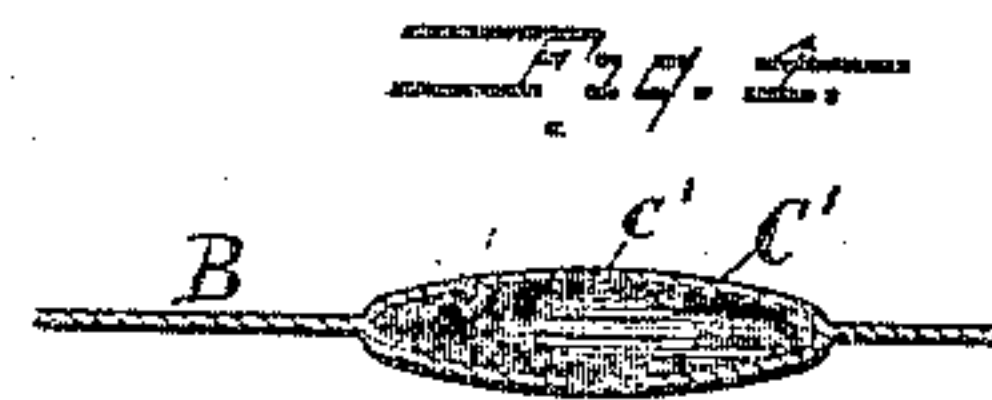
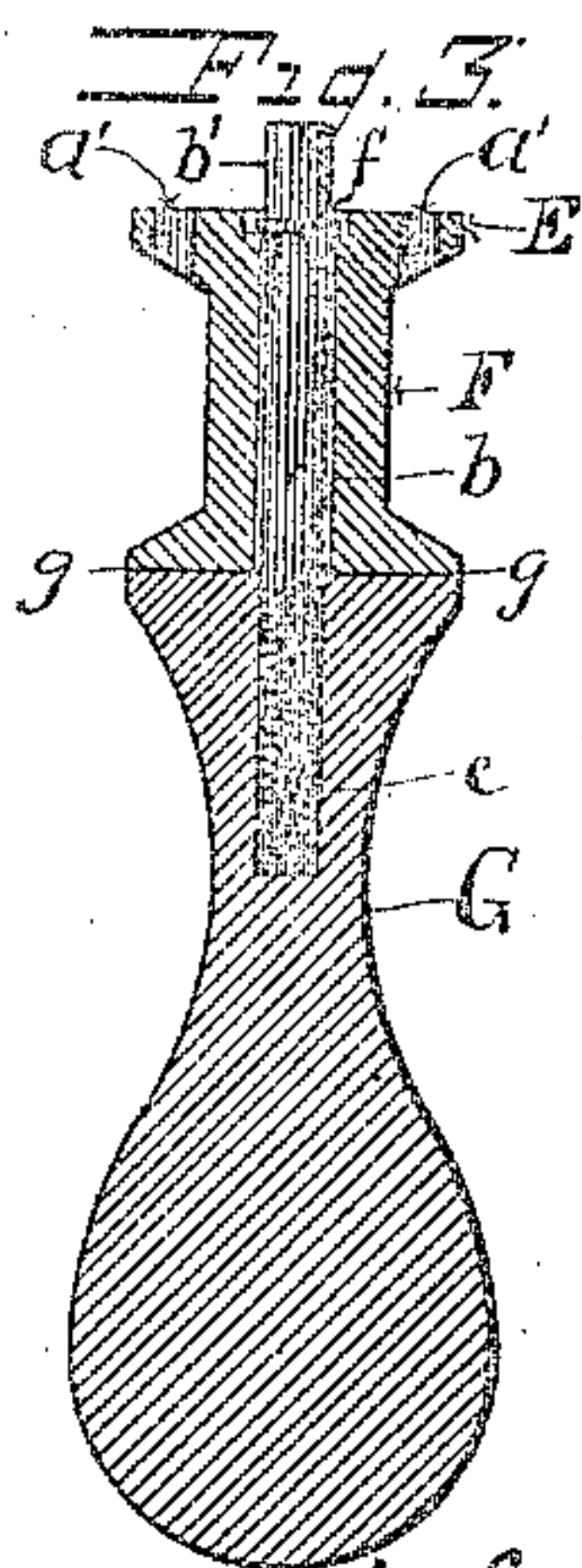
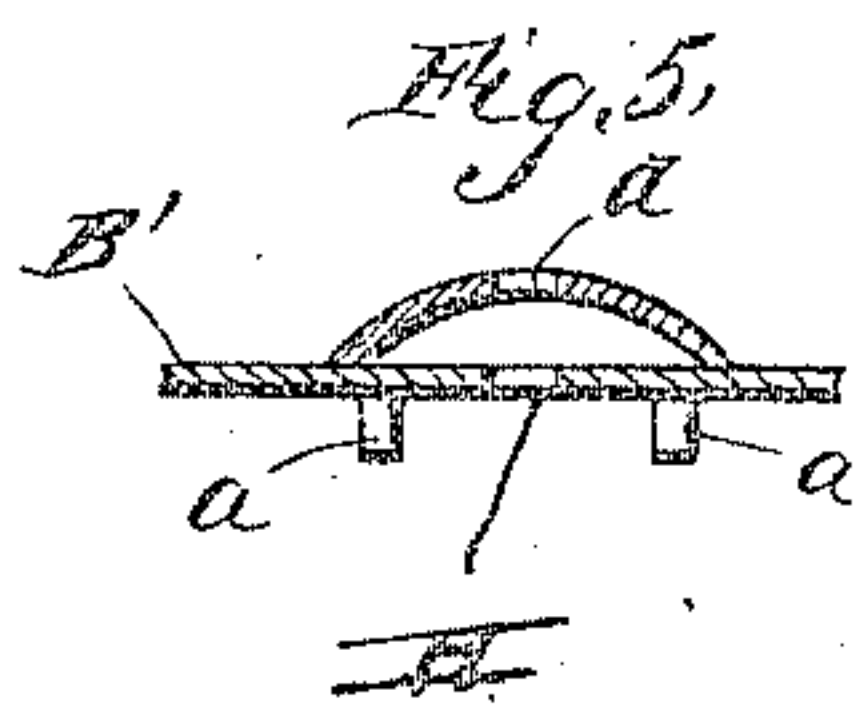
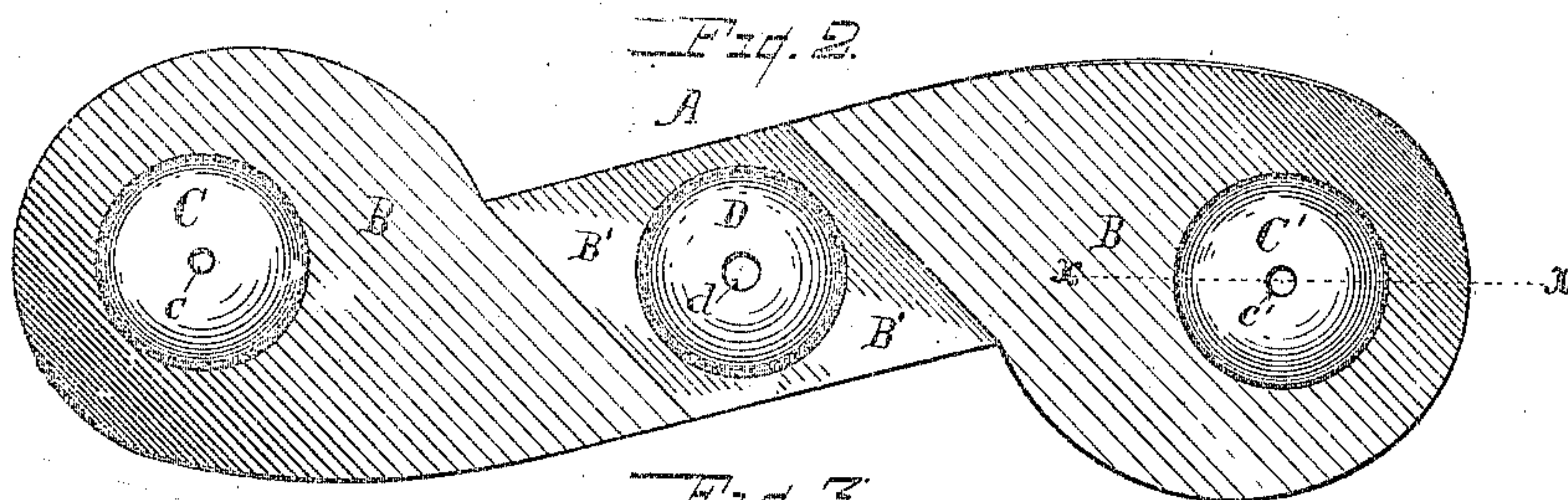
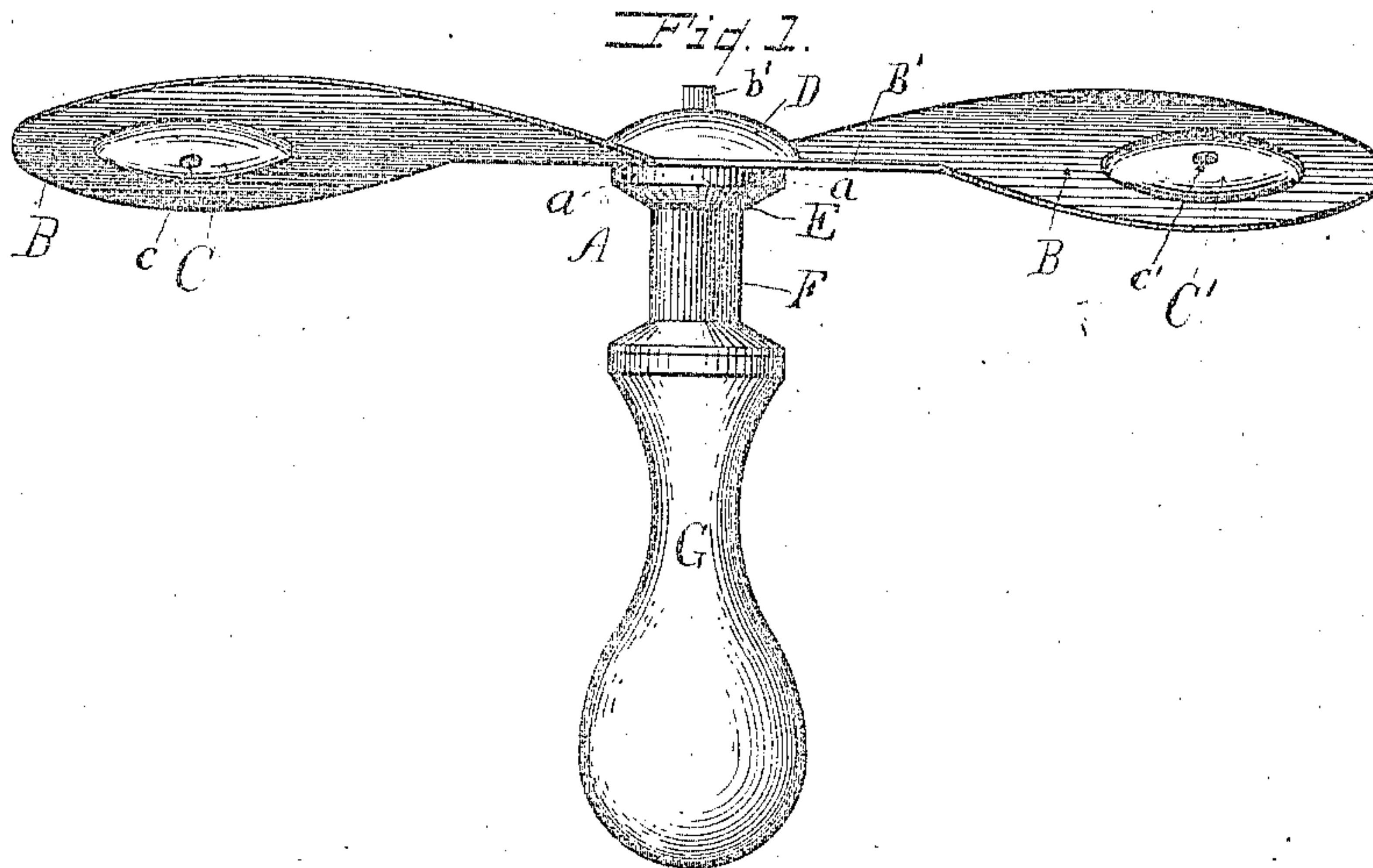


(No Model.)

E. G. KNOEPFEL & L. L. LICHTFIELD.  
FLYING TOY.

No. 421,290.

Patented Feb. 11, 1890.



Witnesses  
R. A. Balderson  
P. G. Fischer

E. G. Knoffel & L. Z. Lichtfield Inventors

By Their Attorneys  
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# UNITED STATES PATENT OFFICE.

ERNEST G. KNOEPFEL AND LOUIS L. LICHTFIELD, OF ARGENTINE, KANSAS.

## FLYING TOY.

SPECIFICATION forming part of Letters Patent No. 421,290, dated February 11, 1890.

Application filed September 13, 1889. Serial No. 323,829. (No model.)

*To all whom it may concern:*

Be it known that we, ERNEST G. KNOEPFEL and LOUIS L. LICHTFIELD, of Argentine, Wyandotte county, Kansas, have invented certain new and useful Improvements in Flying Toys, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to improvements in flying toys; and it consists in a certain novel construction and combination of parts, fully described hereinafter, in connection with the accompanying drawings, and specifically pointed out in the claim hereto appended.

In the drawings, Figure 1 is a side view of a toy embodying our improvements. Fig. 2 is a top plan view of the flier. Fig. 3 is a vertical sectional view of the handle which is employed to discharge the flier. Fig. 4 is a detail sectional view of one of the whistles, one of which is carried by each wing of the flier; and Fig. 5 is a detail sectional view of the central whistle of the flier, to show the depending lugs whereby the flier is rotated.

The flier A, which consists of the opposite rounded wings B B, is provided at its center with a flat portion B' to connect the wings, said flat portion carrying depending lugs or studs a a, and the handle G carries at its upper end a revoluble spool F, having an upper flange E, provided with sockets a' a' to receive the said lugs or studs when the flat connecting portion of the flier rests on the spool in position to be discharged. The revoluble spool is mounted on a vertical bolt b, which is provided with a lower threaded end to screw in the upper end of the handle, and is also provided near its upper end with a collar f, which bears on the upper end of the spool to hold it in place. The upper end of the bolt projects above the collar f to form a spindle b', which fits in a central perforation H in the flat portion of the flier, and also passes through a corresponding perforation in the center of the central whistle D, said whistle being so arranged that its perforation

d registers accurately with the perforation in the center of the flat portion B'. The lower flange g of the spool rests on the flat upper end of the handle, as clearly shown in Fig. 3.

In addition to the central whistle D, each wing of the flier is provided with a whistle C C', having perforations c c', said whistles being double-sided or double convex, as shown in Fig. 4.

The operation of the toy will be readily understood. A cord having been coiled a suitable number of times around the spool, the flat portion of the flier is placed on the upper end of the spool, so that the depending lugs or studs fit in the sockets a' a', and the vertical spindle fits in the central perforation, when, if the cord is pulled strongly, the flier will be rotated and will be caused to ascend, owing to the inclination of the wings B B, said inclination being clearly illustrated in Fig. 1. The motion of the flier causes the whistles which are carried thereby to be sounded, and as the perforation in the various whistles are purposely made of different sizes a peculiar fantastic sound will be produced.

Having thus described our invention, we claim—

The flying toy having the flat central portion B' with central opening H, depending lugs a, and whistle D, the rounded wings B, extending from the portion B' and having the whistle C C', the handle having the bolt, the spool loose on the latter and having the opening a' to receive the lugs a, the upper end of the bolt being adapted to enter the opening H, and the collar f on the bolt to retain the spool thereon, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

ERNEST G. KNOEPFEL.  
LOUIS L. LICHTFIELD.

Witnesses:

R. A. BALDERSON,  
MARY SULLIVAN.