

(No Model.)

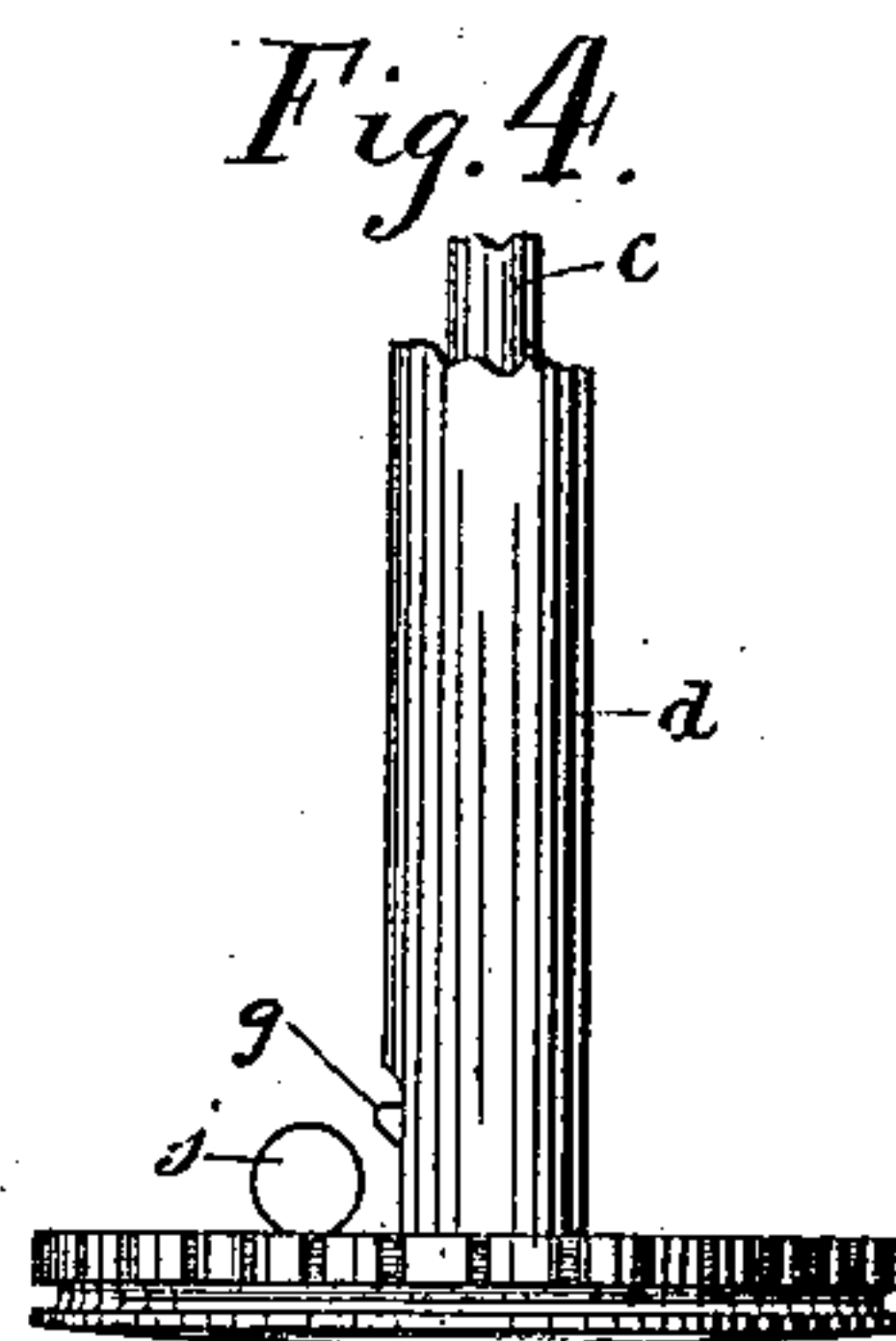
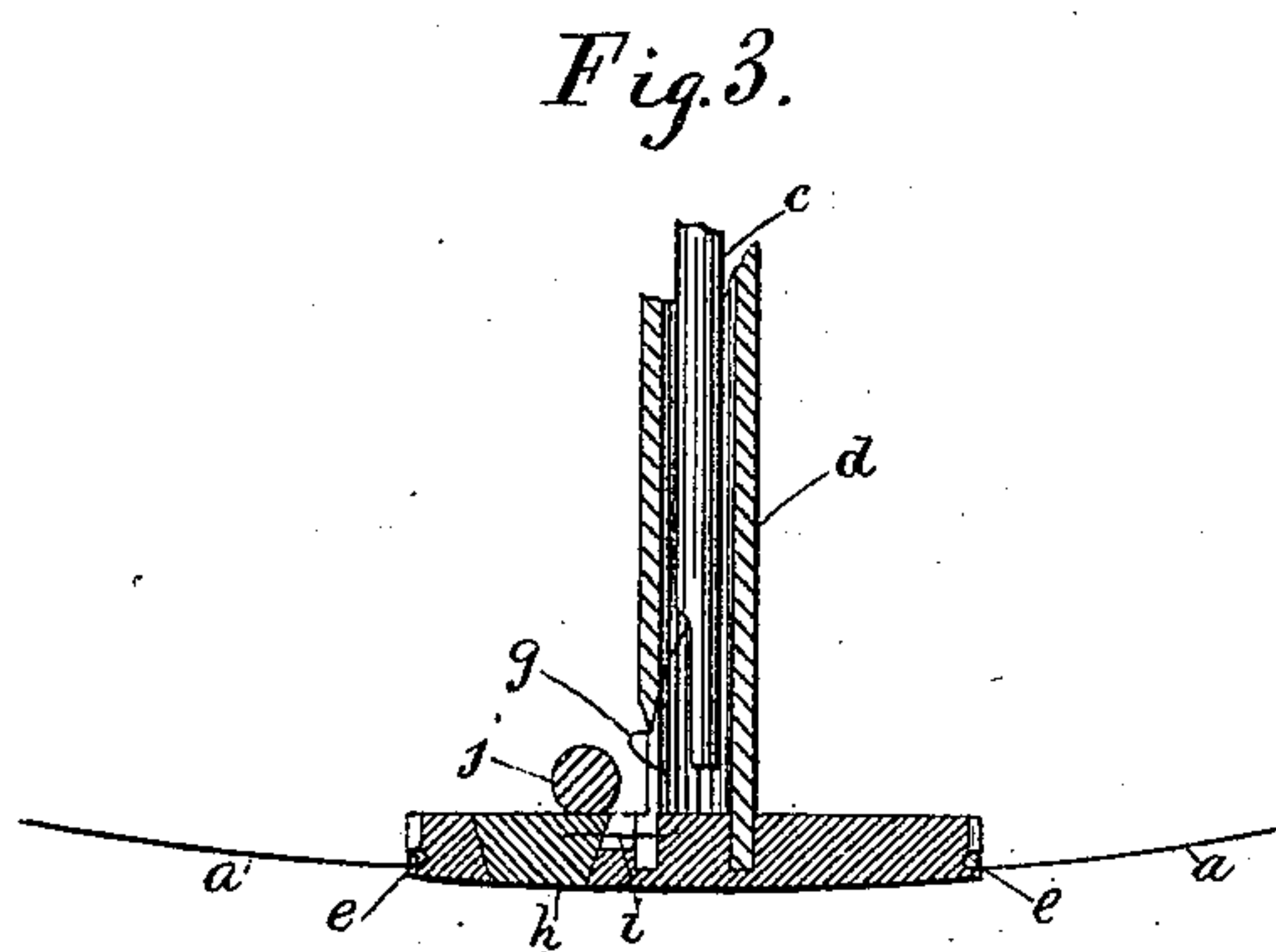
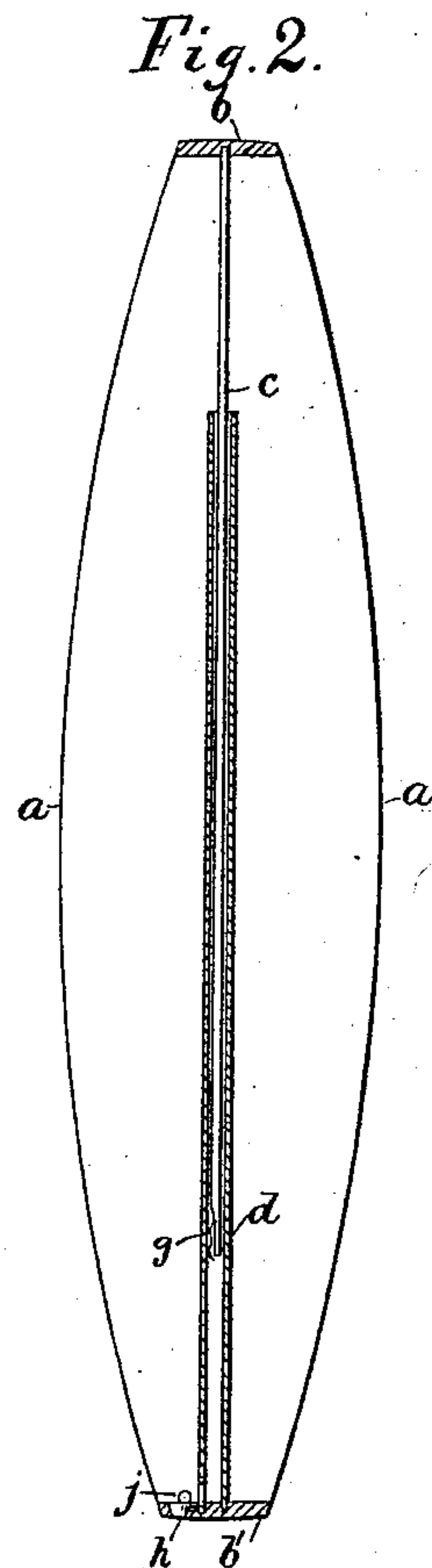
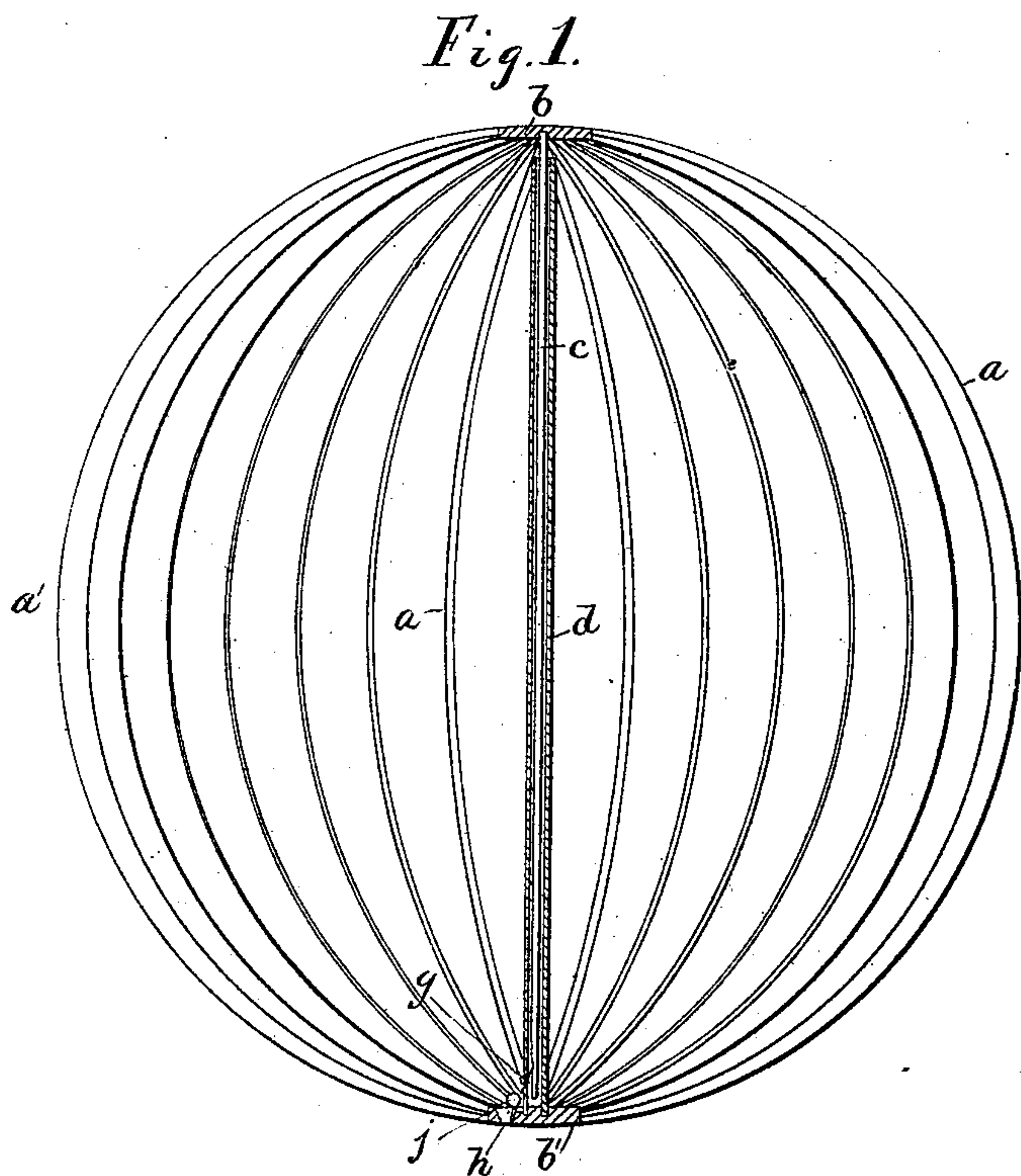
2 Sheets—Sheet 1.

L. D. WASHINGTON.

FOLDING GLOBE.

No. 316,087.

Patented Apr. 21, 1885.



Witnesses:

E. D. Smith

[Signature]

Inventor:

L. D. Washington,

by *[Signature]* atty.

(No Model.)

L. D. WASHINGTON.

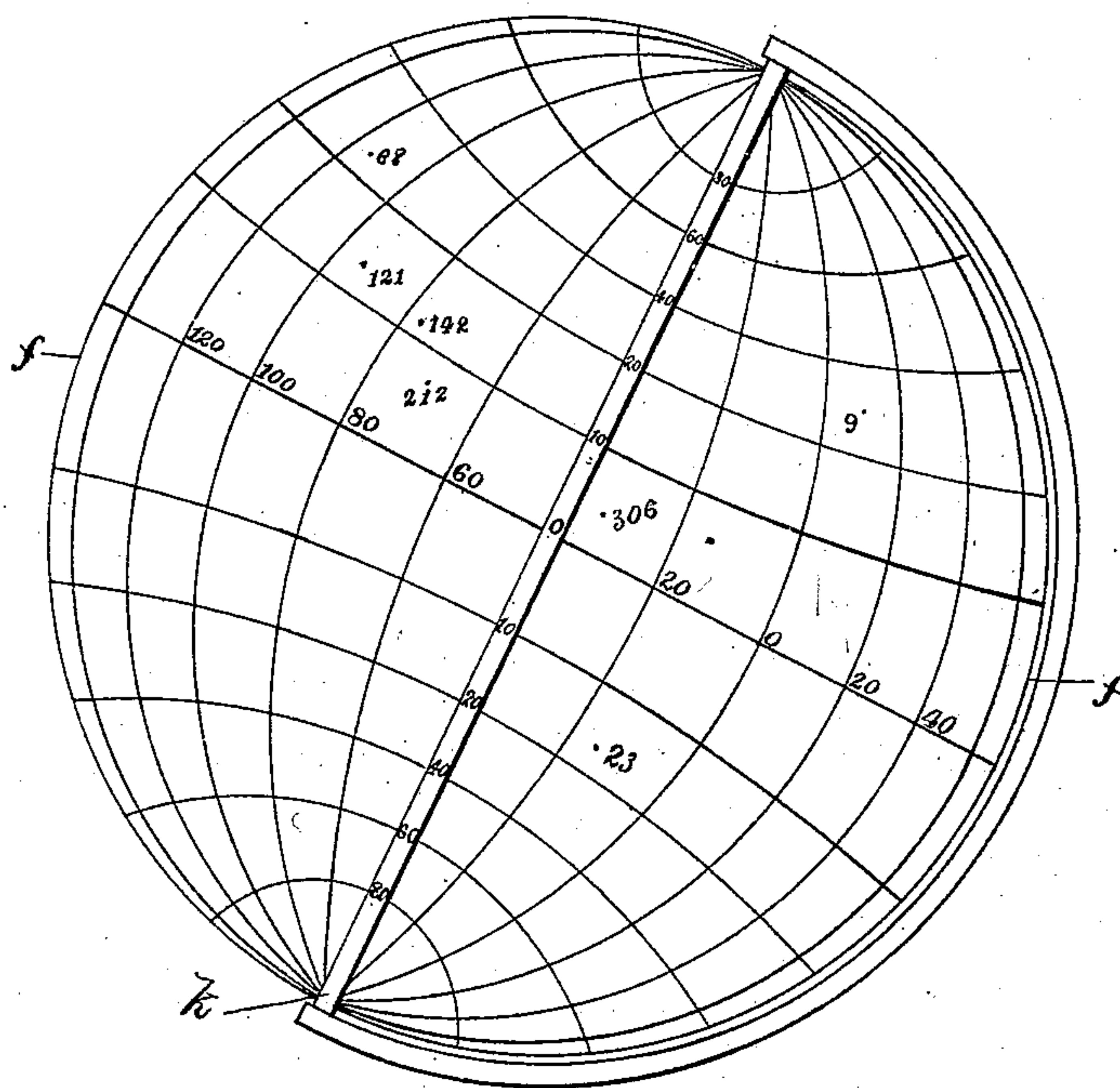
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Fig. 5.



Witnesses:

E. D. Smith

V. A. Connors

Inventor:

L. D. Washington,
by Henry Calver, Atty.

UNITED STATES PATENT OFFICE.

LORENZO D. WASHINGTON, OF KNOXVILLE, TENNESSEE.

FOLDING GLOBE.

SPECIFICATION forming part of Letters Patent No. 316,087, dated April 21, 1885.

Application filed July 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, LORENZO D. WASHINGTON, a citizen of the United States, residing at Knoxville, in the county of Knox and State of Tennessee, have invented certain new and useful Improvements in Globes, of which the following is a specification.

The object of my invention is to cheapen the manufacture of large geographical globes and to facilitate the handling of the same in transportation, and also to provide globes uniting lightness with durability, strength, and convenience. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of my globe opened, and Fig. 2 a similar view of the same closed. Fig. 3 is an enlarged detail view showing the mechanism for opening and closing the globe. Fig. 4 is an enlarged elevation of one of the heads and connected parts. Fig. 5 is an elevation of my globe opened and mounted.

Similar letters refer to similar parts in all the figures.

The frame-work of my globe consists of flexible spring ribs *a*, hinged to heads or disks *b* and *b'*, the former disk being attached to a rod or shaft, *c*, sliding easily within a hollow shaft or sleeve, *d*, carrying the other head or disk, *b'*, said rod and sleeve forming a central shaft for the globe. The ribs *a* are preferably attached to the disks *b* and *b'* by means of wires *e*, lying in grooves in the said disks, as shown in Fig. 3. The frame-work of the globe supports a flexible air-tight covering, *f*. To hold the globe open a spring-catch, *g*, is attached to the rod *c*, said catch engaging a recess in the lower end of the sleeve *d*, as shown in Fig. 3, when the globe is open.

The disk *b'* is provided with a valve, *h*, held to its seat by a spring-hinge, *i*, said valve having a projection, *j*, adapted to engage and release the catch *g* when the valve is raised from its seat. Thus, when the globe is to be folded, the valve will be pressed inward by the said projection, thus allowing the air to escape from the globe, and at the same time releasing the catch so that the rod *c* may be slid outward

from the sleeve *d* by the elastic force of the ribs *a*, to permit the globe to be folded as in Fig. 2.

The globe may be opened simply by pressing the disks *b* and *b'* toward each other, and the outside pressure of the atmosphere will then force the valve inward to fill the globe with air.

If necessary to complete the inflation of the globe or the pressure of the air therein, an additional quantity of air may be forced through the valve, and the latter then closes, and is held to its seat by the pressure of the air within the globe and by its spring-hinge.

In order to make my globe a complete map of reference, and at the same time to avoid obscuring it too much with printed matter, I prefer to print only the names of the most important places or objects on the surface of the globe, and to number the remainder according to their positions in the sections formed by the crossing of the parallels of latitude and the meridians, commencing at some point on the globe, as at the place farthest to the north and west, and numbering thence toward the south and east until all are numbered. A few examples of these numbers placed are indicated in Fig. 5. A stationary scale, as *k*, having numbers corresponding to the parallels of latitude, and an independent index (not shown) having the names and numbers of the places and their latitude and longitude, will be provided for use with globes having these numbered places. Any one of these places can easily be found by turning the globe until the degrees on the scale and those on the equator correspond to the latitude and longitude of the place, as will be indicated by the index, when the place will at once be found by its number.

I am aware that prior to my invention folding globes have been made of cloth supported by an internal frame-work, and I do not therefore claim such a combination, broadly; but

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

1. In a folding globe, the combination, with a central extensible shaft having heads or disks provided with grooves, one of the said heads having an inwardly-opening spring-pressed

valve, of a series of elastic ribs hinged to wires in the said grooves, and a flexible air-tight covering, substantially as set forth.

2. In a folding globe, the combination, with
5 the flexible ribs *a*, of a central shaft having heads or disks *b* and *b'*, to which said ribs are hinged, said shaft consisting of a rod, *c*, having a spring catch or lock, *g*, and a sleeve, *d*,
10 having a recess for the engagement of said catch, substantially as set forth.

3. In a folding globe, the combination, with

a central shaft formed in two sections, one of which is adapted to slide on the other, of a spring-catch attached to one of said sections and a valve attached to the other, said valve 15 having a projection for releasing said catch when the valve is lifted from its seat, substantially as set forth.

LORENZO D. WASHINGTON.

Witnesses:

J. H. GRIFFITS,

J. H. KINEBRAUGH.