No. 679,205. Patented July 23, 1901.

C. R. BARRETT & E. C. PHILLIPS.

BOWLING ALLEY PIN.

(Application filed Apr. 20, 1901.)

(No Model.)

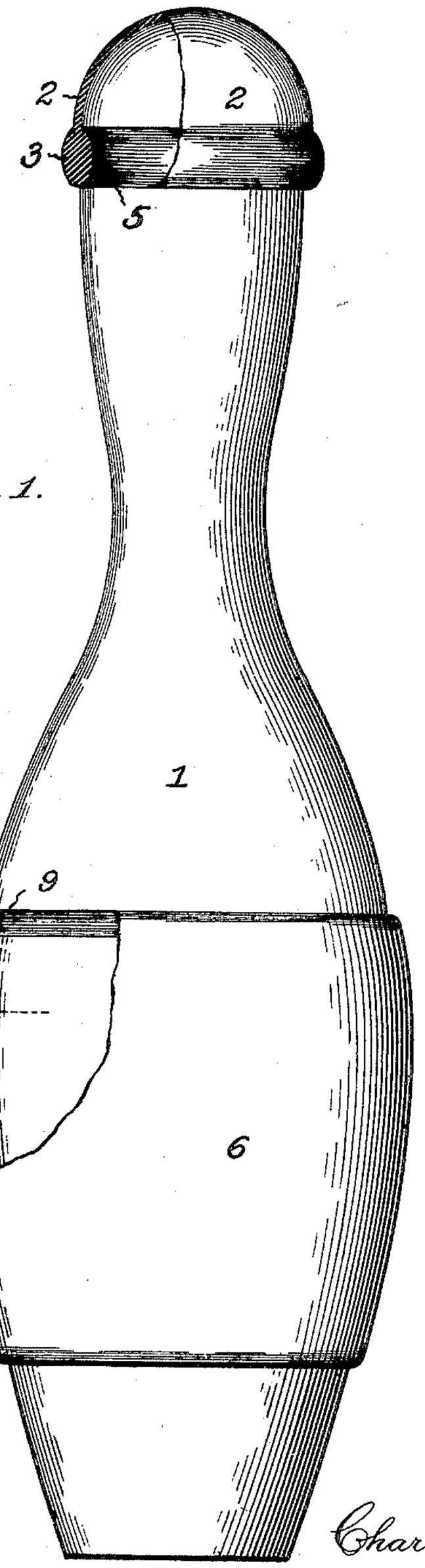

Fig. 1.

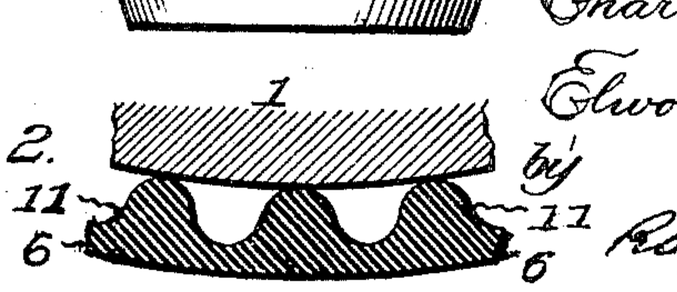

Fig. 2.

Attest:

John Enders Jr.

Henry A. Nott

Inventors:

Charles R. Barrett and

Elwood C. Phillips;

by

Robert Burns

Attorney.

UNITED STATES PATENT OFFICE.

CHARLES R. BARRETT AND ELWOOD C. PHILLIPS, OF CHICAGO, ILLINOIS.

BOWLING-ALLEY PIN.

SPECIFICATION forming part of Letters Patent No. 679,205, dated July 23, 1901.

Application filed April 20, 1901. Serial No. 56,703. (No model.)

To all whom it may concern:

Be it known that we, CHARLES R. BARRETT and ELWOOD C. PHILLIPS, citizens of the United States, and residents of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bowling-Alley Pins, of which the following is a specification.

The present invention relates to that type of pins employed in bowling or ten-pin alleys and which are adapted to be set up at one end of the alley and be knocked over by the impact of a ball rolled by an operator at the other end of such alley.

The object of the present improvement is to provide a simple and efficient construction of a pin for such uses with which the noise produced in the impact of the bowling-ball therewith is reduced to a minimum and with which the lifetime of both the ball and pin is materially prolonged, as will hereinafter more fully appear and be more particularly pointed out in the claims. We attain such object by a construction and arrangement of parts, substantially as shown in the accompanying drawings, in which—

Figure 1 is an elevation of a bowling-alley pin embodying the present invention, portions being shown broken away and in section to better illustrate the construction. Fig. 2 is an enlarged fragmentary horizontal section at line *x*, Fig. 1.

Similar numerals of reference indicate like parts in both views.

Referring to the drawings, 1 represents the bowling-alley pin of the usual and familiar form and construction.

2 is an elastic cap inclosing the top portion of the pin and secured thereon in any usual and suitable manner, preferably, however, by means of a ring-shaped formation 3 on the lower end of the cap adapted to contract into and engage in a peripheral groove 5, formed therefor in the upper portion of the pin 1.

6 is an elastic sleeve inclosing the body portion of the pin and secured thereto in any usual and approved manner, preferably, however, by means of ring-shaped or inturned marginal top and bottom flanges 7 and 8, adapted to contract into and engage in corresponding peripheral grooves 9, formed therefor in the body portion of the pin.

Another part of the present invention consists in forming the above-described elastic or cushion portions with confining air-spaces to afford a maximum elasticity to the same with a minimum amount of weight. In our preferred construction for attaining such confined-air spaces or cells as shown in Fig. 2, 11 represents a series of corrugations formed on the inner wall of such cushion members, the spaces between the corrugations forming the isolated air-containing cells of the present invention.

We have described our invention in detail, but do not wish to be limited to the specific construction shown, as various modifications may be made to suit varied requirements in the art and yet be within the province of the present invention.

Having thus fully described our said invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A bowling-alley pin, in combination with an elastic covering fitting the impact portions of the pin, and provided with confined-air spaces, substantially as set forth.

2. A bowling-alley pin, in combination with an elastic covering fitting the impact portions of the pin, and provided with confined-air spaces formed by corrugations on the inner wall of the covering, substantially as set forth.

3. A bowling-alley pin, in combination with an annular elastic covering fitting the body portion of the pin, and secured thereon by annular top and bottom enlargements engaging peripheral grooves in the pin, substantially as set forth.

In testimony whereof witness our hands this 18th day of April, 1901.

CHARLES R. BARRETT.
ELWOOD C. PHILLIPS.

In presence of—
ROBERT BURNS,
HENRY A. NOTT.