to open the lantern, so as to get access to its interior, it is only necessary to lift up the lantern from below, so as to relieve the shirring-string from all strain, and then the ribs A A⁶ can be easily moved apart. This operation can be effected almost instantaneously, so that if the burning candle is thrown in a position which endangers the safety of the lantern it can be adjusted in time to prevent actual damage.

What I claim as new, and desire to secure by Letters Patent, is—

In a paper lantern, a series of ribs loosely connected at their ends, whereby they are capable of folding or swinging compactly together, combined with a shirring-string passing through holes of two adjacent ribs, and through the upper end of another rib which is adjacent to one of the former, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

JOHN E. GRUMBACH. [L. S.]

Witnesses:

W. HAUFF,

D. VAN SANTVOORD.