

(No Model.)

C. F. BROWNE.
TIRE FOR BICYCLES.

No. 582,172.

Patented May 11, 1897.

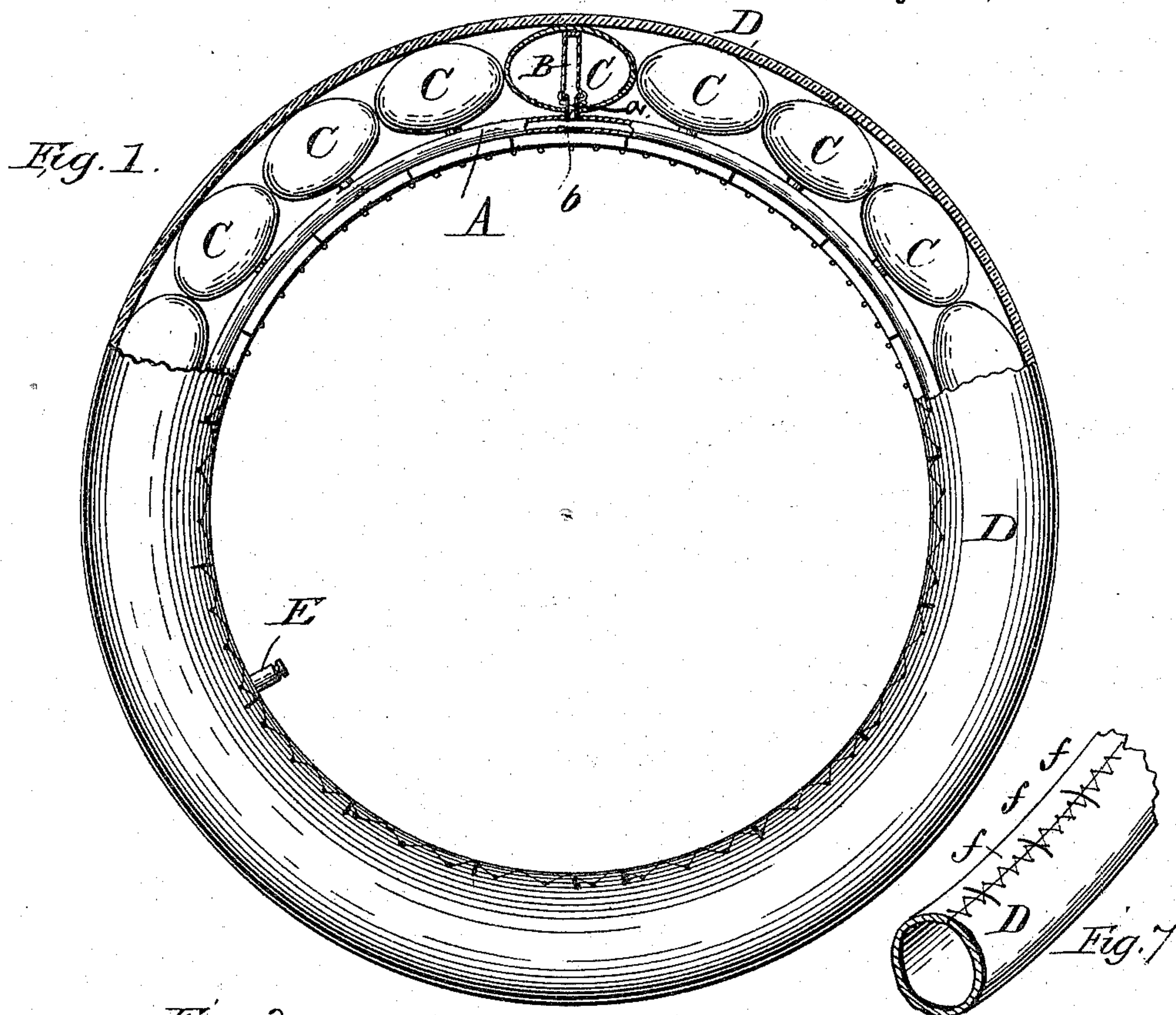


Fig. 2.

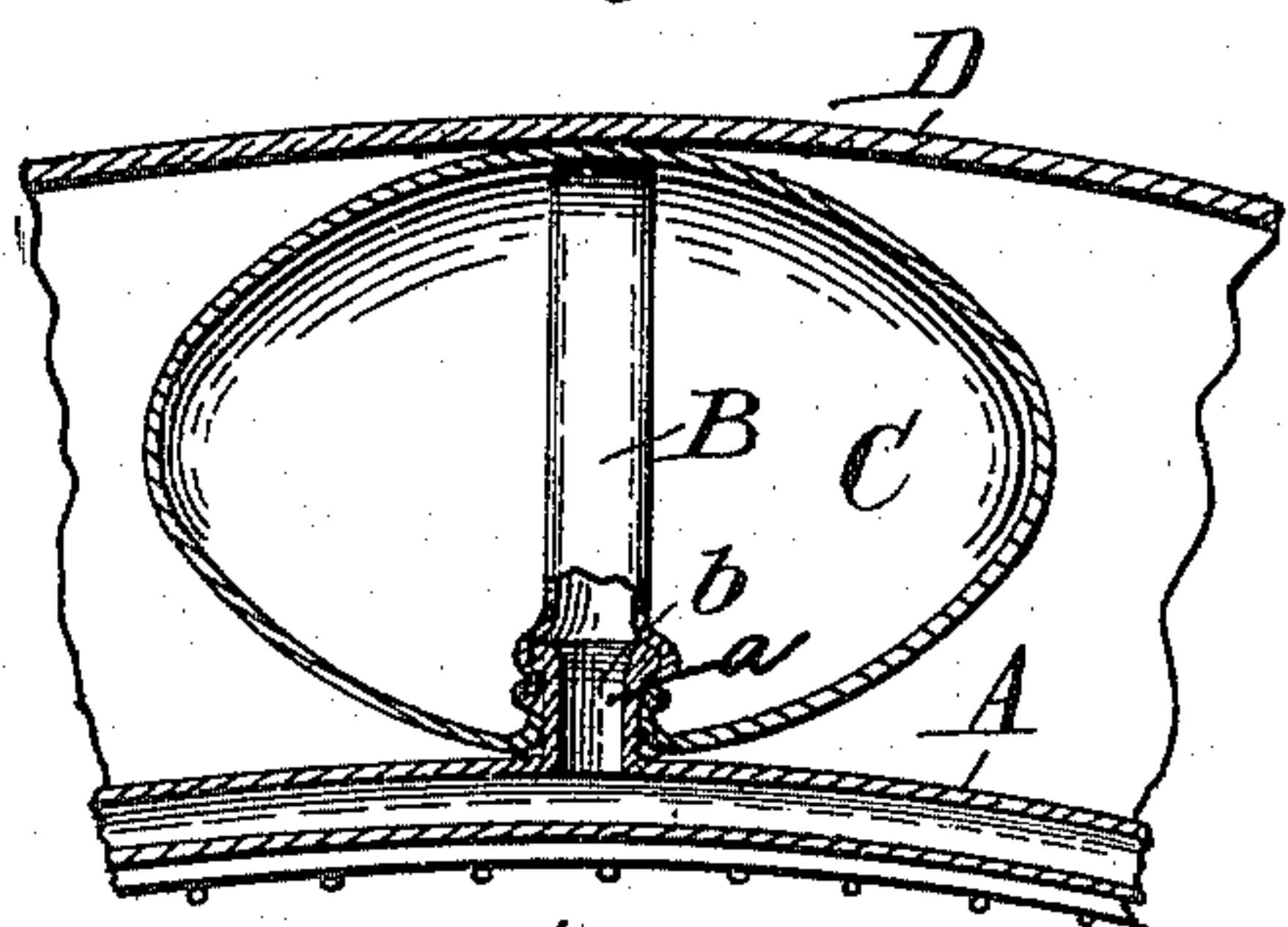


Fig. 5.

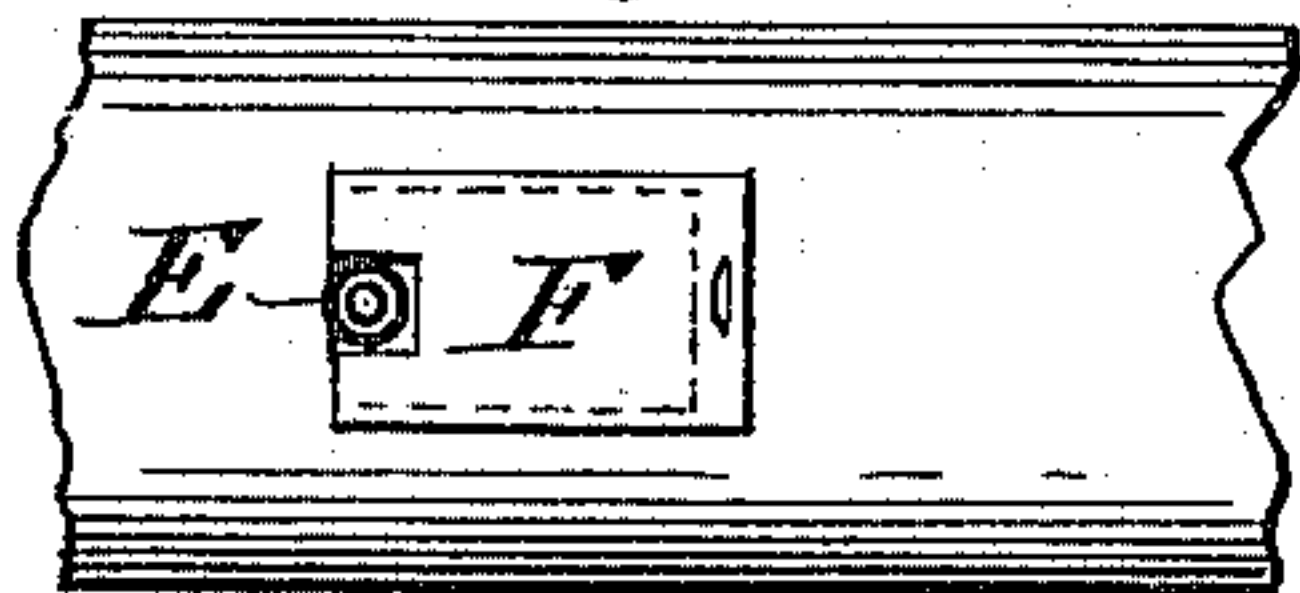


Fig. 41.

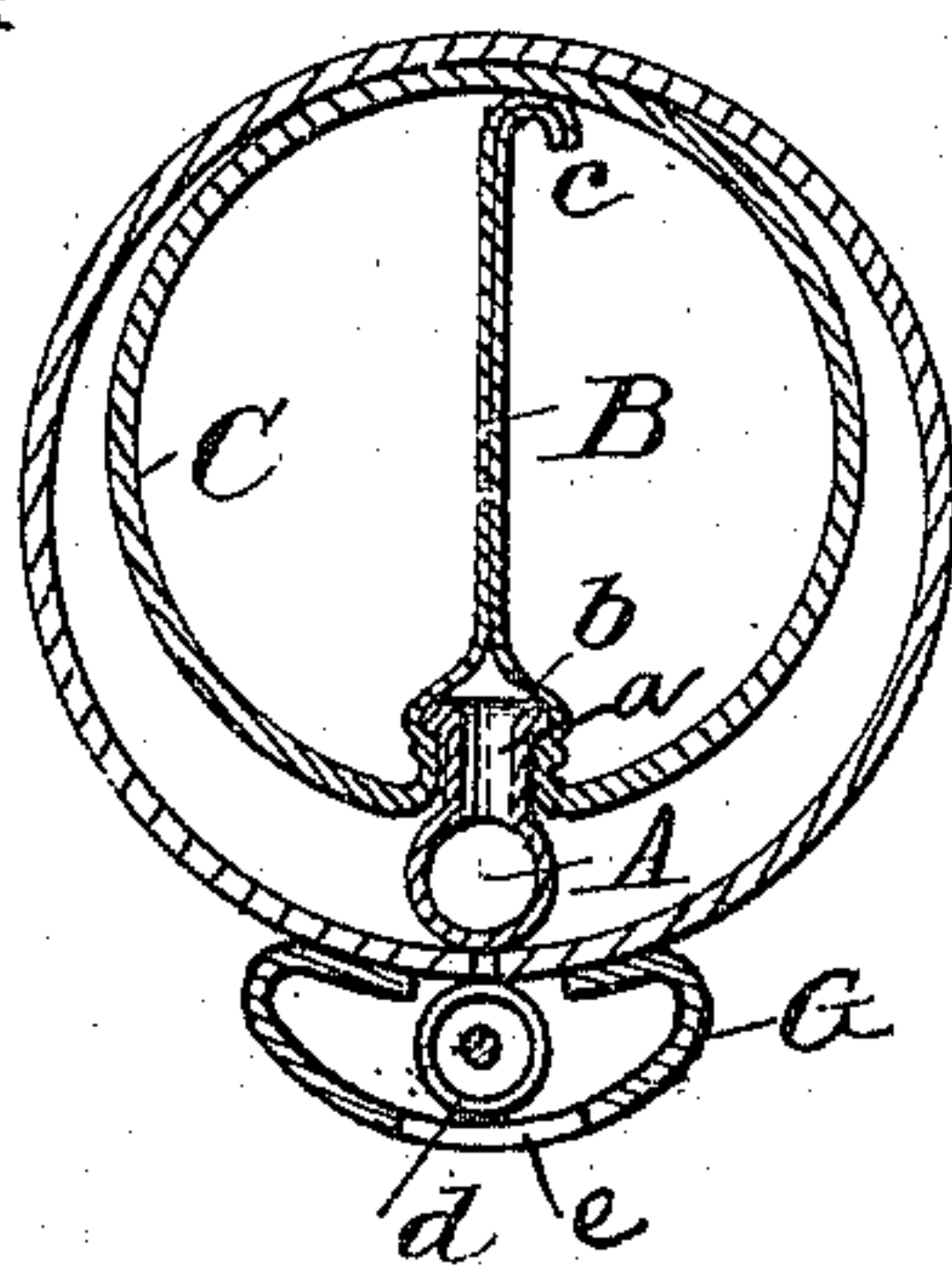


Fig. 3

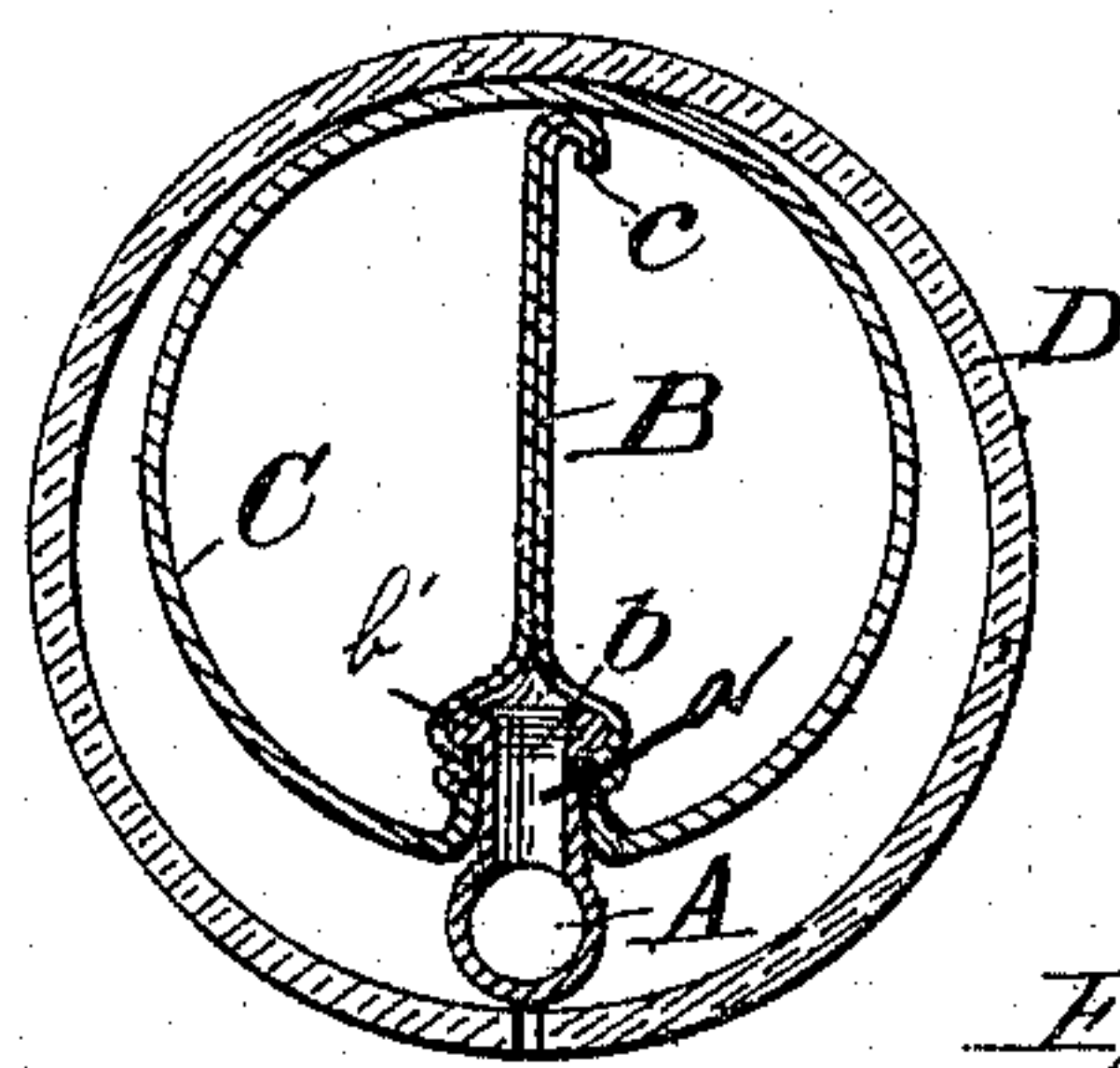
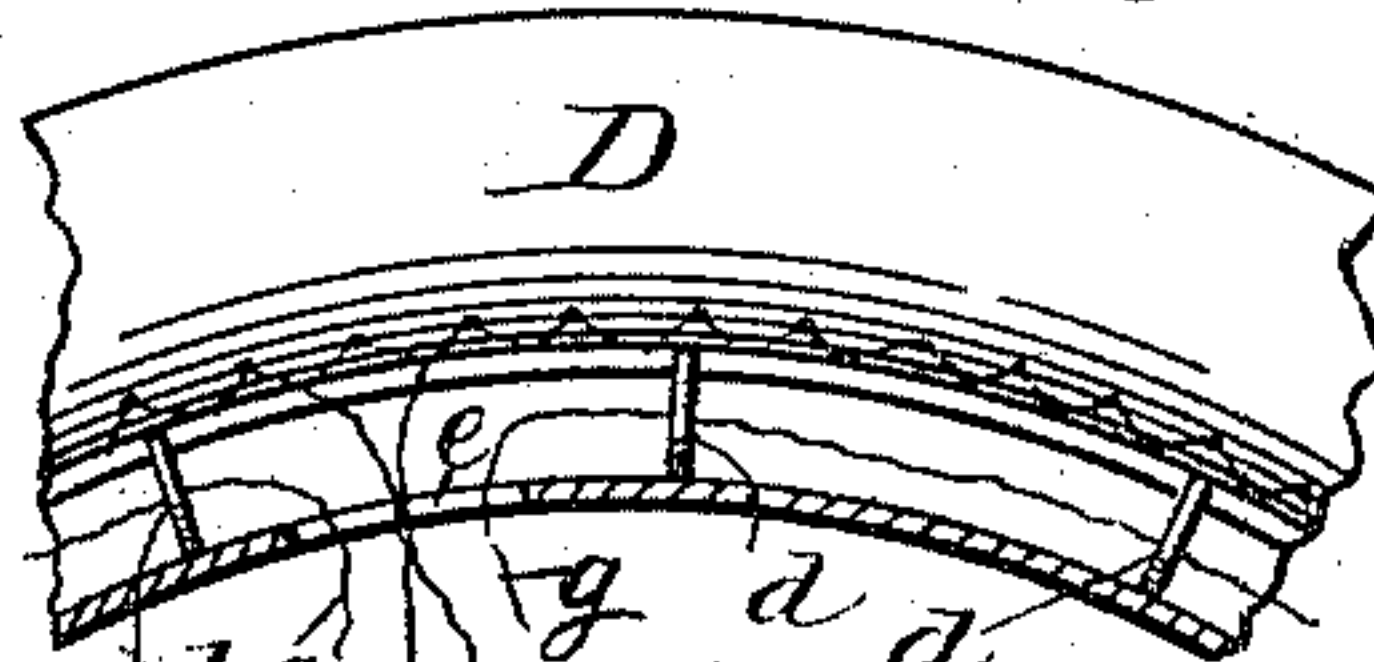


Fig. 6



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES F. BROWNE, OF WESTFIELD, MASSACHUSETTS.

TIRE FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 582,172, dated May 11, 1897.

Application filed January 23, 1896. Serial No. 576,558. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. BROWNE, a citizen of the United States, residing at Westfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Tires for Bicycles or other Vehicles; 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 letters of reference marked thereon, which form a part of this specification.

This invention has relation to improvements in pneumatic tires for bicycles or other vehicles; and it consists in the novel construction and arrangement of parts, as will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of my invention, partly in section. Fig. 2 is an enlarged detail view. Fig. 3 is a transverse section. Fig. 4 is a transverse section showing the tire applied to a felly or rim. Fig. 5 is an inside view of the felly or rim, showing the slide. Fig. 6 is a partial section of Fig. 4, showing the lacing and cord for holding rings to the rim; and Fig. 7 is a detail view of the tire, showing the flaps.

Referring to the drawings, the letter A represents a surrounding inflating-tube having formed therewith at suitable intervals thereon a series of independent projections *b*, each being provided with a button *b'* on the upper extremity, as shown in Fig. 3, for a purpose to be presently explained.

The letter C designates bags, made in oblong or barrel-shape form, said bags being arranged side by side, as shown in Fig. 1. These bags are each provided with elongated valves B, formed therewith and being virtually the necks of the bags. Each of these valves where they merge into the bags is provided with a thick reinforce or rubber ring *a*, which is formed with the valve, whereby when said ring is forced over the button it will securely hold said bags thereon.

The walls of the inflating-tube A are constructed sufficiently thick to resist air-pressure exerted by the inflation of the bags, while

the projections *b* of said tube allow free passage of air through the valves B and into the bags. This action is accomplished by the pressure of air forced through the pump-tube E. The valves B are made of thin-rubber tubing rolled flat and are constructed of sufficient length so that their upper ends will curve, as shown at *c*, and bear against the inner upper surface of the bags, so that the air-pressure developed by the inflated bags will immediately close the valves on the removal of the pump from the tube E, thereby preventing the air contained in the bags from returning to the inflating-tube. Each bag is to be of such capacity so as to hold enough of air so that they will abut one against the other, thereby leaving no space between them.

In case of puncture of a bag and consequent escape of air therefrom the bags next on opposite sides thereof close up and take the place of the punctured bag, the other bags in the tire also closing in turn one against the other, whereby the punctured bag is not missed from the tire. By applying the pump to the inflating-tube the bags may be further stretched, so as to more readily fill the space of one or more punctured bags, thus making the tire in as good condition as before puncturing. The letter D denotes the outside cover, made of any suitable material, said cover inclosing the bags and inflating-tube. The meeting ends of the cover are provided with a series of flaps or sections *f*, which are lined with canvas to prevent stretching. The object of forming these sections in such manner is to prevent puckering and also to readily facilitate the removal of a punctured bag and substituting a new one without wholly removing the cover. Rings *d* are attached in any suitable manner to the sections *f*. Cords *g* pass through these rings and are secured in an opening *e* of the rim, said opening being closed by a slide F in said rim.

Having described my invention, what I claim is—

1. A vehicle-tire having inclosed therein a series of bags, each having a valve with their upper ends curved and adapted to bear against the inner upper surfaces of the bags; whereby when one of the series of said bags is punctured the adjacent bags expand and

close the valve of the punctured bag and thus prevent the leakage of air substantially as and for the purpose set forth.

2. A vehicle-tire having an inflating-tube
5 with a series of projections, provided with buttons thereon, and bags with integral valves and rings, said rings being forced over the buttons, a cover for inclosing said inflating-tube, and bags, the cover being provided with

a series of canvas flaps or sections at its meet- 10
ing edges and lacings connected to said edges, substantially as specified.

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

CHARLES F. BROWNE.

Witnesses:

GEO. C. POULTON,
FRANCK L. OURAND.