

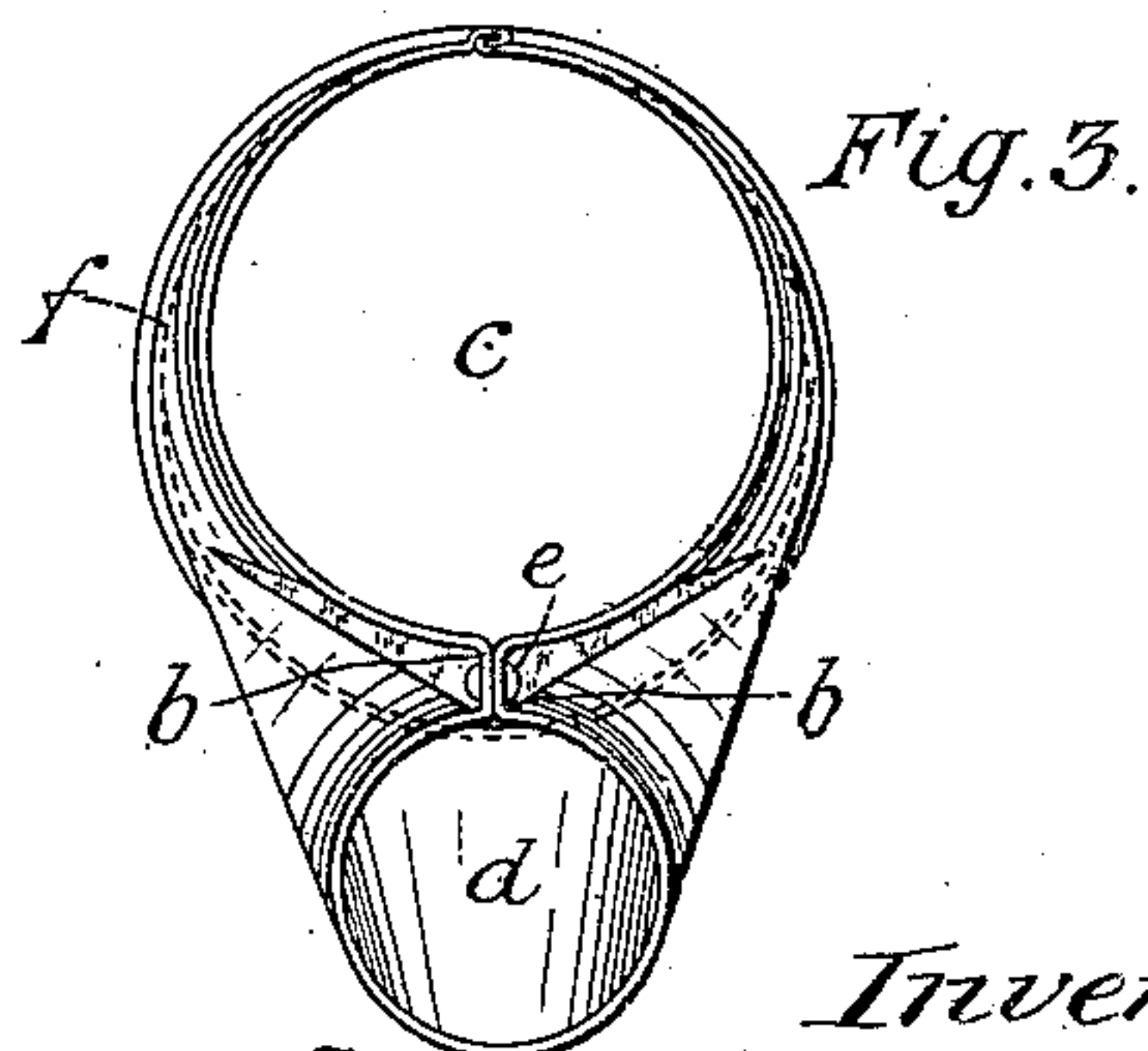
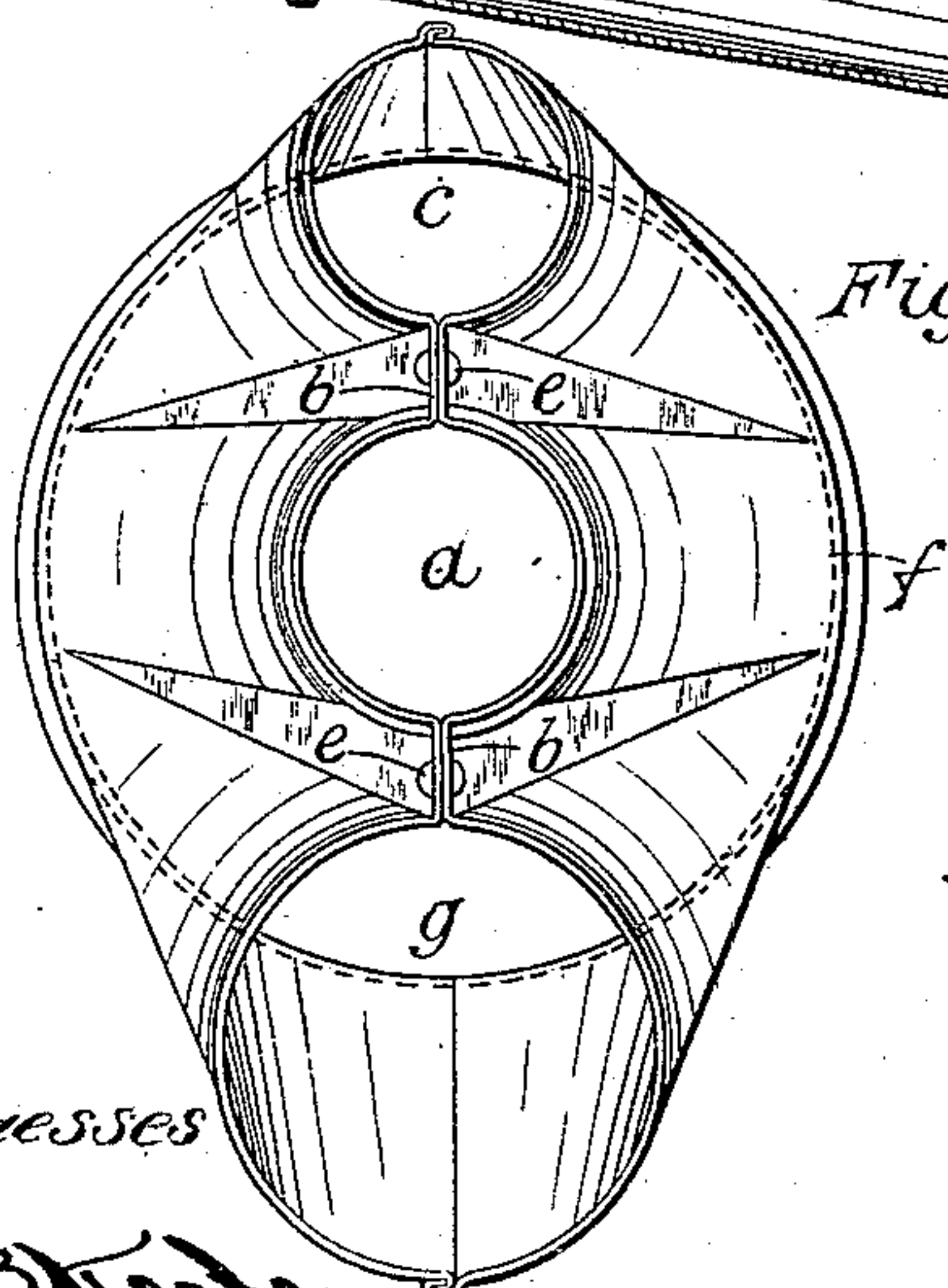
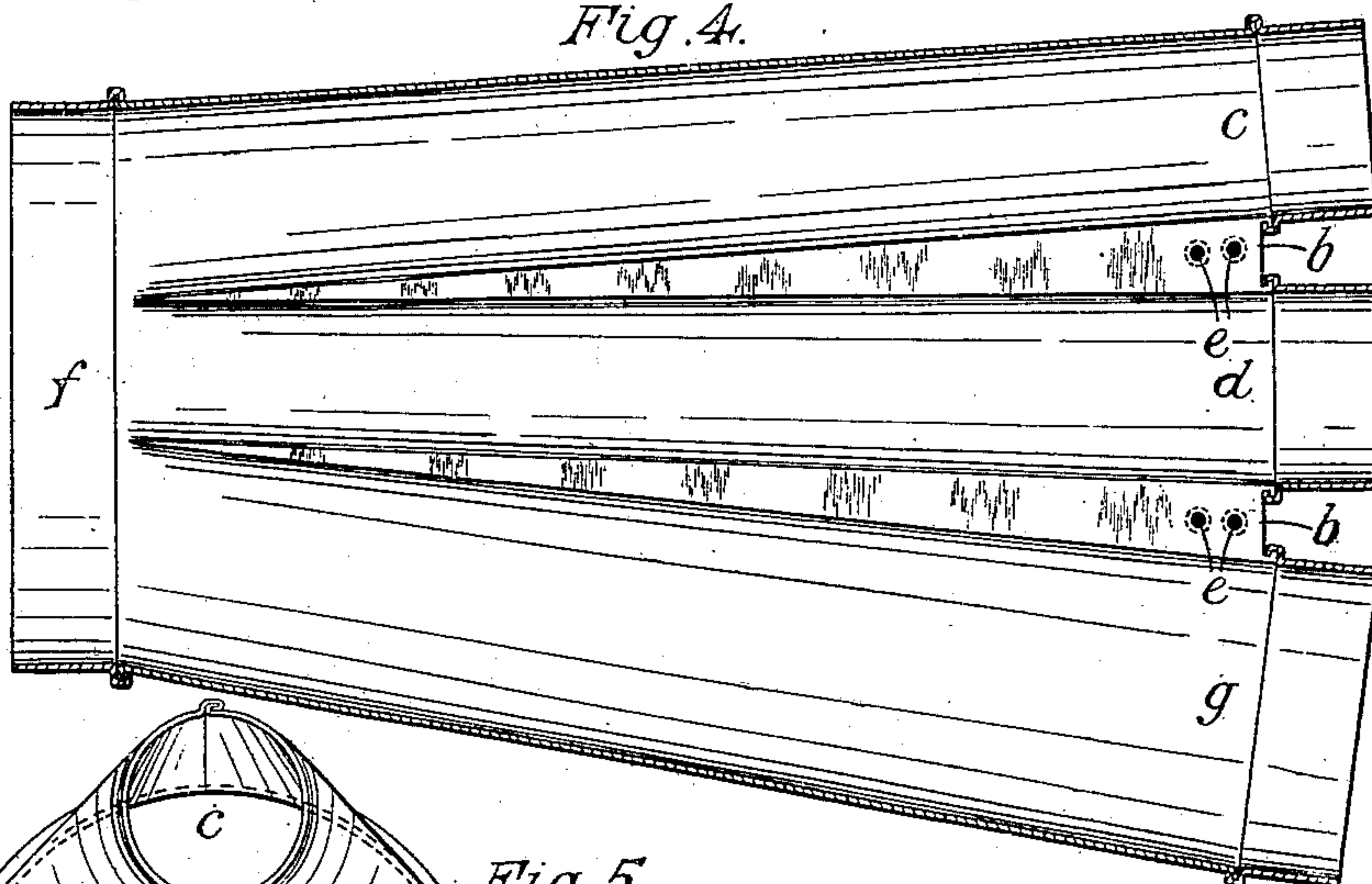
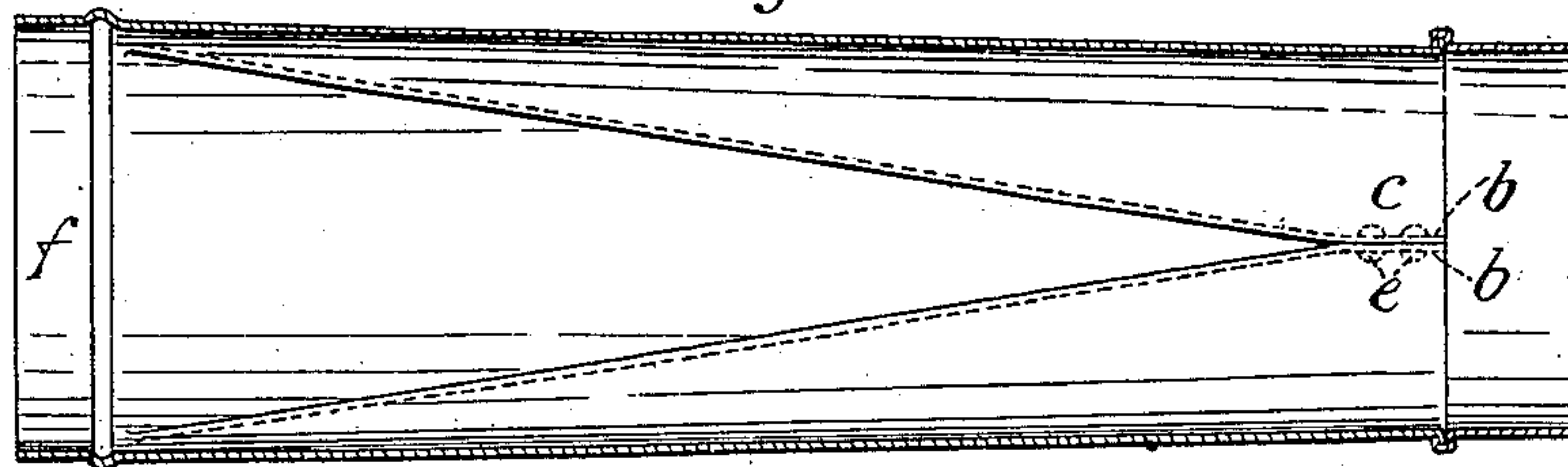
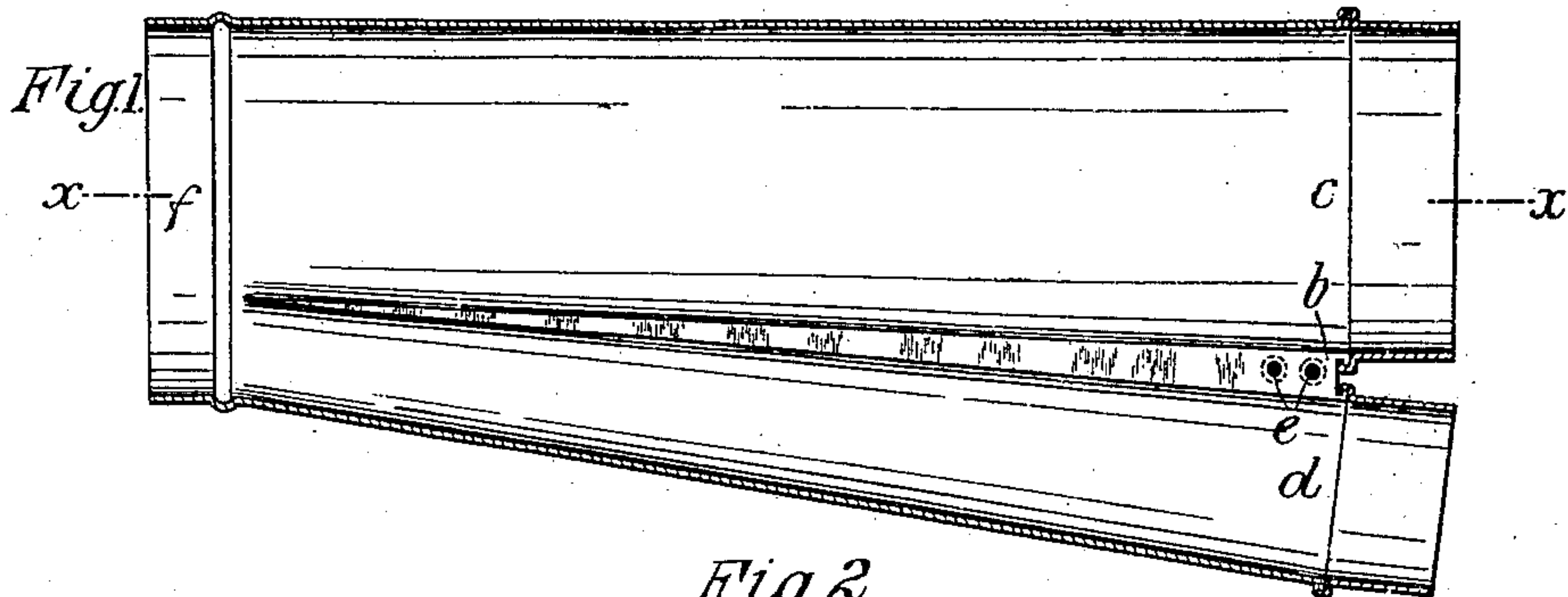
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PATENTED AUG. 6, 1907.

C. H. MOWER.

JUNCTION PIECE FOR BRANCHES OF AIR CONDUITS AND THE LIKE.

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Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES HUDSON MOWER, OF LONDON, ENGLAND.

JUNCTION-PIECE FOR BRANCHES OF AIR-CONDUITS AND THE LIKE.

No. 862,649.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed February 16, 1906. Serial No. 301,520.

To all whom it may concern:

Be it known that I, CHARLES HUDSON MOWER, a citizen of the United States of America, residing at London, England, have invented a certain new and useful Improved Junction-Piece for Branches of Air-Conduits and the Like, of which the following is a specification.

This invention relates to an improved sheet metal junction for branches of air conduits and the like.

10 The said improved junction or branch piece is made from sheet metal in a very simple and economical manner, and provides a very suitable junction for uniting two or more converging branch pipes to a single pipe or conduit.

15 The construction is especially adapted for conduits conveying air or gases either alone or laden with dust or other material, and it avoids the formation of eddies or violent disturbances of the stream lines, and reduces frictional losses to a minimum.

20 In the accompanying drawing I have shown how my said invention may be conveniently and advantageously carried into practice.

Figure 1 is a longitudinal central section of my improved junction or branch piece in which two branches 25 join to form one conduit. Fig. 2 is a longitudinal section on the line x, x , Fig. 1. Fig. 3 is an end view thereof. Fig. 4 is a longitudinal central section of my improved junction piece in which three branches join to form one conduit, and Fig. 5 is an end view of the 30 same.

In carrying out my invention, according to one method, a sheet of suitable material is bent or folded to form a substantially conical pipe by uniting the edges along a longitudinal seam. The larger end of this conical pipe is then distorted by drawing together the parts 35 b, b thereof, and so forming two branches c, d united by a short web formed by the parts b, b which are here shown secured together by rivets e . Soldering or brazing may however be employed to unite these parts. 40 A junction piece is thus formed from a sheet of suitable material, said junction piece having two branches c, d converging to a single conduit f so shaped as not to cause any abrupt change of direction of fluid or material flowing therein. Also by this construction two 45 branches are formed as one structure without the necessity of attaching the branches by cutting holes in one or both of them and forming flanges to permit of joining the branches by riveting, soldering or the like. Moreover, the present improved construction facilitates the attachment of branches at very small angles, 50 to prevent frictional losses at the meeting of the converging streams of air or gases.

My invention may be applied to cases wherein three

or more branches converge into a single conduit, as illustrated in Figs. 4 and 5, which show sheet material 55 bent or folded to form three branches c, d, g , converging to a single conduit f . The dimensions of the junction piece may be such that the cross-sectional area of the single conduit at one end may be equal to the combined cross-sectional areas of the branches at the other 60 end.

It is obvious that in the manufacture of these junctions the conical pipe need not be completely formed and then distorted as above described as other methods may be adopted, for example, the separate 65 branches may be formed successively from a sheet of metal. Thus, in the example shown in Fig. 1, the single sheet of material may be bent or folded on a suitable mandrel to completely form the branch d and to partly form the branch c . After securing together the 70 parts b, b the said mandrel can be withdrawn and a second mandrel brought into use for the shaping of the branch c . Then by forming the longitudinal seam, the complete junction piece is produced. Other modes of manufacture may also be adopted, my invention 75 consisting in providing a junction piece made from sheet metal in which there are two or more branches at one end merging into a single branch at the other, without involving the cutting of a hole in the metal as is usually done for the connection of the branches. 80

In place of the substantially cylindrical branches herein described, my improved junction piece may be formed in a suitable manner to permit their employment with conduits of rectangular or other cross-section. 85

When making very large pipes two or more sheets might have to be united by seaming or riveting, but the method of constructing the branches would be the same as above described.

What I claim is:—

1. A junction piece for branches of air conduits and the like, formed from sheet metal by folding the same to produce a multiple number of branches at one end converging into a single branch at the other end, and without cutting holes in the metal for the branch connections. 90 95

2. A junction piece for branches of air conduits and the like, said junction piece being formed of sheet material and consisting of a conical tube which has continuous portions of its wall drawn together at opposite places so as to form convergent branch apertures on each side of said 100 drawn together parts, and means for fastening such drawn together parts of the wall to each other.

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

CHARLES HUDSON MOWER.

Witnesses:

W. J. BASSETT,

HERBERT A. BEESTON.