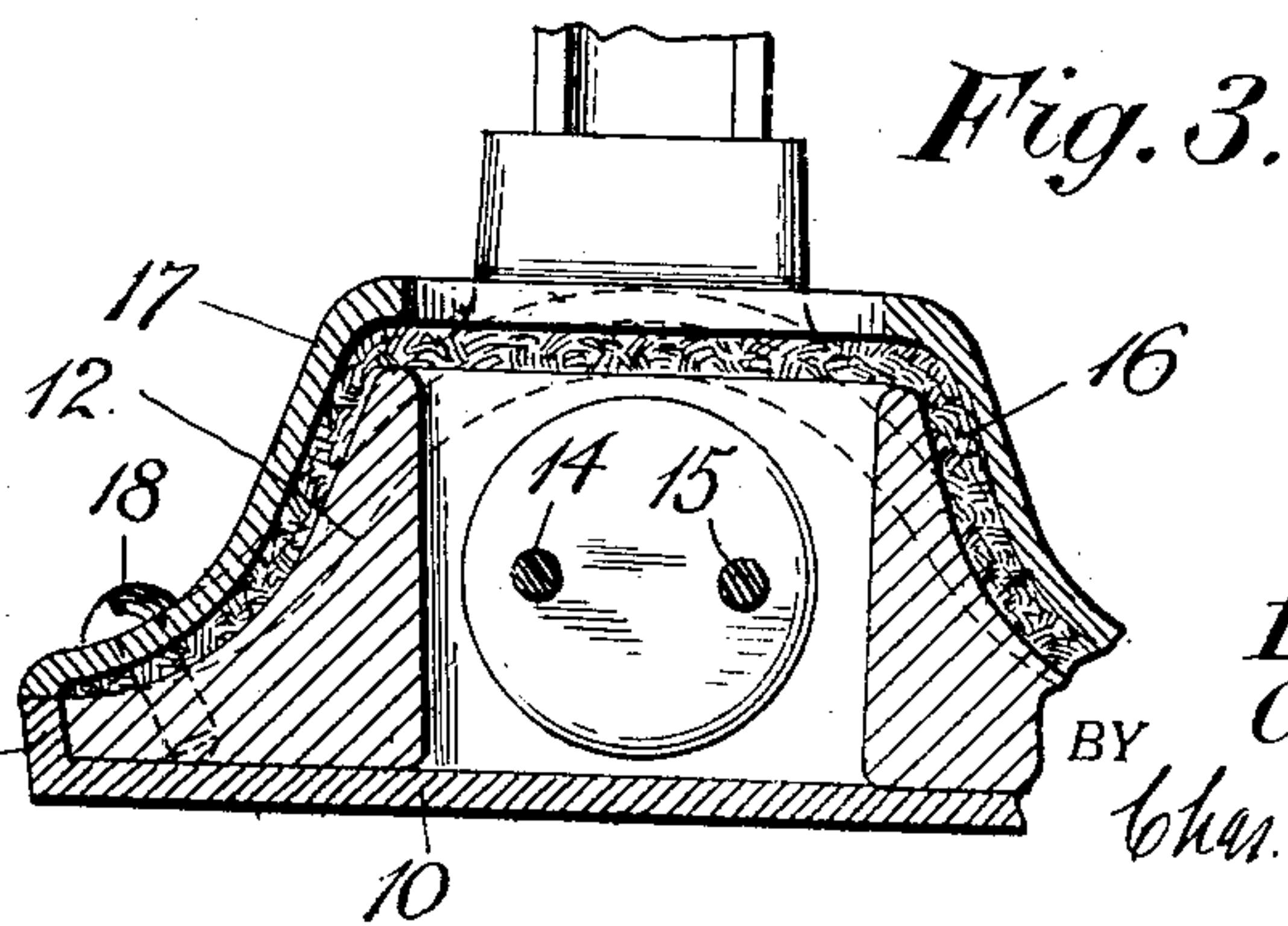
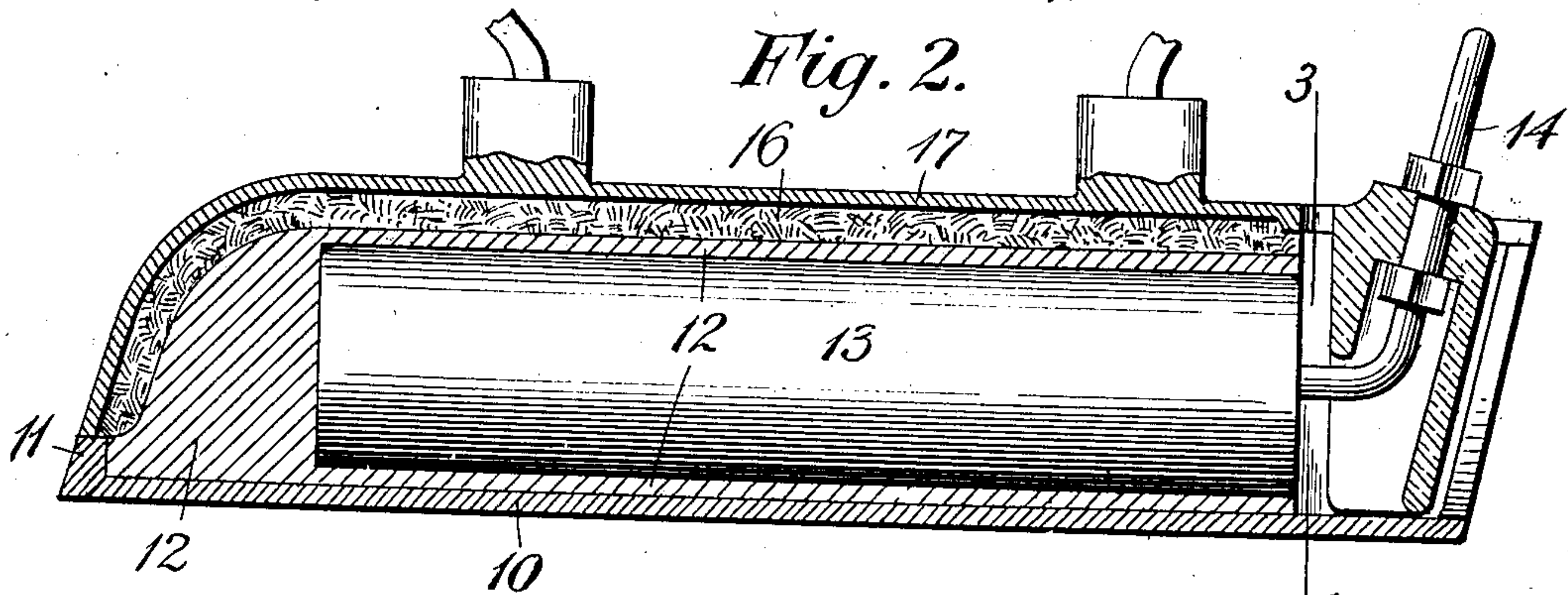
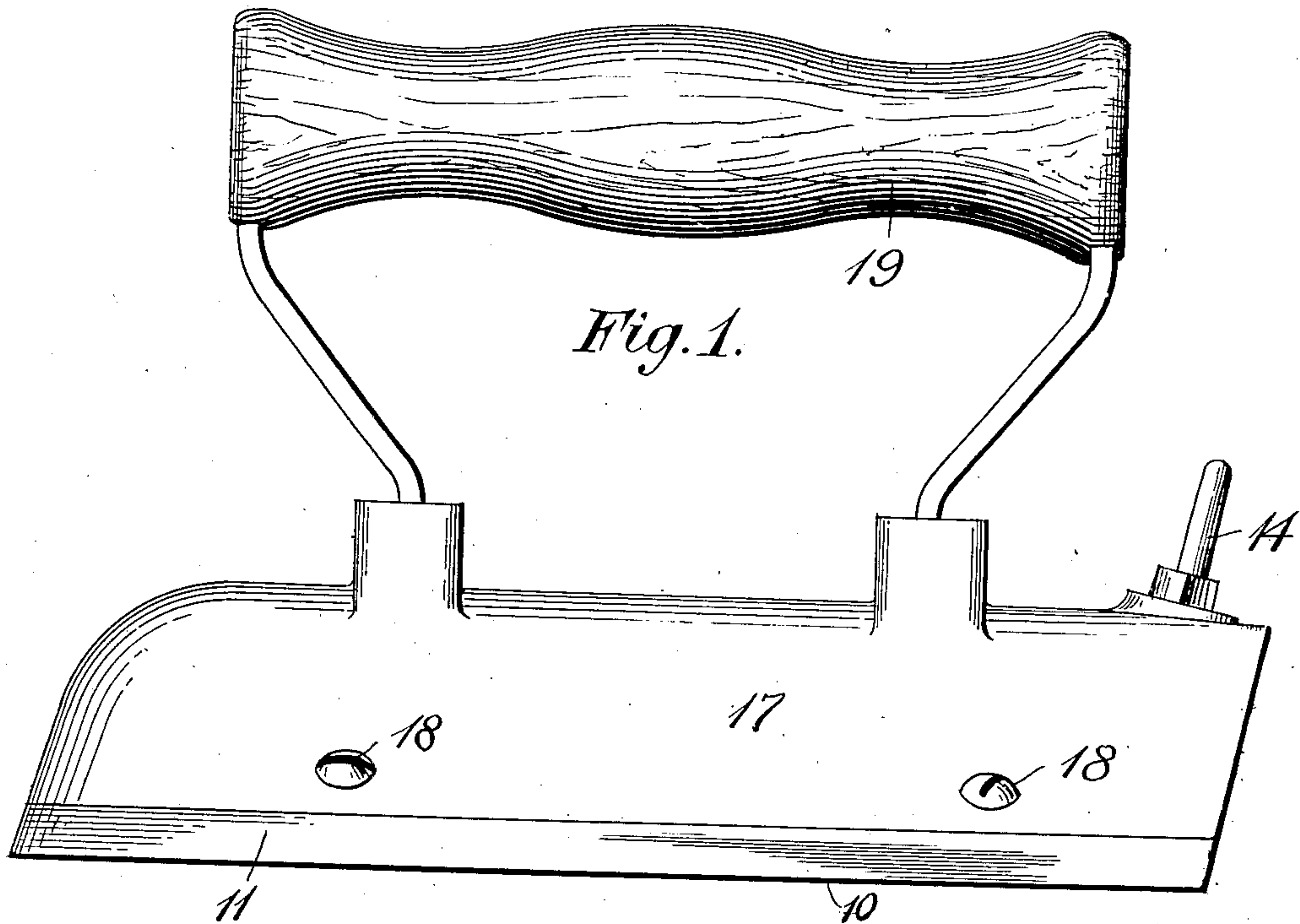


E. D. HOLLEY & C. L. ROOT.
ELECTRICALLY HEATED FLAT IRON.
APPLICATION FILED FEB. 29, 1908.

912,471.

Patented Feb. 16, 1909.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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OF CONNECTICUT.

ELECTRICALLY-HEATED FLAT-IRON.

No. 912,471.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed February 29, 1908. Serial No. 418,446.

To all whom it may concern:

Be it known that we, EVERETT D. HOLLEY and CHARLES L. ROOT, citizens of the United States, residing at Forestville, Connecticut, and Bristol, Connecticut, respectively, have invented certain new and useful Improvements in Electrically-Heated Flat-Irons, of which the following is a specification.

The invention relates to flat-irons comprising intimately-united metals having such different chemical properties as will prevent the formation of an alloy, except at melting temperatures whether such articles be pieces of the metals themselves or articles formed therefrom, and one object of the invention is the production of an article comprising such metals in which the meeting surfaces shall be homogeneously united so as to avoid all space or individual contact spots between the metals.

Our invention has, furthermore, for its object, the combination with comparatively thin iron base plate, of a bulky heat-absorbing and conducting medium or metal which is homogeneously united with the base plate so as to avoid all space or individual contact spots therewith.

Further objects of the invention will be hereinafter described, and the means for their attainment fully set forth in the claims.

The invention is particularly applicable to flat irons, and more especially to that class thereof which are generally known as "self-heating", and in which electricity constitutes the heat-imparting medium, and it has for one of its objects the provision of a device of this character in which the heat generated by the electrical "heat-unit" will be distributed evenly over the entire surface of the working surface of the iron.

Our invention has been clearly illustrated in the accompanying drawings, in which:—

Figure 1 represents a side view of a flat iron embodying our invention. Fig. 2 is a central longitudinal section thereof, Fig. 3 shows a section on line 3—3 of Fig. 2.

In electrically-heated flat irons as constructed heretofore a considerable amount of the heat generated by the "heat-unit," has been lost owing to the poor heat-conducting qualities of the iron, and attempts have been made to overcome such objection

by substituting other metal therefor; but, inasmuch as such substitute metals were apt to soil the articles to be ironed, we prefer to make the base of our improved device of thin, cast iron, and to employ copper as the heat-transmitting medium which is homogeneously united with or cast onto, the iron base plate in such a manner that a solid or firm contact between the copper body and the iron base plate will result.

In the drawings, 10 denotes the base plate of the flat iron, made of thin cast iron and having its side edges slightly flanged, at 11, to present an iron surface of required size all around. In preferably full surface contact with the upper face of the plate 10, is the heat receiving and transmitting medium 12 consisting in the present instance of a highly-ductile metal, such as copper cast in molten condition onto the plate 10, which latter had previously been coated by a thin film of a fusible binder, such as zinc, in order to insure a thorough and complete unification and contact between the iron plate 10 and the copper heat-distributor 12. The latter is suitably chambered to receive a "heat-unit" 13, having terminals 14, 15, for attachment of electrical conductors (not shown) whereby electrical energy is concentrated within said unit 13 to heat the copper shell 12, which in turn transmits the heat to the entire surface of the plate 10 at a substantially even temperature.

From the foregoing it should be understood that the plate 10 and shell 13 are practically homogeneously united, and, in order to prevent radiation of heat from the upper and exposed portions of said shell, we deem it advantageous to cover the upper surface thereof with a layer of asbestos or similar non-conducting material 16, which is, in turn, covered by a cover or hood 17 adapted to be removably secured to the shell 13, (as for instance by screws 18), and having a handle 19 for hand-manipulation.

It is evident that the invention is applicable to articles of many different kinds, the foregoing description of a flat-iron merely serving as an illustration of its adaptability in practical form. In other words: the invention is not confined to the actual combination of iron and copper, which in the present

instance are desirable elements in producing especial results.

We claim:—

1. In a flat-iron, the combination with an
5 iron base plate, of a copper heat-distributor having a homogeneous surface union with said plate.
2. The combination with an iron base plate, of a copper heat-distributing member

having a homogeneous surface union with 10 said plate, and an electric heat-unit disposed in said distributing member.

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Witnesses:

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