

No. 699,594.

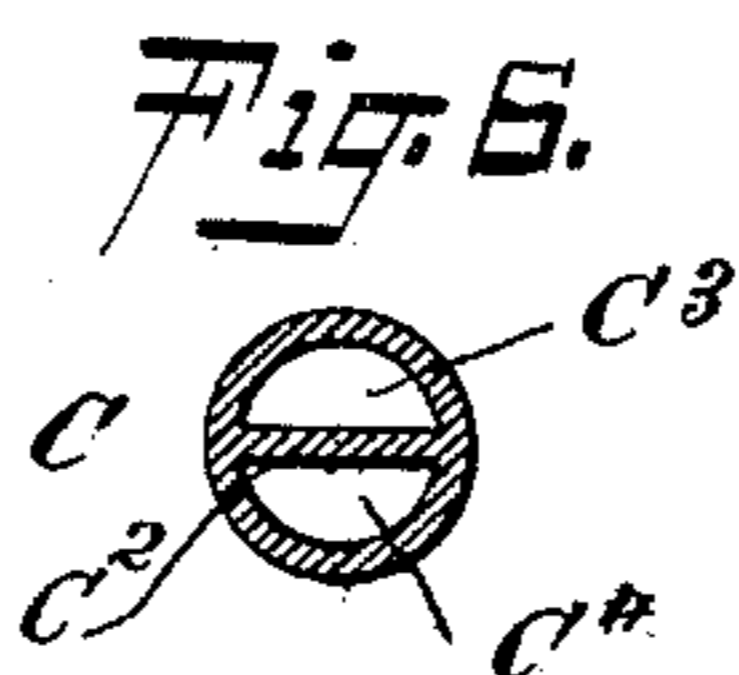
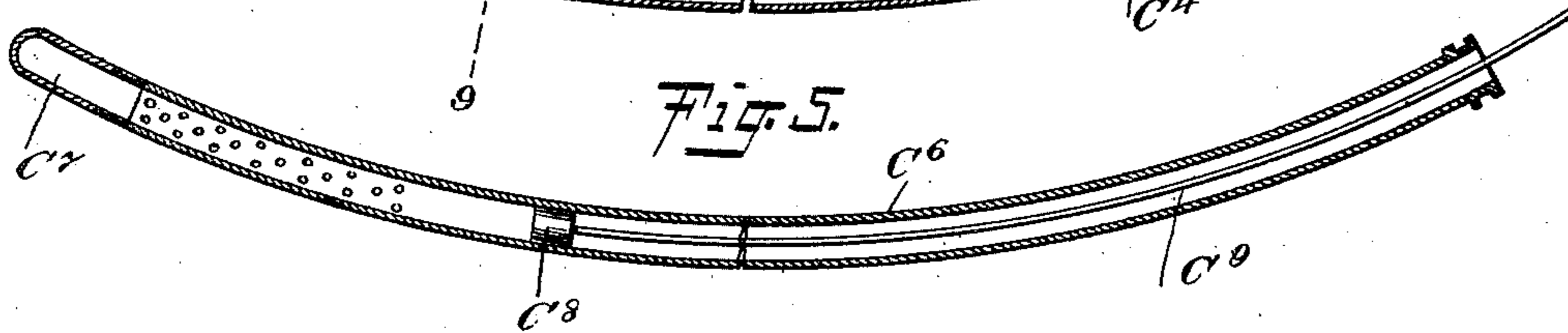
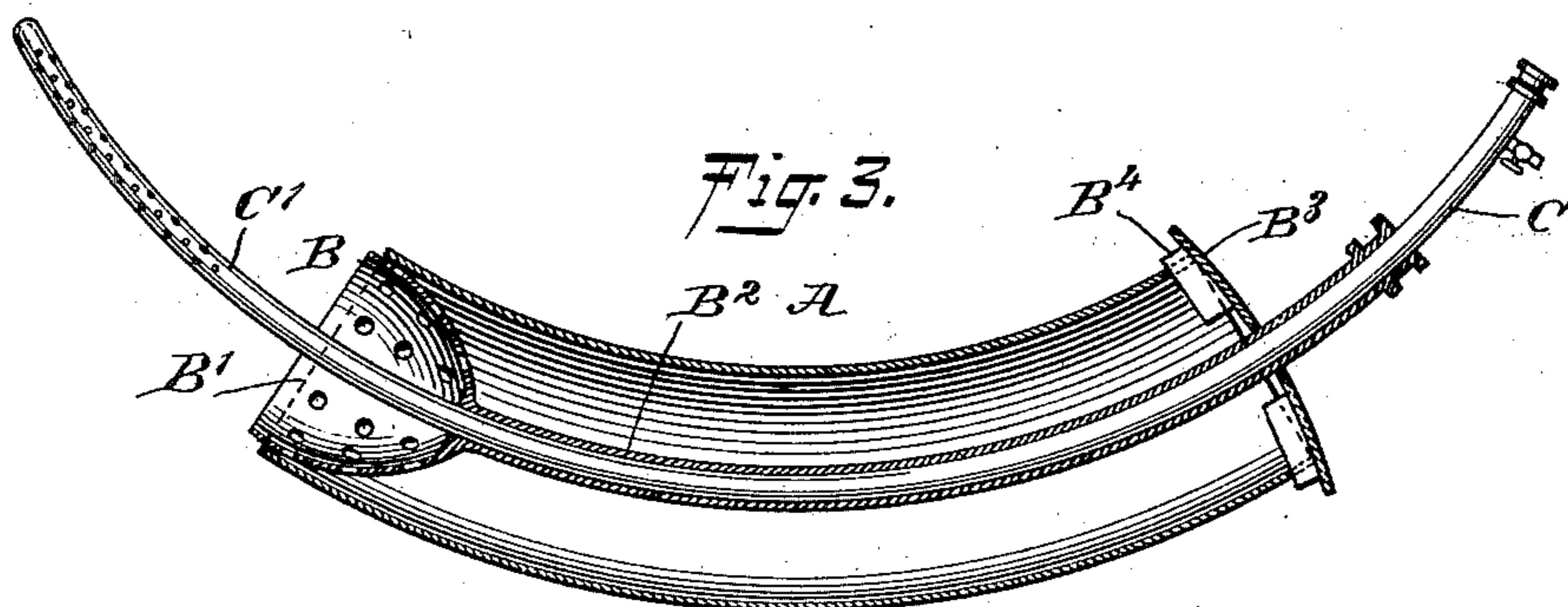
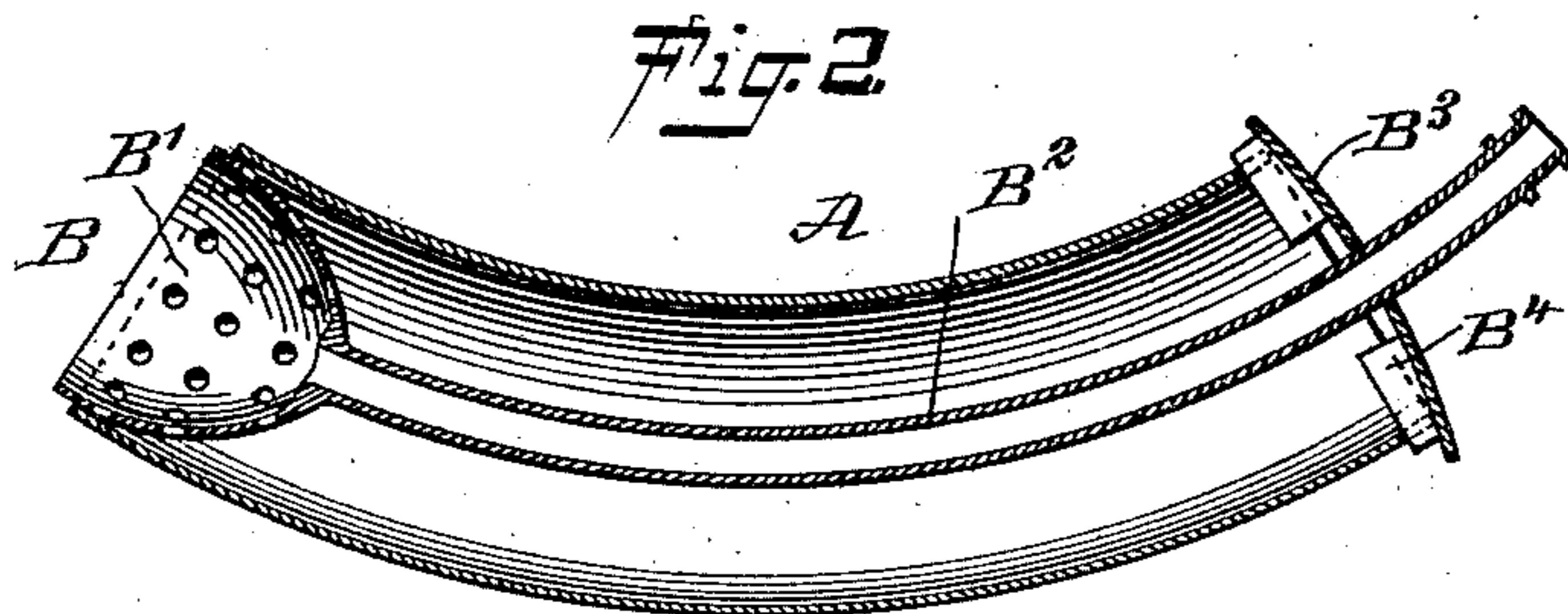
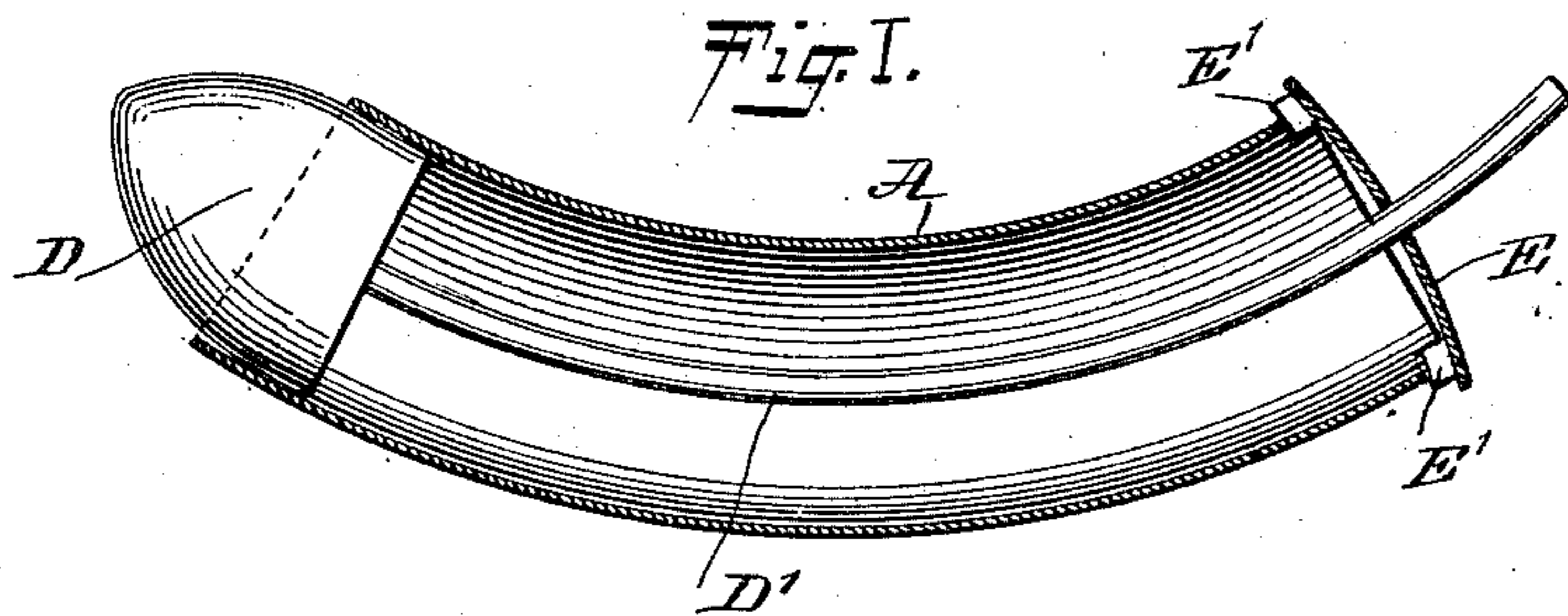
Patented May 6, 1902.

G. J. VAN SCHOTT.

APPLICATOR.

(Application filed Oct. 23, 1901.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

GERARD JOHN VAN SCHOTT, OF PASSAIC, NEW JERSEY.

APPLICATOR.

SPECIFICATION forming part of Letters Patent No. 699,594, dated May 6, 1902.

Application filed October 23, 1901. Serial No. 79,647. (No model.)

To all whom it may concern:

Be it known that I, GERARD JOHN VAN SCHOTT, a citizen of the United States, and a resident of Passaic, in the county of Passaic and State of New Jersey, have invented a new and Improved Applicator, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved applicator more especially designed to enable the patient without the aid of a physician to apply medications to the cervix uteri or to the cervical canal and without danger of injuring any of the interior parts of the vagina and womb.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the shell and the guide in position in the shell. Fig. 2 is a sectional side elevation of the shell and the cervix-uteri applicator in position thereon. Fig. 3 is a like view of the shell, the cervix-uteri applicator and the cervical-canal applicator in position. Fig. 4 is a similar view of the cervical-canal applicator. Fig. 5 is a like view of a modified form of the same, and Fig. 6 is an enlarged cross-section of the same on the line 9 9 of Fig. 4.

The instrument consists, essentially, of a segmental tubular shell A for insertion in the vagina, and into the said shell is adapted to be inserted an applicator B for carrying medicated substances to the cervix uteri, the said applicator also serving as a guide for a segmental tubular follower or applicator C, adapted to pass into the cervical canal for applying medicated liquids, vaseline, cocoa-butter, or other substances to the inner wall of the uterus.

In order to properly guide the shell A into position in the vagina, I provide a head D of cone shape and secured at one end of a segmental rod D', carrying a cap E, having lugs E' for engagement with recesses A' in the outer end of the shell A to hold the head in proper position on the forward end of the

shell, as plainly illustrated in Fig. 1, it being understood that the head D fits loosely in the forward end of the shell and projects therefrom in axial alinement with the shell to properly guide the shell into position in the vagina without danger of the forward edge of the shell injuring the wall of the vagina. As soon as the shell A is in position the operator pulls on the outer end of the rod D' to disengage the cap E and to withdraw the head D from the shell, so that the latter, however, remains in position in the vagina. By having the shell curved to the segmental shape of the vagina and by having the removable head D on the front end of the shell it is evident that the parts can be readily inserted into the vagina by the patient without the aid of a physician.

The applicator B consists of a perforated cup B', the base diameter of which corresponds, approximately, to the inner diameter of the shell to allow of pushing the cup B' through the shell to the inner end thereof, as indicated in Figs. 2 and 3. The apex end of the cup B' is secured to a segmental tube B², arranged to extend axially in the shell, and near the outer end of this tube B² is secured a cap B³, having lugs B⁴ for engaging the recesses A' of the shell A to hold the cap, the tube, and the cup in proper position in the shell. Now when it is desired to medicate the cervix uteri then the desired medicated substance is placed into the cup B', and the latter is then pushed through the shell A to finally engage the cervix uteri, which projects into the inner open end of the shell A. The medicated substance is thus brought into contact with the outer surface of the cervix uteri. In order to allow the operator to readily apply the medication, it is necessary to move the outer or handle end of the tube B² up and down to give a slight motion to the cup, the lugs B⁴ allowing such movement of the tube and cap B³ by sliding in the recesses A'. By the arrangement described the operator is also enabled to readily engage the cervix uteri by the cup when the latter is first moved into position at the inner end of the shell A. If it is desired to spray or wash the cervix uteri, it is only necessary to connect an elongated liquid-supply by a flexible tube with the outer end of the

tube B², so that the liquid flows under pressure through the tube B² into the cup B' and against the cervix uteri.

When it is desired to apply a tampon on the cervix uteri, then the tampon is placed into the cup B', and the latter is then pushed through the shell A until the cup B' engages the cervix uteri. The segmental follower or applicator C is now pushed into the tube B² to finally engage the tampon and press it in firm contact with the cervix uteri, and then the operator pulls on the outer end of the tube B² to gradually withdraw the cup B', while the follower C holds the tampon in position. Both the follower C and the cup B' can then be withdrawn from the shell. Medicated cotton can now be pushed through the shell A' by the follower C and packed against the tampon to hold the latter in place, and the shell A can then be gradually removed, leaving the tampon and packing-cotton in position.

The tubular follower C can also be pushed into the cervical canal to medicate or wash the same, and for this purpose the follower C has the forward end C' perforated, and a partition C² extends longitudinally in the tubular follower from near the outer end to near the inner end to form an inlet-channel C³ and an outflow-channel C⁴. (See Fig. 4.) A hose connection connects the outer end of the inlet-channel C³ with a liquid-supply under pressure, so that the liquid flows through the inlet-channel C³ to the perforated end C' to pass by way of the perforations in contact with the wall of the cervical canal. The return flow of the liquid is through the outflow-channel C⁴, the outer end of which is provided with a valve C⁵ for connection with a flexible discharge-pipe to carry off the outflowing liquid whenever the valve is opened.

In using the follower C the shell A is first placed in position in the vagina and then the applicator B is placed in position in the shell, after which the follower is pushed into the tube B², the inner perforated end C' of the follower C readily entering the cervical canal, as the mouth of the womb is contained within the cup B'. It is understood that the liquid passing through the perforations comes into contact with the wall of the cervical canal, and thus medicates the same.

When it is desired to apply medicated vaseline, cocoa-butter, or other non-fluid or semi-fluid substances, I employ a follower C⁶. (Shown in detail in Fig. 5.) In this follower the partition is omitted, and the perforated end is provided with a removable cap C⁷ for conveniently filling the perforated end with the medicated substance. A plunger or pusher C⁸ is mounted to slide in the follower C⁶ to force the medicated substance into the perforations and in contact with the wall of the cervical canal. The plunger C⁸ is provided with a plunger-rod C⁹ under the control of the operator to force the plunger inward in

the follower and press the medicated substance into the perforations and the cervical canal.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. An instrument of the character described, comprising a curved tubular shell, an applicator for insertion in the shell, said applicator comprising a perforated cup, a curved tubular stem extending from the cup, and a cap secured to the stem and engaging the shell to close the end thereof, and a curved tubular follower having a perforated end and adapted to be inserted in said applicator, as set forth.

2. An applicator, comprising a cup, a segmental tube carrying the cup, and a segmental follower for insertion into the tube to pass with its forward end into the said cup, as set forth.

3. An applicator, comprising a perforated cup, a segmental tube carrying the cup, and a segmental tubular follower for insertion in the said tube and having its inner end perforated, and through which a medicament is adapted to be forced by pressure, as set forth.

4. An applicator, comprising a cup for engaging the cervix uteri, a segmental tube carrying the cup and opening into the same at the bottom thereof, and a segmental tubular follower for insertion into the said tube and cup and having its forward end perforated, as set forth.

5. An applicator, comprising a cup for engaging the cervix uteri, a segmental tube carrying the cup and opening into the same at the bottom thereof, and a segmental tubular follower for insertion into the said tube and cup and having its forward end perforated, the follower having a longitudinal inlet-channel and a longitudinal outlet-channel, as set forth.

6. An applicator, comprising a segmental shell for insertion in the vagina and formed at its outer end with recesses, a perforated cup for insertion in the said shell to engage the cervix uteri, a segmental tube carrying the said cup and opening into the bottom thereof, and a cap on the outer end of the said tube and having lugs for slidingly engaging the said shell-recesses, as set forth.

7. In an applicator, a segmental shell, a perforated cup, a segmental tube carrying the cup and opening into the same at the bottom thereof, and a cap on the outer end of the tube and having a locking engagement with the shell, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GERARD JOHN VAN SCHOTT.

Witnesses:

JAS. A. SULLIVAN,
EMMA WALSH.