No. 666,198. Patented Jan. 15, 1901.

H. KUTH.

ACOUSTIC APPARATUS.

(Application filed Apr. 9, 1900.)

(No Model.)

Fig. 1.

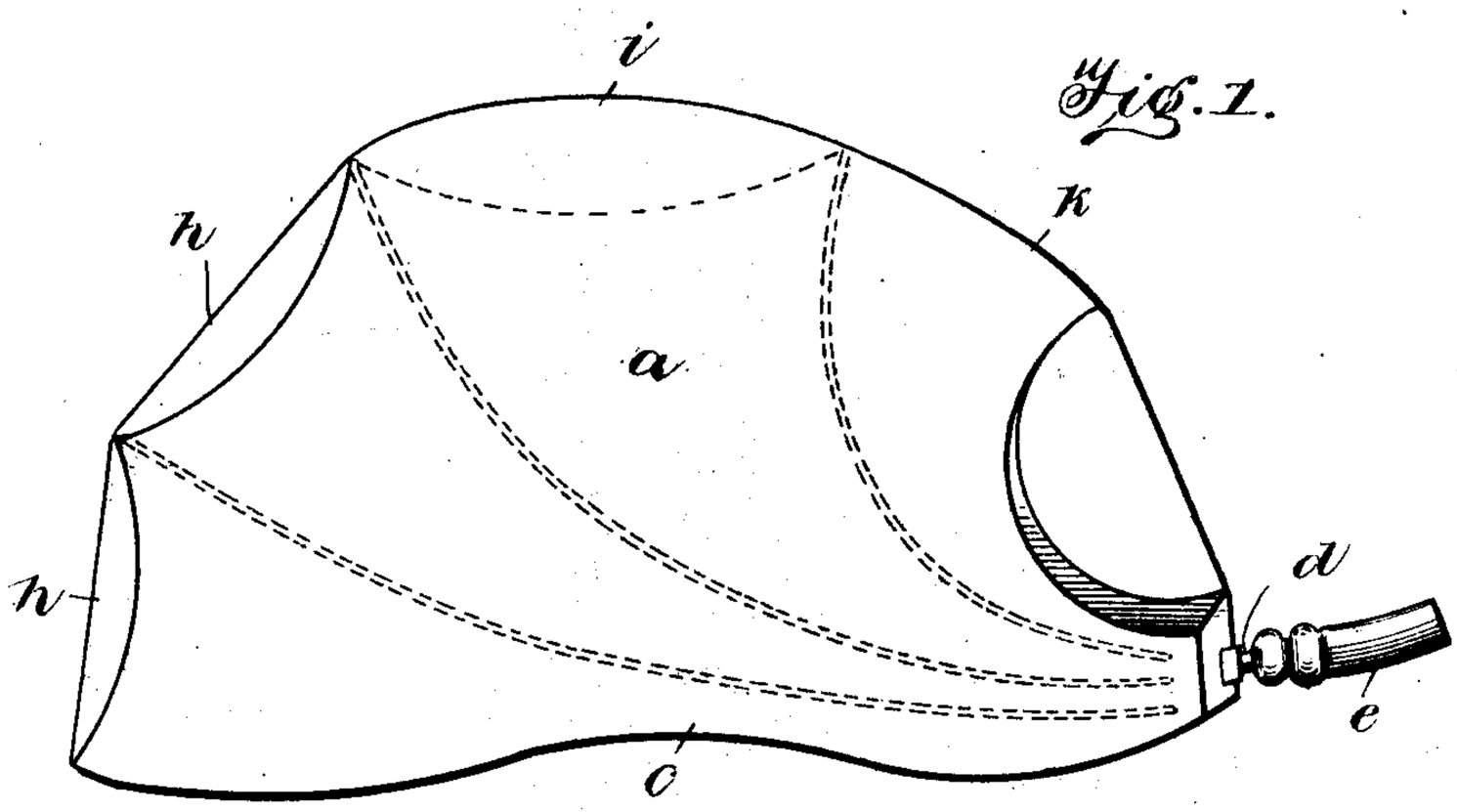


Fig. 2.

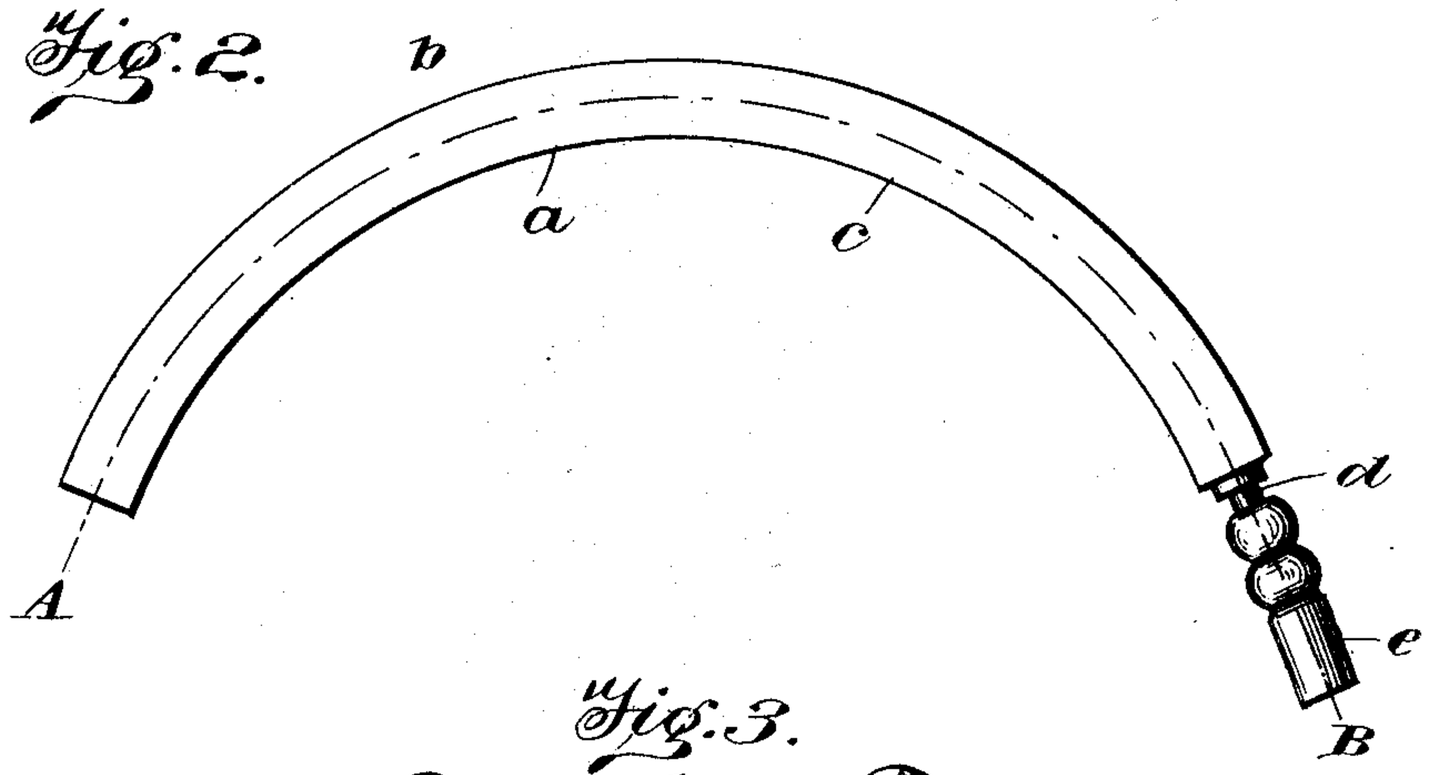
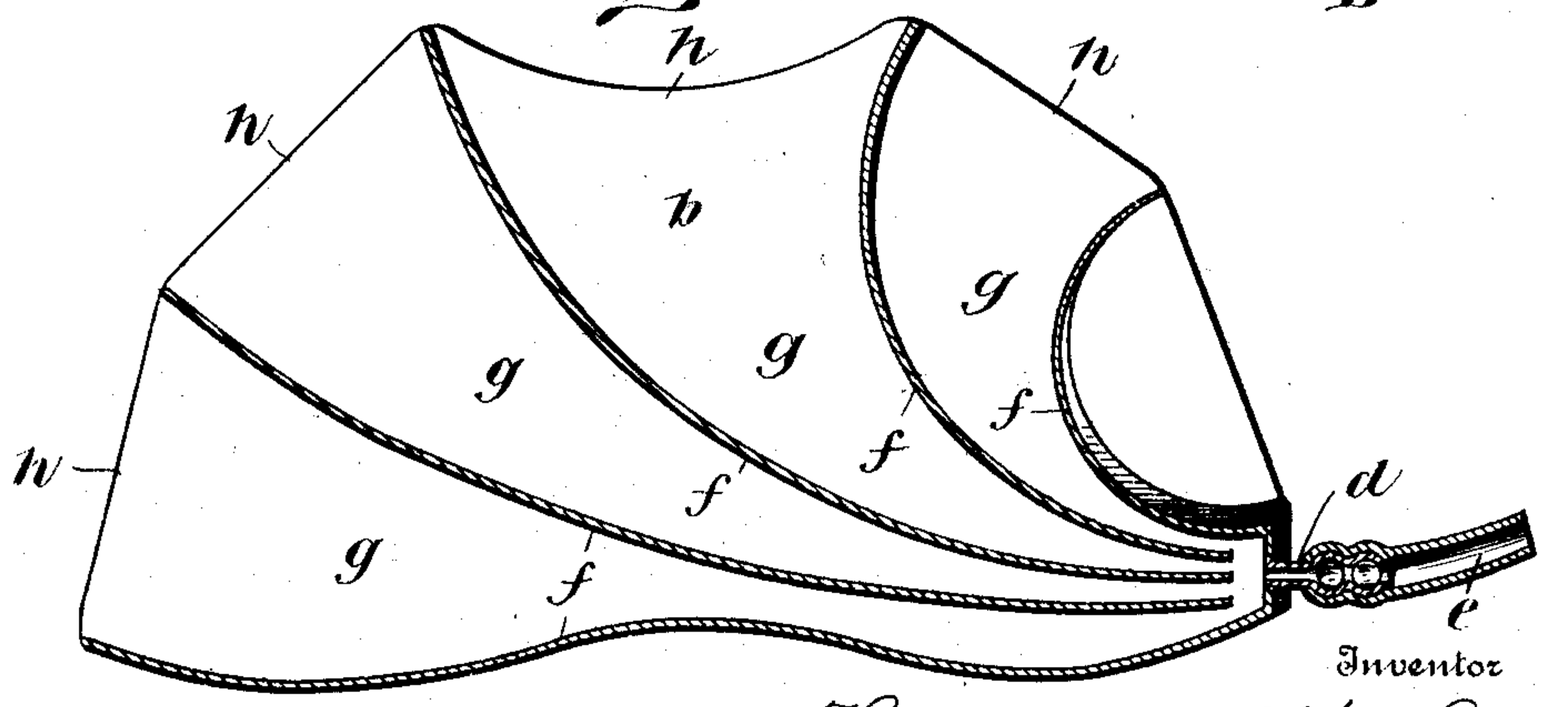


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

HERMANN KUTH, OF BERLIN, GERMANY.

ACOUSTIC APPARATUS.

SPECIFICATION forming part of Letters Patent No. 666,198, dated January 15, 1901.

Application filed April 9, 1900. Serial No. 12,185. (No model.)

To all whom it may concern:

Be it known that I, HERMANN KUTH, manufacturer, residing at Berlin, in the Empire of Germany, have invented Improvements in Acoustic Apparatus for Conducting Sound to the Ear, of which the following is a specification.

The acoustic apparatus according to this invention is so contrived that it can be worn on the back of the head without falling out and the sound be intercepted on both sides, as well as at the front and the back, and conveyed to the ear.

The invention is illustrated in the accompanying drawings.

Figure 1 is a front view; Fig. 2, an under side plan, and Fig. 3 a vertical circular section along the line A B in Fig. 2.

The apparatus consists of a smooth arched frame with a front *a*, back *b*, and narrow bottom plate *c*. The parts *a*, *b*, and *c* are so formed and bent that the frame fits as nearly as possible to the back of the head. At the same time a small junction-tube *d* is attached, onto which the flexible auricular tube *e*, which leads to the ear, is pushed. The interior of the frame is divided by means of partitions *f* into several sectors or funnel-like sounding-chambers *g*. The partitions *f* extend nearly to the junction-tube *d*, so that all the chambers *g* are separated as much as possible from one another, but are in connection with the junction-tube and the auricular tube *e*. The sounding-chambers *g* open out above or at the side. The side sounding-chambers serve for intercepting the sound-waves coming from the front and the side, while one or more central sounding-chambers receive the sound-waves coming from the back. In order that the sound may be better intercepted, one of the two upper edges of the sounding-chambers *g* is allowed to project somewhat more than the other. The side sounding-chambers have an extra high back *h*, which intercepts the sound-waves coming from the front and the side and conducts them farther. On the other hand the central sounding-chambers have an extra high front *i*, which intercepts the sound-waves coming from behind and carries them onward. The number of sounding-chambers is optional. In the example shown in the drawings four are arranged. The number may, however, be larger or smaller. In certain circumstances a single sounding-chamber is sufficient.

The apparatus is put on the back of the head in the manner of a wig and fastened thereto in a suitable manner. It may be made of the lightest possible material or of other material.

The back or side of the apparatus is suitably covered with hair in the style of a wig or painted so as to resemble hair.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

An ear-trumpet consisting of a curved auriculate body portion or frame conforming substantially to the shape of the back of the head and interiorly divided into a series of flaring sound passages or chambers *g*, separated from one another for substantially their entire length by partitions *f*, said chambers converging toward and uniting at a common point, a connecting-tube *d*, and a flexible auricular tube *e*, for the same, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HERMANN KUTH.

Witnesses:

HENRY HASPER,

WOLDEMAR HAUPT.