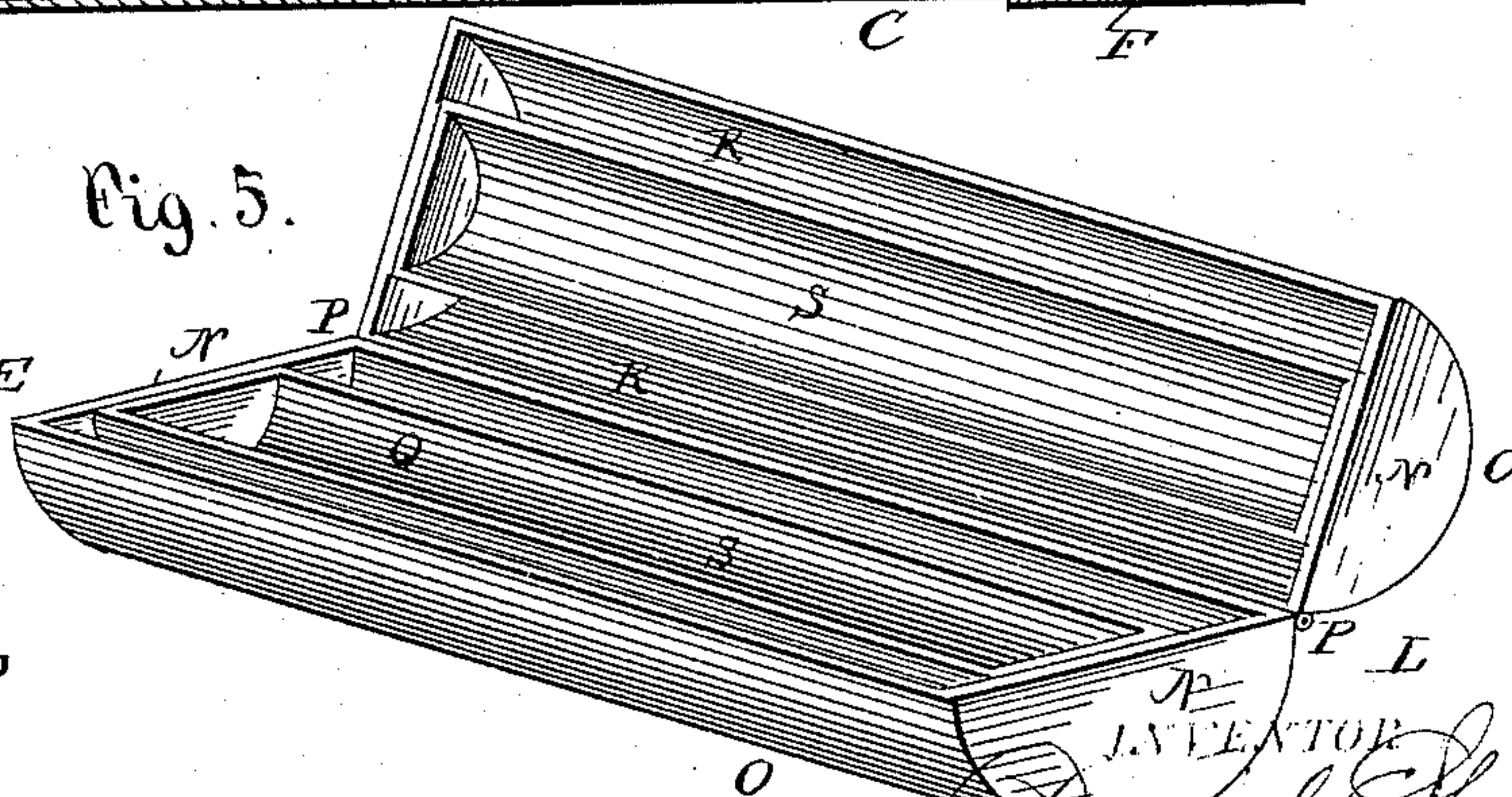
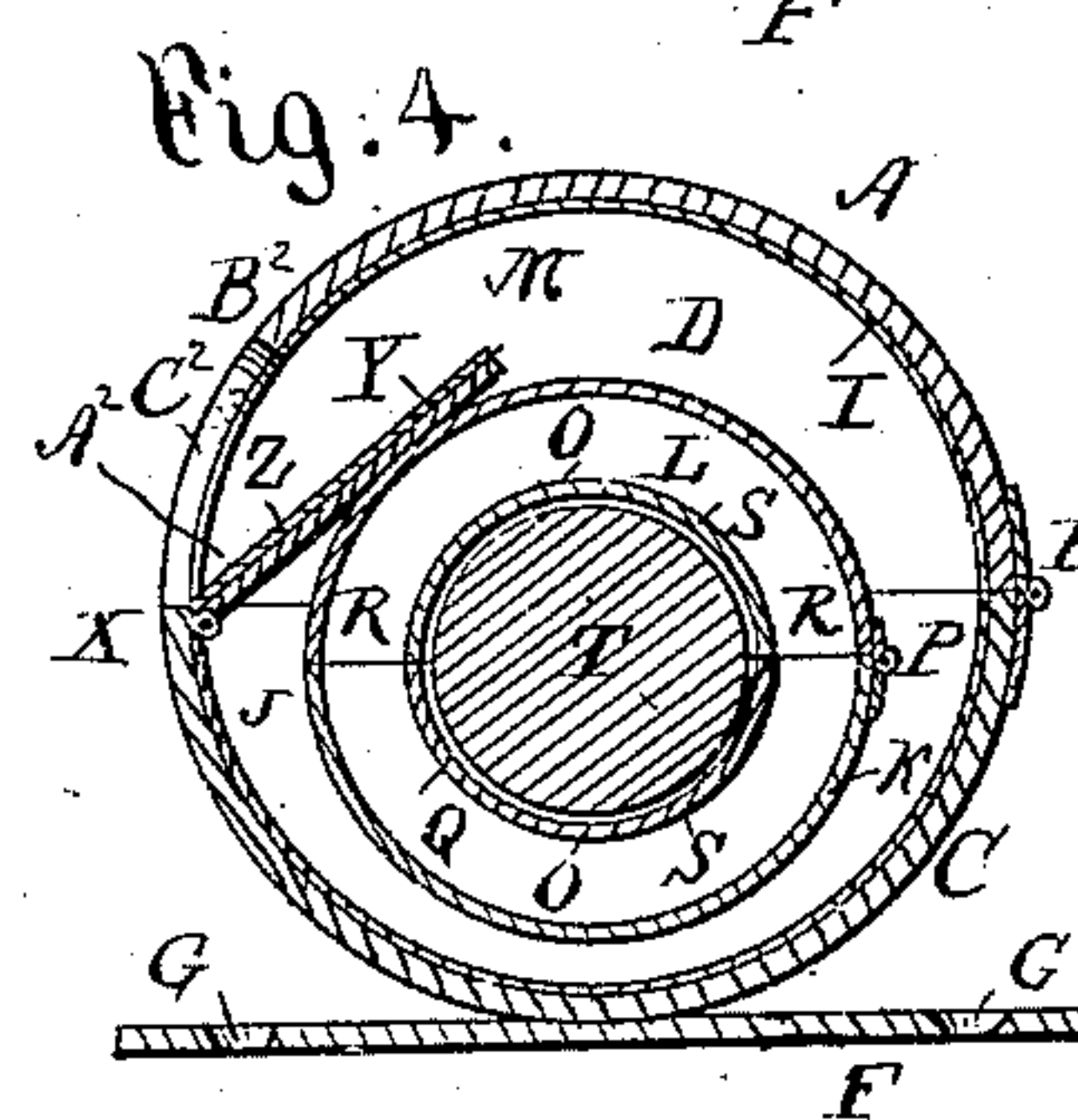
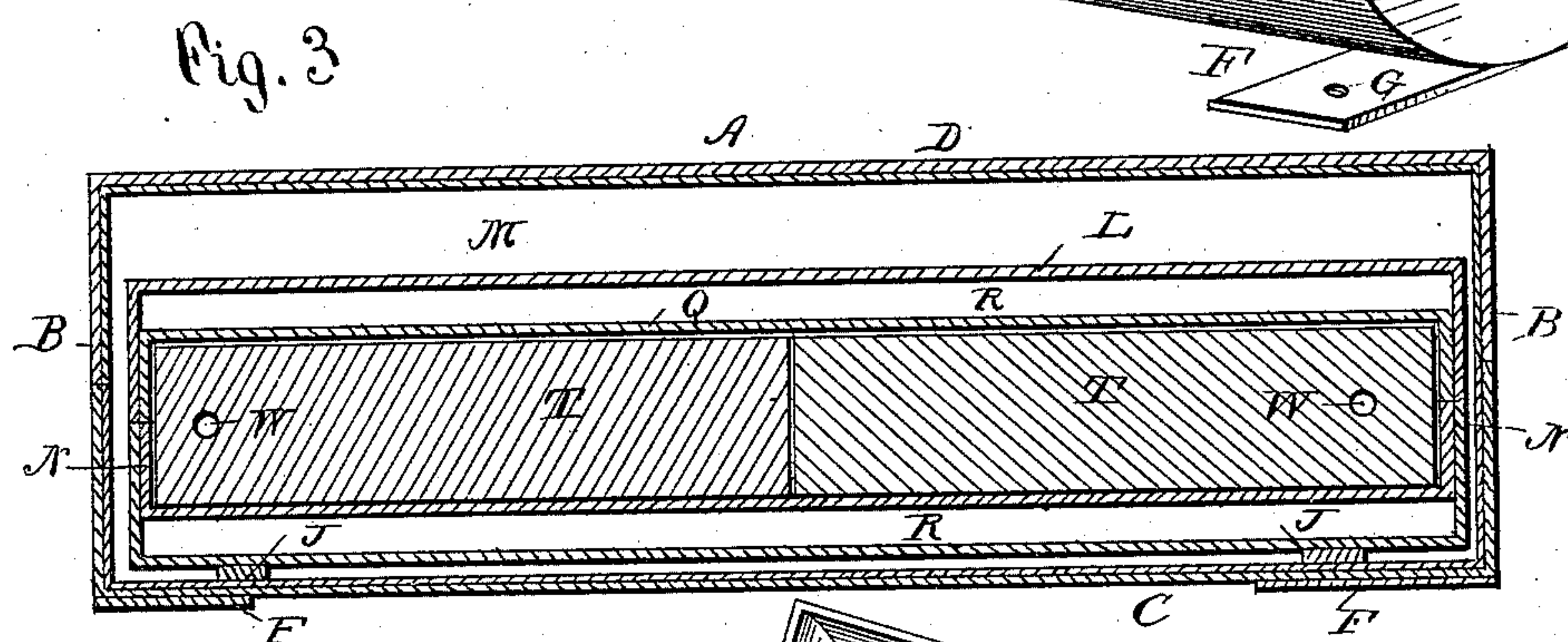
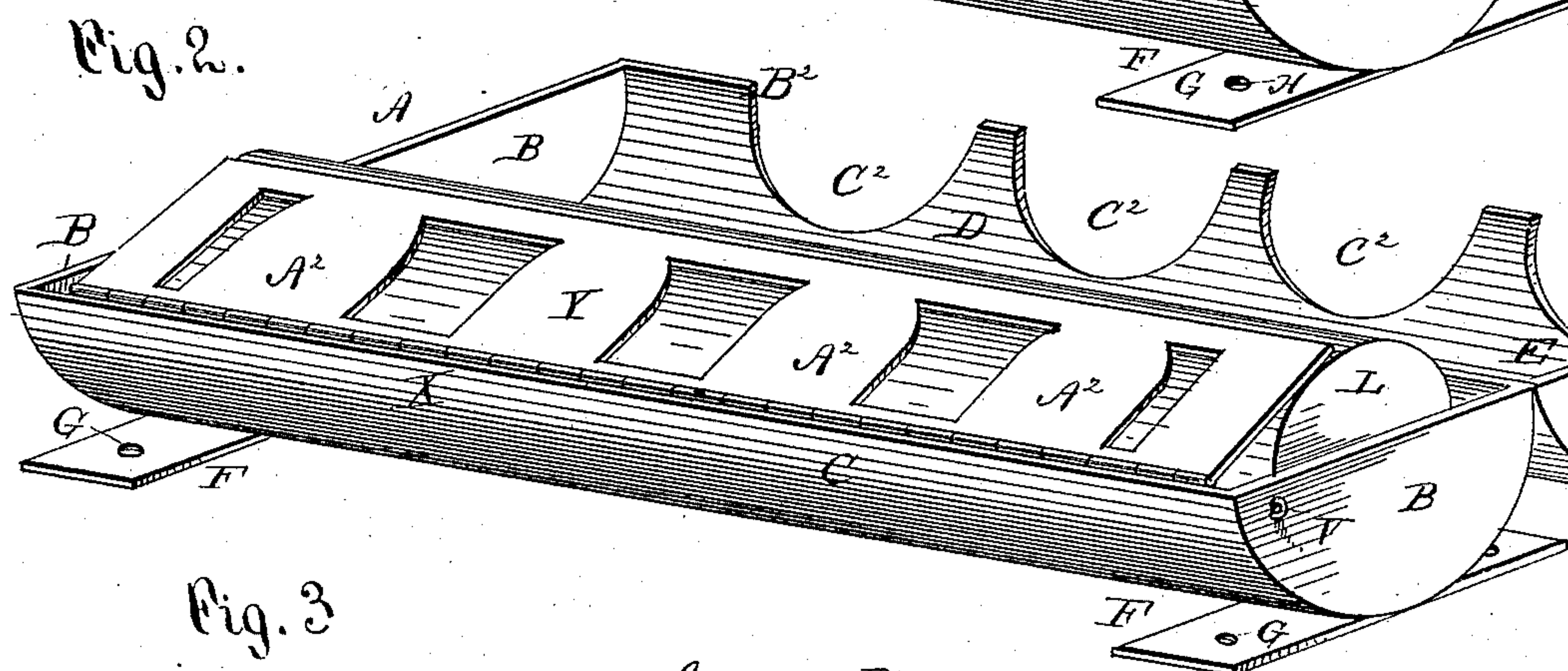
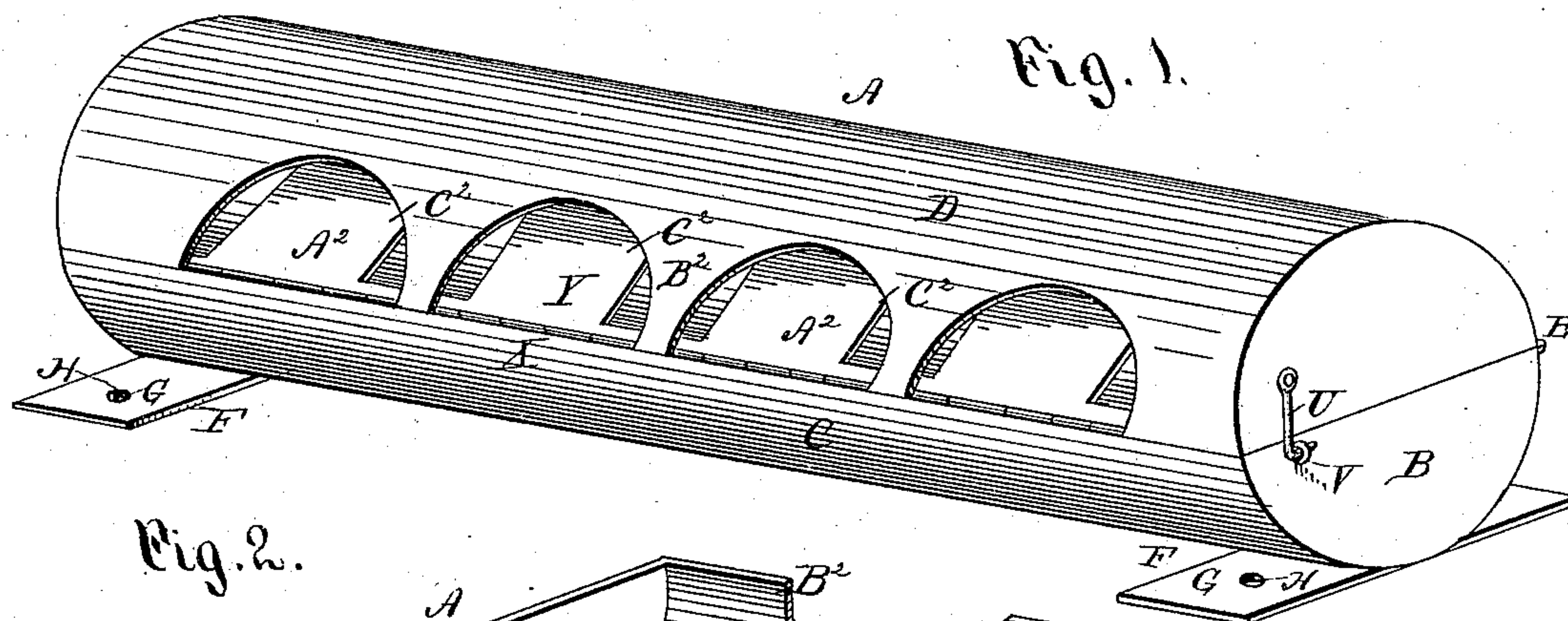


(No Model.)

D. SHIRLEY.
FOOT WARMER.

No. 287,061.

Patented Oct. 23, 1883.



WITNESSES

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UNITED STATES PATENT OFFICE.

DANIEL SHIRLEY, OF NEW MARKET, VIRGINIA.

FOOT-WARMER.

SPECIFICATION forming part of Letters Patent No. 287,061, dated October 23, 1883.

Application filed April 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, DANIEL SHIRLEY, a citizen of the United States, residing at New Market, in the county of Shenandoah and State of Virginia, have invented a new and useful Foot-Warmer, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to foot-warmers; and its object is to provide a device possessing superior advantages in point of simplicity, inexpensiveness, durability, and general efficiency.

In the drawings, Figure 1 is a perspective view of my improved foot-warmer. Fig. 2 is a perspective view of the same with the top half of the outer cylinder thrown over on its hinges. Fig. 3 is a vertical longitudinal sectional view of the warmer. Fig. 4 is a vertical transverse sectional view. Fig. 5 is a perspective view of the inner cylindrical chamber removed and thrown open.

Referring to the drawings, A designates a cylindrical outer chamber, which is preferably formed of sheet metal, and has its ends closed by disks B B. This cylinder A is formed of two half-sections, C and D, respectively, which are hinged together at their rear edges, E, as shown. At the ends of the under section, C, project lateral horizontal plates or flanges F F, in which are provided perforations G, to receive screws H, by which the device can be secured across the bottom of a sleigh, vehicle, or at any other desired place. The interior of the cylinder A is lined with cloth or other suitable non-conducting packing I, and the bottom section, C, is provided with partitions J J near its ends, in the top edge of which are provided curved recesses K, to receive an inside removable cylindrical chamber, L, and support the same. This interior cylinder, L, is preferably formed of sheet metal, and is of a lesser diameter than the outer cylinder, A, so that an air-space is left between the two cylinders, as indicated at M. The cylinder L is closed at its ends N N, and is formed of two half-sections, O O, that are hinged together at their edges P P, as shown. Secured inside the cylinder L is another longitudinal cylinder, Q, of a lesser diameter than the cylinder L, so that a hot-air space, R, is formed between the two cylinders. This cylinder Q is of

course formed of two half-sections, S S, each secured in one of the half-sections O of the cylinder L.

In practice two cylindrical metallic bars or castings, T T, each about half as long as the cylinder Q, are heated to the desired degree in a fire, and are then placed in the said cylinder Q. The cylinder L is then closed and placed in the supporting brackets or partitions J J in the cylinder A, when the latter is closed and secured by hooks U and eyes V at its ends, or by any other suitable fastening device. The bars T T will retain their heat for a considerable time, and will gradually radiate the same through the cylinders to keep the feet warm and comfortable. It will be observed that the outside cylinder, L, is supported by the brackets in the cylinder A nearer the bottom than the top of the latter, so that the heated air readily ascends, and no space is lost at the bottom of the device. The bars T T are formed with perforations or holes W at their ends, in which hook-rods can be engaged to enable the convenient removal of the bars from the fire and to facilitate the placing of the same in position in the cylinder Q.

To the front edge, X, of the bottom section, C, of the outside cylinder, A, is hinged a longitudinal strip or plate, Y, constructed of any suitable material, and having its top faced with cloth or like material, Z. This strip Y comprises the desired number of sections, A², corresponding to the foot and forming a rest for the same. In practice the strip Y is rested on the cylinder L, so that its portions A² will come partly over the said cylinder. The top section, D, of the cylinder A is then brought over, and its front edge, B², is provided with a number of curved recesses, C², that will come over the sections A², the foot being inserted through these cut away portions C² and rested on the sections A².

When it is desired to use the foot-warmer in a bed, the cylinder L is removed from the outside cylinder A, and is wrapped up in a cloth or the like, when it can be placed in the desired position.

The operation and advantages of my invention are obvious. It is very simple and inexpensive in construction, and can be used with superior convenience and facility. There is

no danger attending the use of this improved foot-warmer, from the fact that there is no fire used in the warmer.

I claim as my invention—

5 1. The combination, with the cylinder or chamber comprising two half-sections, and having a cylinder or chamber of a lesser diameter secured in its interior, so as to form a hot-air space between the two cylinders, the inner cylinder being divided into sections that are independently secured in the half-sections of the outer cylinder, of removable metallic bars arranged to be heated to the desired temperature and placed inside the said inner chamber or cylinder, as and for the purpose set forth.

15 2. The combination of an outside cylinder or chamber having closed ends, and comprising two half-sections hinged together, the bottom section being provided with supporting brackets or partitions, the interior cylinder of lesser diameter than the outside chamber and supported in the said brackets, this inner cylinder being composed of two half-sections hinged together, and each section carrying a section

of another inner cylinder of smaller diameter than the said interior cylinder, and the bars arranged to be heated and placed in the innermost cylinder, as and for the purpose set forth.

3. The combination of an outside cylinder or compartment comprising two half-sections, in the front edge of the top section of which are formed recesses or cut-away portions, an inside heat-radiating cylinder or chamber arranged in the bottom section of the outside cylinder, and a longitudinal strip or plate hinged to the front edge of the bottom section of the outside cylinder, and having foot-rests that correspond to the said recesses or cut-away portions, the said longitudinal strip being arranged to rest on the inside cylinder, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DANIEL SHIRLEY.

Witnesses:

J. N. SHULER,

C. W. ROSERBERGER.