No. 633,106. Patented Sept. 12, 1899.

C. B. ROBUCK.

VALVE FOR INFLATION.

(Application filed May 14, 1898.)

(No Model.)

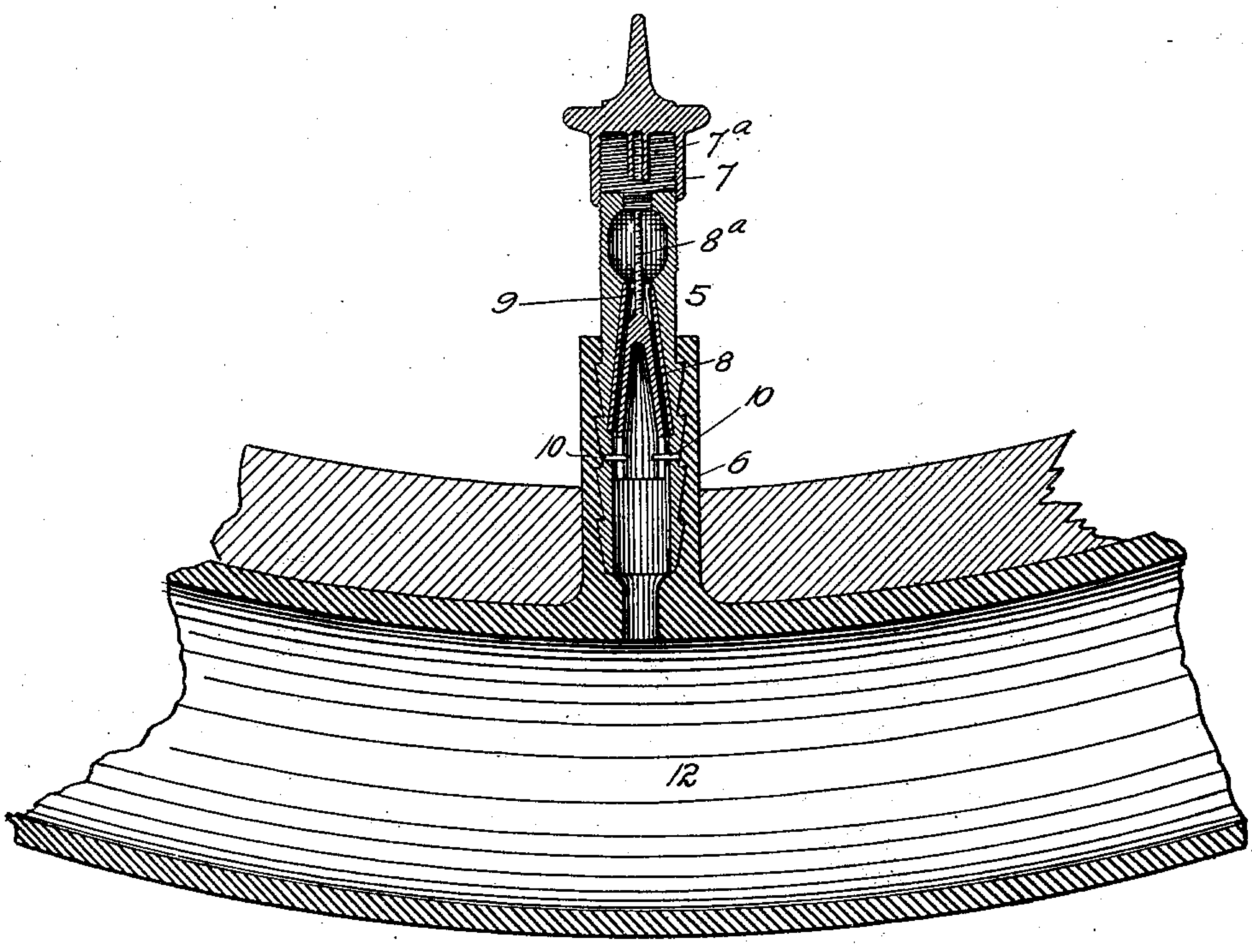

FIG. 1

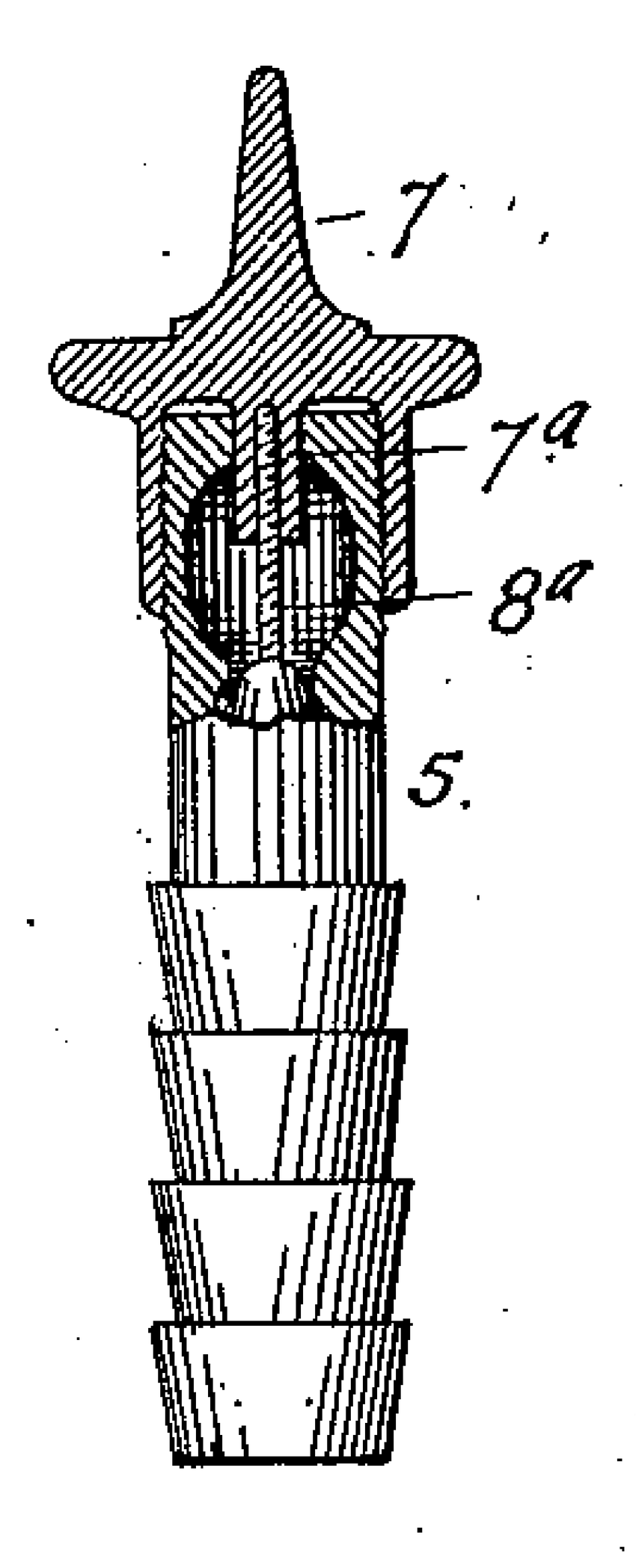

FIG. 2

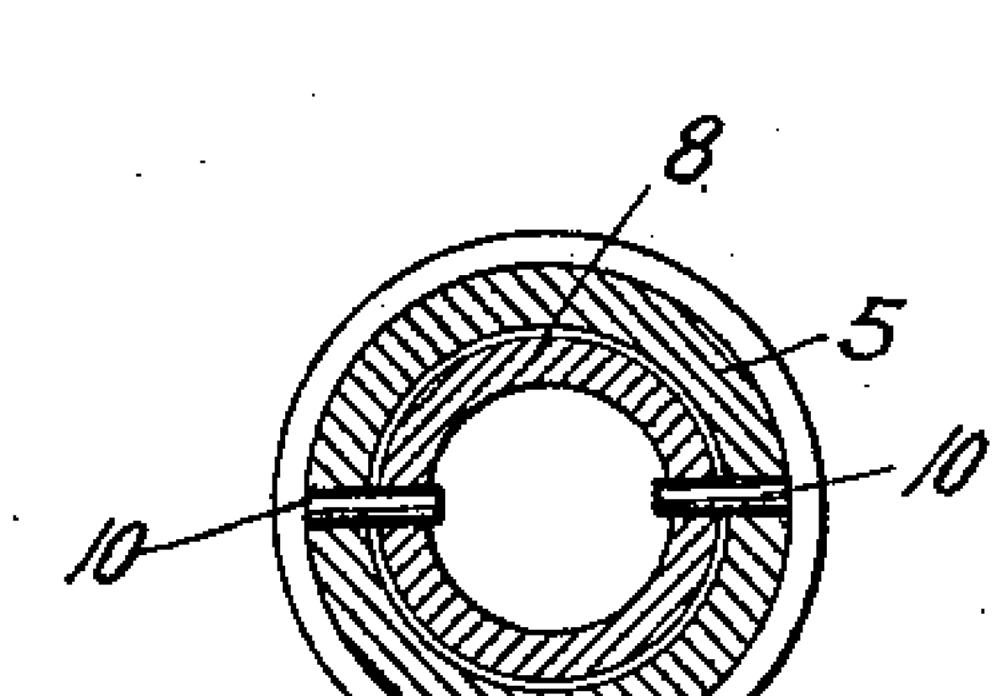

FIG. 4

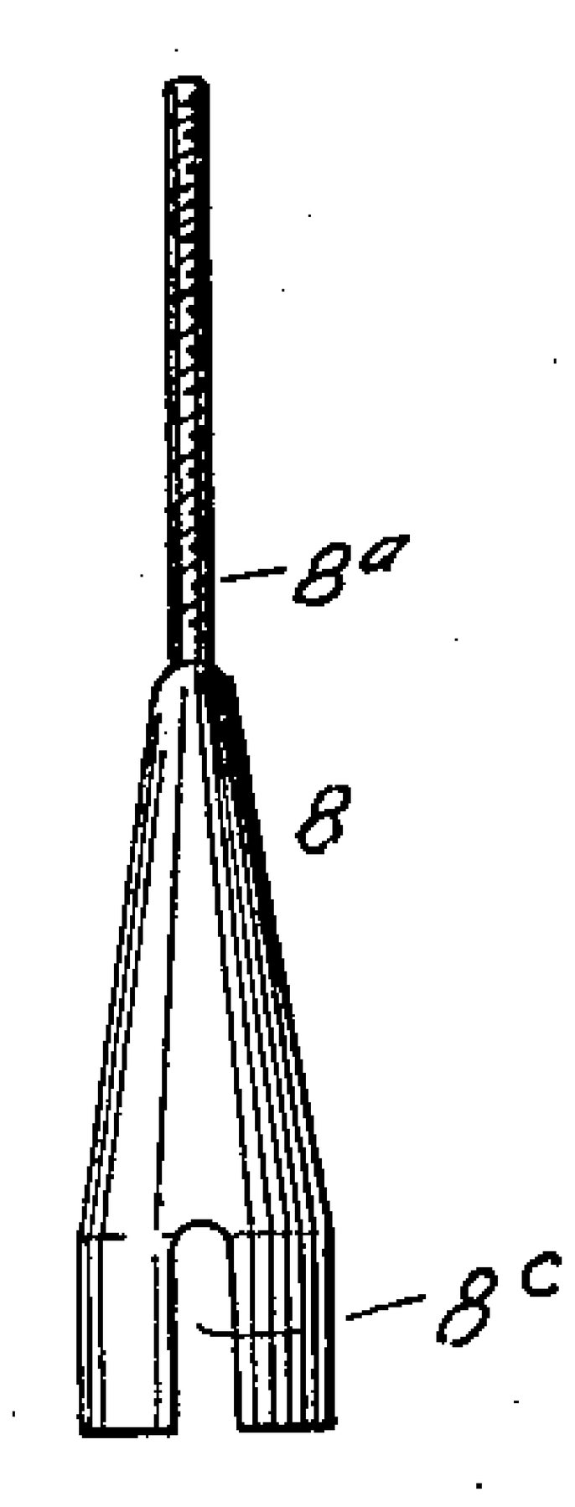

FIG. 3.

Witnesses
[signature]
Edith Hunsworth.

By his Attorney [signature]

Inventor
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES B. ROBUCK, OF DENVER, COLORADO.

VALVE FOR INFLATION.

SPECIFICATION forming part of Letters Patent No. 633,106, dated September 12, 1899.

Application filed May 14, 1898. Serial No. 680,688. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. ROBUCK, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Valves; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in valves specially adapted for use in connection with pneumatic tires for bicycles, my object being to provide a device of this class which shall be simple in construction, economical in cost, reliable, durable, and efficient in use; and to these ends the invention consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a longitudinal section taken through my improved valve, shown in connection with a bicycle-tire, the cap of the valve being partly unscrewed. Fig. 2 is a detail view of the valve, shown partly in section and in the closed position. Fig. 3 is a detail view showing the valve proper in elevation. Fig. 4 is a cross-section taken on the line $x\ x$, Fig. 1.

Similar reference characters indicating corresponding parts in the views, let the numeral 5 designate the valve-casing having a ribbed or roughened surface adapted to enter the tube 6 of the tire. The top of this casing is exteriorly threaded to receive a screw-cap 7, having a central depending interiorly-threaded sleeve 7^a, adapted to engage a threaded stem 8^a, with which the upper extremity of the valve proper 8 is provided. The threads of the stem 8^a and depending sleeve 7^a are differential in relation to the threads of the cap 7. The body of this valve is hollow and cone-shaped, whereby it is adapted to fit the interior conical wall of the valve-casing, which is provided with a rubber lining 9, forming a seat for the valve and making an air-tight joint. The lower extremity of the valve 8 is provided with two slots 8^c, which engage pins 10, fast in the casing and projecting into the valve-chamber. These pins limit the downward movement of the valve and also prevent it from turning in the casing, as it might otherwise do while screwing the sleeve 7^a of the cap upon the stem 8^a.

The top of the casing is provided with a threaded opening into which the nipple of an air-pump may be screwed for the purpose of inflating the tire 12. As the air is forced into the valve-casing, the valve 8 is forced inwardly and unseated, thus allowing the air to pass around the valve and thence through the casing into the tire. The back pressure of the air holds the valve firmly against its seat.

Having thus described my invention, what I claim is—

1. In combination, the valve-casing having a seat, a valve therein having a threaded stem connected thereto to positively move the valve outwardly against its seat, and a threaded cap engaging threads on the valve-casing and having a threaded depending sleeve rigidly connected therewith engaging the valve-stem, substantially as described.

2. In combination, the valve-casing, the valve, the threaded stem on the valve, the threaded cap engaging threads on the valve-casing and having a sleeve rigidly connected with the cap and provided with threads engaging those of the stem, the said threads of the stem and sleeve being differential in relation to the threads of the cap and valve-casing, substantially as described.

3. In combination, the valve-casing having the pins 10 10, the valve having openings to receive the pins, and having also a threaded stem, and a cap having threads to engage threads on the casing and having also a threaded sleeve rigidly connected to the cap and adapted to engage the threaded stem, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES B. ROBUCK.

Witnesses:

G. J. ROLLANDET,

A. J. O'BRIEN.