

No. 753,831.

PATENTED MAR. 1, 1904.

D. L. MUNRO.
PUZZLE.

APPLICATION FILED SEPT. 12, 1903.

NO MODEL.

Fig. 1

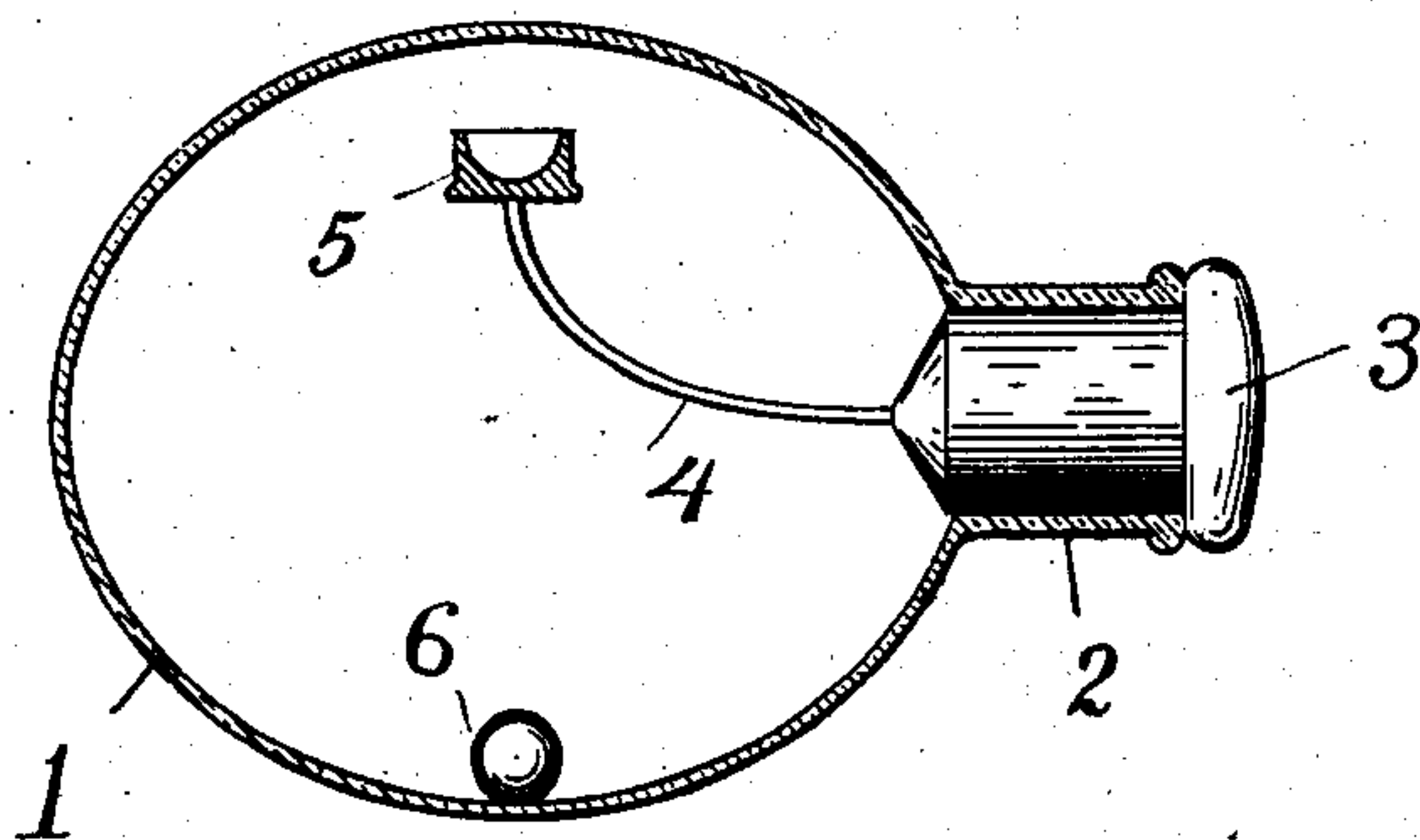


Fig. 2

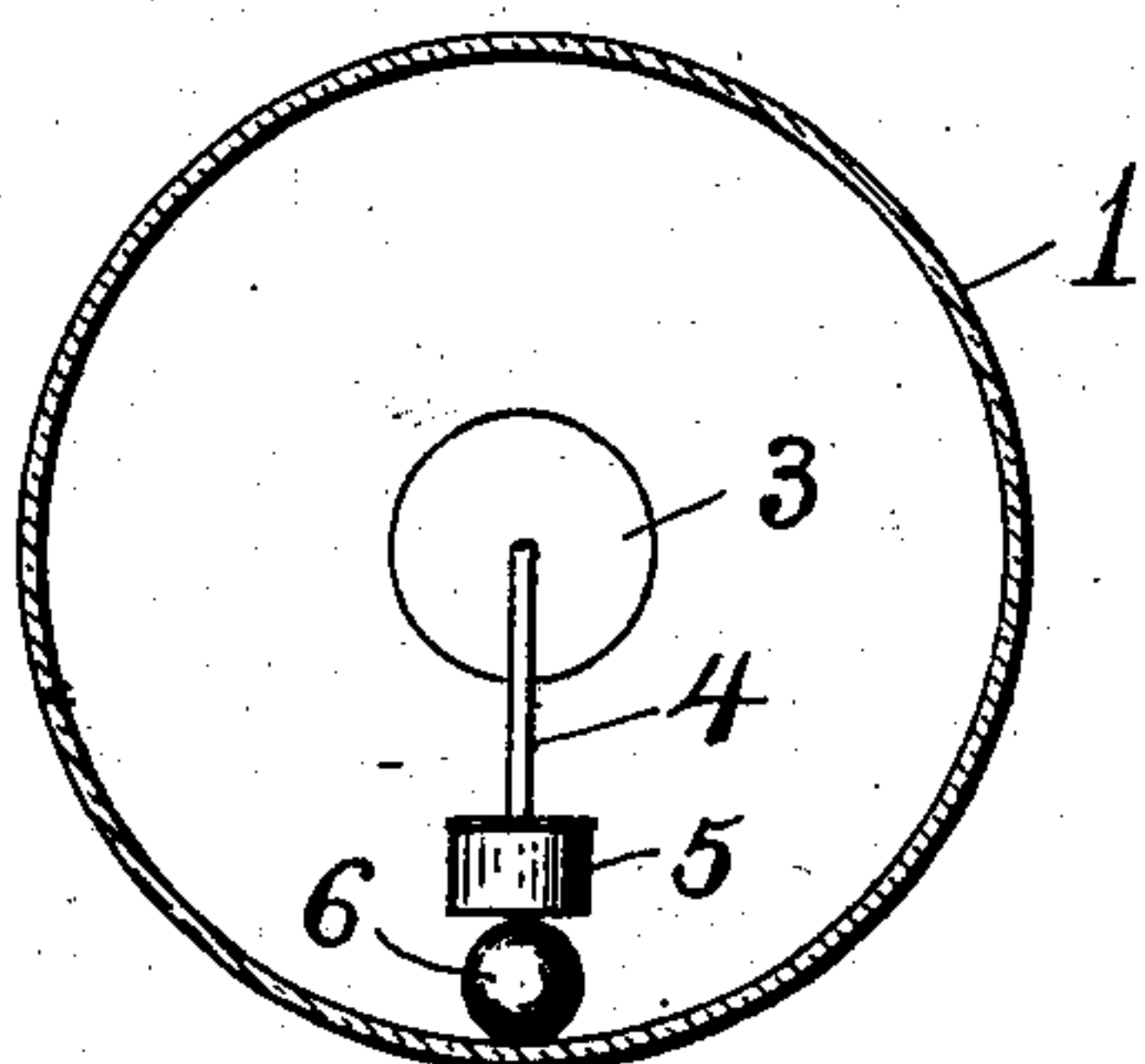
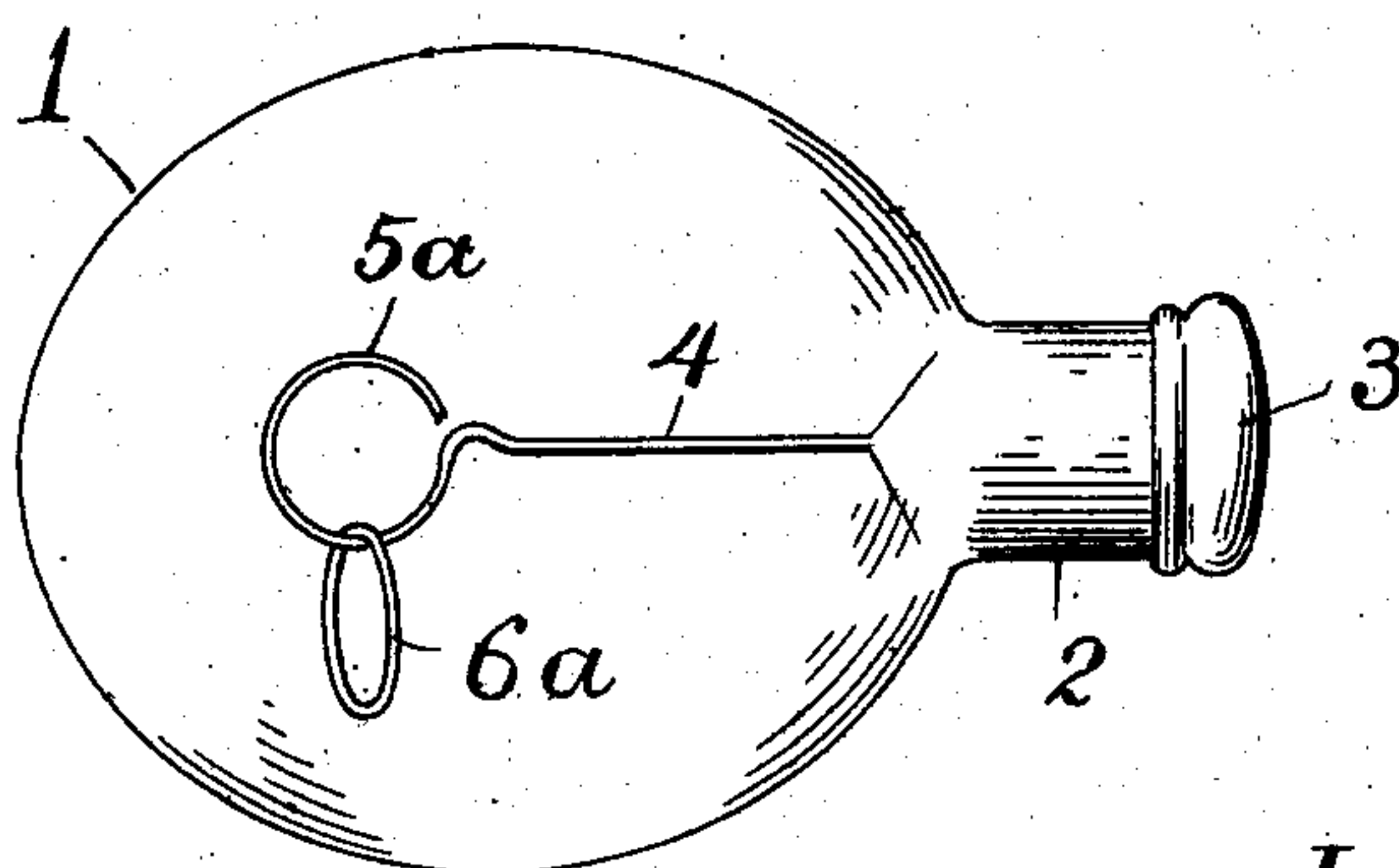


Fig. 3



Witnesses;

C. E. Tilton.

W. L. Goodrich.

Inventor.

David L. Munro;

By *A. B. M. Shann*,
His Attorney.

UNITED STATES PATENT OFFICE.

DAVID L. MUNRO, OF AUBURNDALE, MASSACHUSETTS.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 753,831, dated March 1, 1904.

Application filed September 12, 1903. Serial No. 172,987. (No model.)

To all whom it may concern:

Be it known that I, DAVID L. MUNRO, a citizen of the United States, and a resident of Auburndale, in the county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Puzzles, of which the following is a full, clear, and exact description.

Referring to the drawings forming part of this specification, Figure 1 is a longitudinal section of the preferred form of my invention. Fig. 2 is a transverse section of the same. Fig. 3 is a side view of a modified form of my invention.

The reference-numeral 1 designates a glass receptacle or bottle formed with a neck 2, closed by the stopper 3. This bottle may be a perfect sphere; but I prefer, for appearance's sake more than anything else, to have it substantially ovoid, retaining still the circular contour of its transverse section, as shown in Fig. 2.

Projecting from the inner end of the stopper 3 is a wire 4, bearing at its upcurved extremity a small cup 5, the distance of whose edge from the inner face of the bottle is preferably but slightly more than the diameter of the ball 6 introduced within said bottle. This ball is preferably a steel sphere of the kind used in ball-bearings in order that it may be perfectly spherical, and so capable of more free rotation in the bottle. The puzzle is to deposit the ball within the cup, a trick which seems comparatively simple; but much time will be taken and interest excited before this can be accomplished. Some persons will attempt to accomplish the result by holding the bottle upside down to cause the ball to come to rest immediately beneath the cup, and then by a sudden downward sweep given to the bottle to try and engage the ball by the cup. Occasionally this may succeed; but a far more skillful and frequently victorious method is to set the ball to rotating about the interior

of the bottle by a suitable motion applied to the latter and then to slow down such revolving of the ball until its centrifugal energy is slightly less than its gravity. When such forces are accurately adjusted, the ball as it approaches the highest point of the bottle will leave the bottle-surface and curve over into the cup, and a person who has become somewhat expert therein will solve the puzzle many times in succession. If the cup were located at or near the center of the bottle, it would be comparatively easy to drop the ball therein after the manner of the well-known cup-and-ball game; but located near the upper surface, as shown, the cup and ball can be brought into the mutual relation sought only in the ways described.

The modification of my invention shown in Fig. 3 consists in substituting the ring 6^a for the ball and a nearly-closed hook 5^a for the cup, the trick being to bring the ring into the engagement of the hook, as shown. While this is nearly if not quite as difficult as the cup-and-ball arrangement, it is less interesting and amusing than the latter.

What I claim as my invention, and for which I desire Letters Patent, is as follows, to wit:

The combination with a transparent receptacle or bottle having a neck, of a stopper fixed in said neck, an upwardly-curving elongated member projecting from the inner end of said stopper, a cup held by said member with its edge near the inner face of the receptacle or bottle, and a ball in said receptacle, substantially as described.

In testimony that I claim the foregoing invention I have hereunto set my hand this 10th day of September, 1903.

DAVID L. MUNRO.

Witnesses:

CHARLES E. TILTON,
A. B. UPHAM.