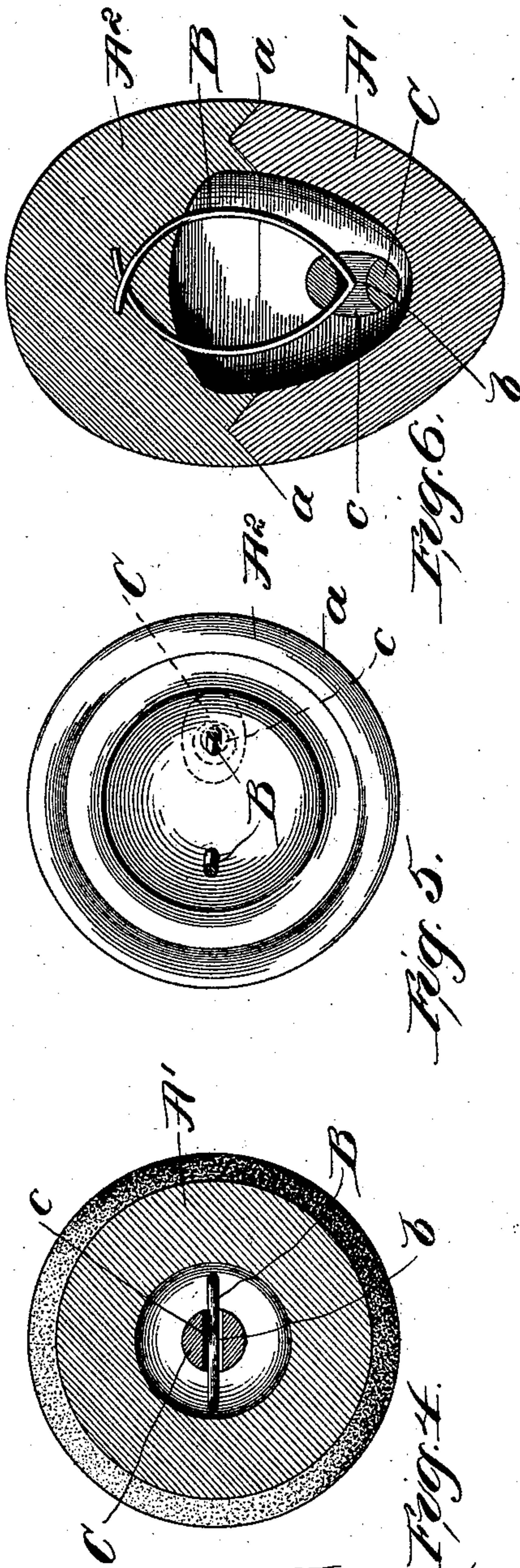
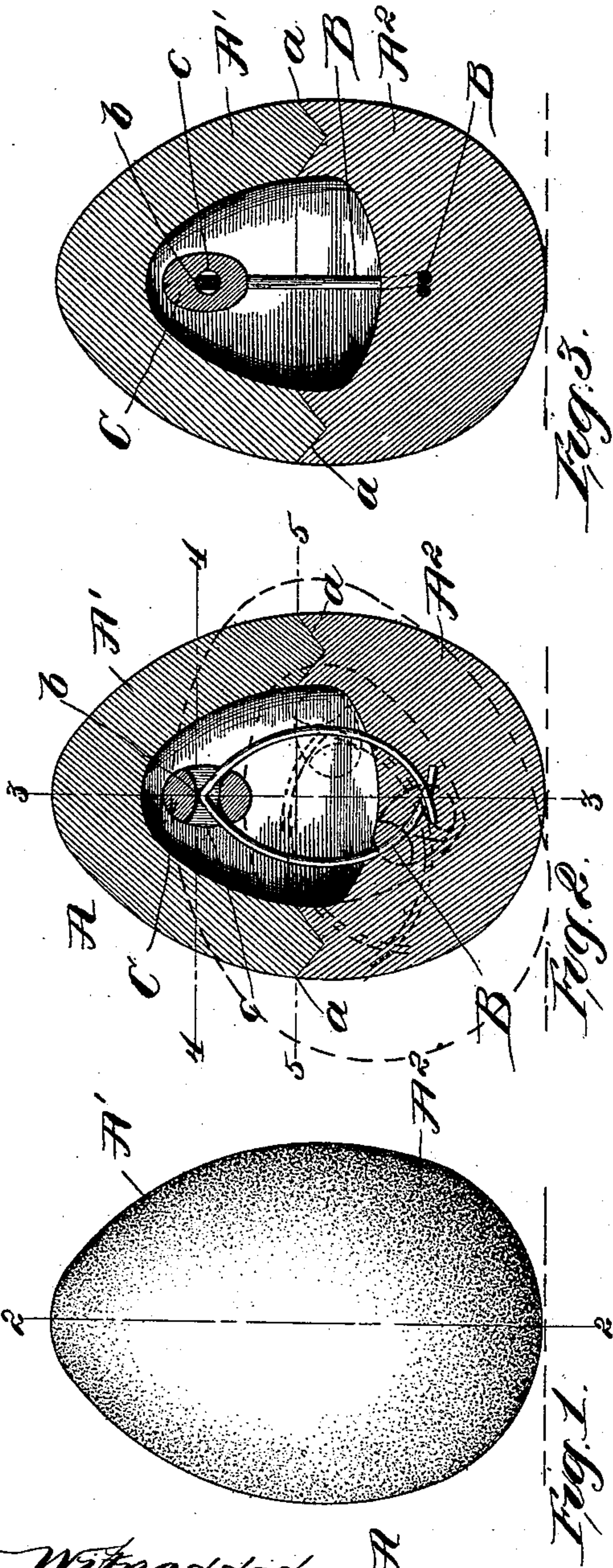


(No Model.)

C. A. ROGERS.
TRICK EGG.

No. 472,822.

Patented Apr. 12, 1892.



Witnesses:
W. C. Gozlic
W. J. Smith

Inventor:
Charles A. Rogers

UNITED STATES PATENT OFFICE.

CHARLES A. ROGERS, OF CHICAGO, ILLINOIS.

TRICK EGG.

SPECIFICATION forming part of Letters Patent No. 472,822, dated April 12, 1892.

Application filed August 24, 1891. Serial No. 403,632. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. ROGERS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Artificial Eggs.

My invention relates to that class of artificial eggs which are provided with latent apparatus for affecting their equilibrium, the object being to provide an amusing and instructive ornament, which may also be used as a puzzle or trick, by means of the construction hereinafter described, of which the following is a specification, reference being made to the accompanying drawings, in which—

Figure 1 is an elevation of my souvenir egg when set upon its large end. Fig. 2 is a vertical section taken on the line 2 2 of Fig. 1. Fig. 3 is a vertical section taken on the line 3 3 of Fig. 2. Fig. 4 is a plan section taken on the line 4 4 of Fig. 2. Fig. 5 is a plan section taken on the line 5 5 of Fig. 2 and through the joint between the upper and lower component parts of the shell of the egg; and Fig. 6 is a vertical section of the egg when inverted from the position shown in Fig. 2, taken on the line 2 2 of Fig. 1.

Similar letters of reference indicate corresponding parts throughout the several views.

In the drawings, which illustrate the best embodiment of my invention now known to me, A is the body or shell of the egg, this being made in two parts or sections A' and A², united permanently with each other, preferably by means of a V-shaped joint, as shown at *a*, though a plain butt-joint may be used if the parts are firmly cemented together. This shell may be made of any material (natural or artificial in composition) having a weight such as will give to the egg as a whole a specific gravity fairly comparable with that of a natural egg. The upper section A' is made hollow, while the lower section A², though hollow near the joint *a*, is nearly solid, thus giving the shell a fixed excess of weight at its large end, as shown, the object being to so distribute the weight around the major axis of the shell (the line 2 2, Fig. 1) that the shell of the egg (without considering its hereinafter-described contents) will be in a state of equilibrium only when resting on its large end, as shown in the first three fig-

ures. In order to disturb this state of equilibrium when the egg is handled by a person unfamiliar with its internal mechanism and yet allow of the preservation of this aforesaid equilibrium by a skilled operator, the following devices are employed: In section A² are secured the two ends of a loop of wire B, on which has previously been adjusted a sliding balance-weight C, the loop serving as a track upon which the balance-weight travels. This wire loop B is bent to the shape of a Gothic arch, the apex of the arch being at the topmost part (when the egg stands upon its large end) and in the major axis to which, however, all other projecting parts of the loop are in a sense eccentric, though the parts of the wire on opposite sides of said major axis are counterparts of each other and are in a plane with said major axis. The hole *c* in the balance-weight C, through which the wire B passes, is made just enough larger than the latter to allow the balance-weight to freely pass the apex *b*.

In the hands of a performer who has familiarized himself with the internal construction or who has otherwise learned the secret of balancing the egg on its large end the operation of this is as follows: The egg is first held with the said major axis in a perpendicular position with the small end down, as shown in Fig. 6. This causes the balance-weight C to run along the loop of wire B until it has centered itself at the apex *b*, (center of gravity,) the balance-weight C being usually found at one side of the apex *b* after the egg has been carelessly handled, as will hereinafter appear. If now the egg can be inverted without removing the center of gravity of the balance-weight C from the said major axis, the balance-weight will of course have no tendency to neutralize the natural tendency of the shell to balance itself on its large end, as both the apex of the wire B and the balance-weight C are still concentric with the said major axis, the balance-weight C now, however, resting on the convex side of the wire's apex rather than the concave side. This feat is accomplished by revolving the egg in a plane at right angles to the plane of the wire loop—viz., in the plane of the section of Fig. 3, this latter plane being indicated on the outside of the egg by lines or marks,

the presence of which is known to the skilled performer, but which have no significance to the uninitiated even if noticed by them. It will of course be understood that the ends of
 5 balance-weight C are symmetrical, in order that the center of gravity of the balance-weight may still remain in the major axis when the egg has been thus inverted and the point of suspension of the weight changed.
 10 The two parts of the wire B on opposite sides of the long or major axis aforesaid are made counterparts, as before mentioned, for the same reason. If the reversing of the egg from the position shown in Fig. 6 to that
 15 shown in Fig. 2 be attempted by revolving it in the plane of the loop (the plane of the section of Fig. 2) or in any plane through said major axis differing appreciably from the one above described, the balance-weight
 20 will of course run away from the apex and down one of the branches of the loop until it rests on the lower part of the shell and occupies a position eccentric to the said major axis, as shown in dotted lines in Fig. 2.
 25 This eccentric location of the balance-weight of course disturbs the natural equilibrium of the shell to a greater or less extent, according to the weight of the balance-weight, and causes the egg to assume an oblique position relatively to its plane of support when
 30 the egg is thus out of balance, while the line tangent to Figs. 1, 2, and 3 represents the relative position of the plane of support when the egg is balanced. Obviously, as there is
 35 but one right way and an indefinite number of wrong ways of reversing the egg, it will puzzle the uninitiated to balance the egg on its larger end—this, too, even after seeing the operation properly performed—if reasonable care
 40 has been used when designating the proper

plane on the outside of the egg to mix the marks in among other decorations, so as not to draw attention to the fact that they have any peculiar significance. It should be remarked that the fixed weight of the solid
 45 lower part of the shell should be low enough down and be great enough in comparison with the weight of the rest of the shell and the weight of the loop and balance-weight to insure that when the egg is once approximately
 50 balanced it will have a positive tendency to exactly balance itself, while at the same time the weight of the balance-weight must be relatively great enough to appreciably disturb the equilibrium of the egg when said balance-
 55 weight is in the position shown by the dotted lines. Theoretically, of course, the egg can be balanced without the use of any fixed weight at the large end of the egg.

The closer this artificial egg is made to resemble in every respect the natural egg (consistently with the herein-described construction) the greater will be the interest awakened.

While I have described above with considerable detail, much of the detail may of course
 65 be departed from without altering the invention itself. Accordingly,

What I claim as the invention itself, and desire to secure by Letters Patent, is—

1. An artificial egg having a fixed excessive weight at one end and also provided with a loop and balance-weight sliding thereon, substantially as and for the purpose set forth.
2. An artificial egg provided with a loop and balance-weight sliding thereon, substantially as and for the purpose set forth.

CHARLES A. ROGERS.

Witnesses:

THOS. HOOPES,

CLARK R. WARREN.