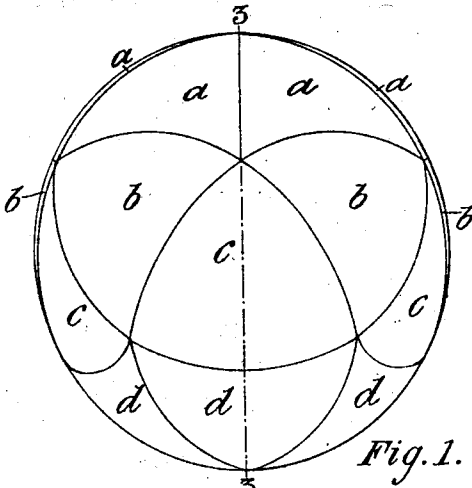
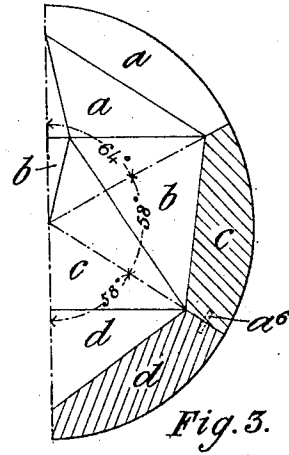
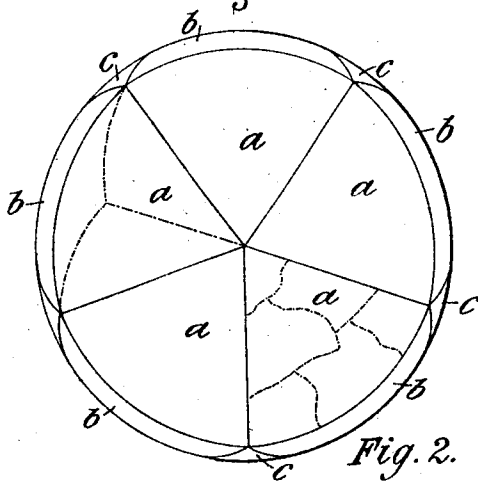
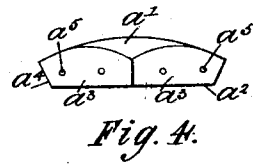
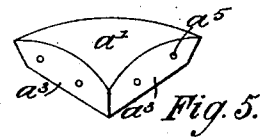
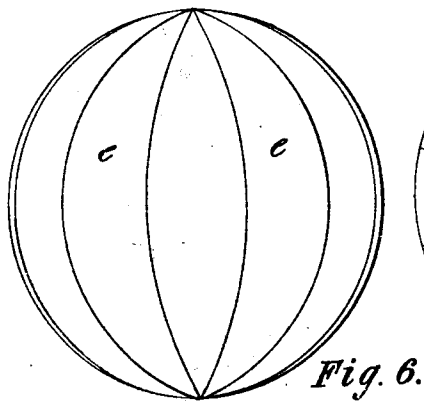
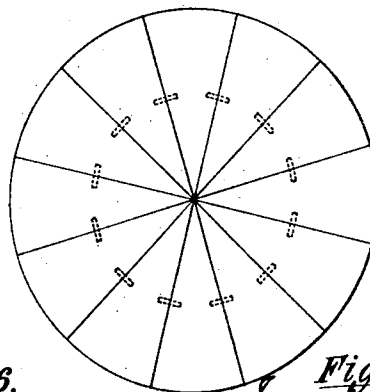


W. J. CORBETT.
SPHERICAL GLOBE.
APPLICATION FILED JULY 13, 1921.

1,409,082.

Patented Mar. 7, 1922.



Inventor
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By F. C. Lomas, Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM JOHN CORBETT, OF WOLVERHAMPTON, ENGLAND.

SPHERICAL GLOBE.

1,409,082.

Specification of Letters Patent.

Patented Mar. 7, 1922.

Application filed July 13, 1921. Serial No. 484,390.

(GRANTED UNDER THE PROVISIONS OF THE ACT OF MARCH 3, 1921, 41 STAT. L., 1313.)

To all whom it may concern:

Be it known that I, WILLIAM JOHN CORBETT, a subject of the King of Great Britain, and residing at Wolverhampton, in the county of Stafford, England, of no occupation, have invented certain new and useful Improvements in Spherical Globes, (for which I have filed an application in Great Britain Feb. 19, 1920, No. 5,102,) of which the following is a specification.

This invention relates more especially to geographical or terrestrial globes, but is applicable to other globes which are spherical, or substantially so, and broadly stated consists in dividing the globe at its surface into a number of pieces each having a face forming a part of the sphere and bounded by edges which lie each in a plane which intersects the centre of the sphere or substantially so, and so shaping such pieces that they may be built up after the manner of a puzzle to form a globe. Means are provided for securing the pieces one to another as they are put in position.

According to one form of the invention each piece may be so bounded completely by a part of the spherical surface and by a pair of planes which both include a common axis of the globe. The globe, when built up from such pieces, is divided into sectors after the manner of the quarters of an orange. Each sector may be divided up into a number of smaller pieces of any desired shape.

According to a preferred construction, however, the globe is truly spherical and is built up by triangular pieces, preferably 20 in number, and all of the same size, each triangular piece being bounded at its sides by edges of the same dimensions, and each lying in a plane which passes through the centre of the sphere. Each triangular piece may be divided up into other triangular pieces, or into pieces having other shapes.

The outer surface of the globe when built up may be of plain wood, or other material, but preferably it is arranged to represent a sectional map of the world or of the heavens, or it may be covered with one or more pictures or devices.

Each triangular piece may extend to the centre of the globe and its side faces which lie in planes which intersect the centre of the sphere may be marked such as with the

various strata. For the sake of lightness, however, the inner part of each piece may be cut away.

Convenient modifications of the invention are illustrated in the drawings herewith. Of these drawings:—

Figure 1 is a view in elevation of a sphere made up of twenty equilateral spherical triangles, the side faces of which lie in planes which intersect the centre of the sphere.

Figure 2 is a plan view of the sphere shown in Figure 1.

Figure 3 is a half sectional view of the sphere, shown in Figure 1, the section being taken on the line 3, 3, of that figure.

Figure 4 is an edge view of one of the triangular sections of the sphere.

Figure 5 is a perspective view thereof.

Figure 6 is a view showing a sphere divided into sectors after the manner of the quarters of an orange; and

Figure 7 is a plan view of the sphere shown in Figure 6.

Referring first to Figures 1 to 5 inclusive, the sphere is made up of twenty equilateral spherical triangles, of which five designated with the letter *a* are arranged about the upper or north pole of the sphere. Laid with their bases against the bases of the triangles *a* are five other triangles *b* of precisely similar dimensions, and intermediate each triangle *b* is placed a triangle *c*. The five remaining triangles *d* have their apices coincident with the south pole of the sphere, and their bases lying against the bases of the triangles *c*.

Each triangle consists of a spherical portion *a*¹ (see Figures 4 and 5) a flat inner surface *a*² and three side faces *a*³ and these latter are arranged to lie in planes which intersect the centre of the sphere, consequently they are each at right angles to the spherical surface, this being the only condition that needs to be fulfilled, but it has been ascertained that the angle which a corner edge *a*⁴ makes with the opposite side is approximately 58°, while the angle which such corner edge makes with either of the other corner edges is approximately 64°. These angles are indicated in Figure 3.

As will be readily understood the thickness of each triangle may be varied as desired, provided it is sufficient to allow of a triangle being formed which is one-twentieth

of the superficial area of the sphere. It will be understood that the maximum thickness of each triangle is half the diameter of the sphere, in which case in lieu of each triangle having a flat face a^2 it is in the form of a solid triangle with a spherical base.

In order to allow of the sphere being built up from the triangular sections, each face of each section has two holes a^3 formed therein, each adapted to receive one end of a peg a^4 .

Referring now to Figures 6 and 7, the globe is spherical and is divided simply into a number of sections c which are put together after the manner of the quarters of an orange, and held in position in relation to each other by holes and pegs similarly as described in connection with Figures 1 to 5.

In both modifications, as will be readily understood, the last sector or the last triangle, or the last two triangles can be secured in place with sufficient hold by the insertion of pegs which project from their respective surfaces only by a very slight amount, thus allowing the last sector or the last triangles to be sprung into place and readily removed, such as by prising them up with the blade of a penknife. As will be readily understood the means by which the last piece could be secured may be varied considerably there being plenty of known devices for effecting a junction of this character such for instance as the well known pivoted hook and pin fastener, or tongues secured to one part and adapted to be bent over the other part.

In either of the modifications above referred to, the outer surface of the sphere may be covered with a map of the world or of the heavens or any other device such as a picture.

It will of course be clear that the triangles

or sectors may each be divided up into any number of pieces with suitable means for securing them together examples of such divisions being indicated in broken lines in Figure 2.

Having fully described my invention what I claim and desire to secure by Letters Patent is:—

1. A globe of substantially spherical form divided at its surface into a number of equilateral triangular pieces each piece having a spherical or substantially spherical outer surface and lateral edges which lie in planes which intersect the centre of the sphere.

2. A globe of substantially spherical form divided at its surface into twenty equilateral triangles each having an outer surface forming part of the spherical surface and lateral edges lying in planes which pass through the centre of the sphere.

3. A globe of substantially spherical form divided at its surface into twenty equilateral triangles each having an outer surface forming part of the spherical surface of the globe and bounded by surfaces which lie each in a plane which intersects the centre of the sphere.

4. A globe of substantially spherical form divided at its surface into a number of pieces each bounded by three surfaces of which one forms part of the surface of the globe and the other two of which lie in planes which both include a common axis of the globe the parts being built up to form a globe after the manner of the quarters of an orange.

In witness whereof I have hereunto signed my name this 15th day of June, 1921.

WILLIAM JOHN CORBETT.