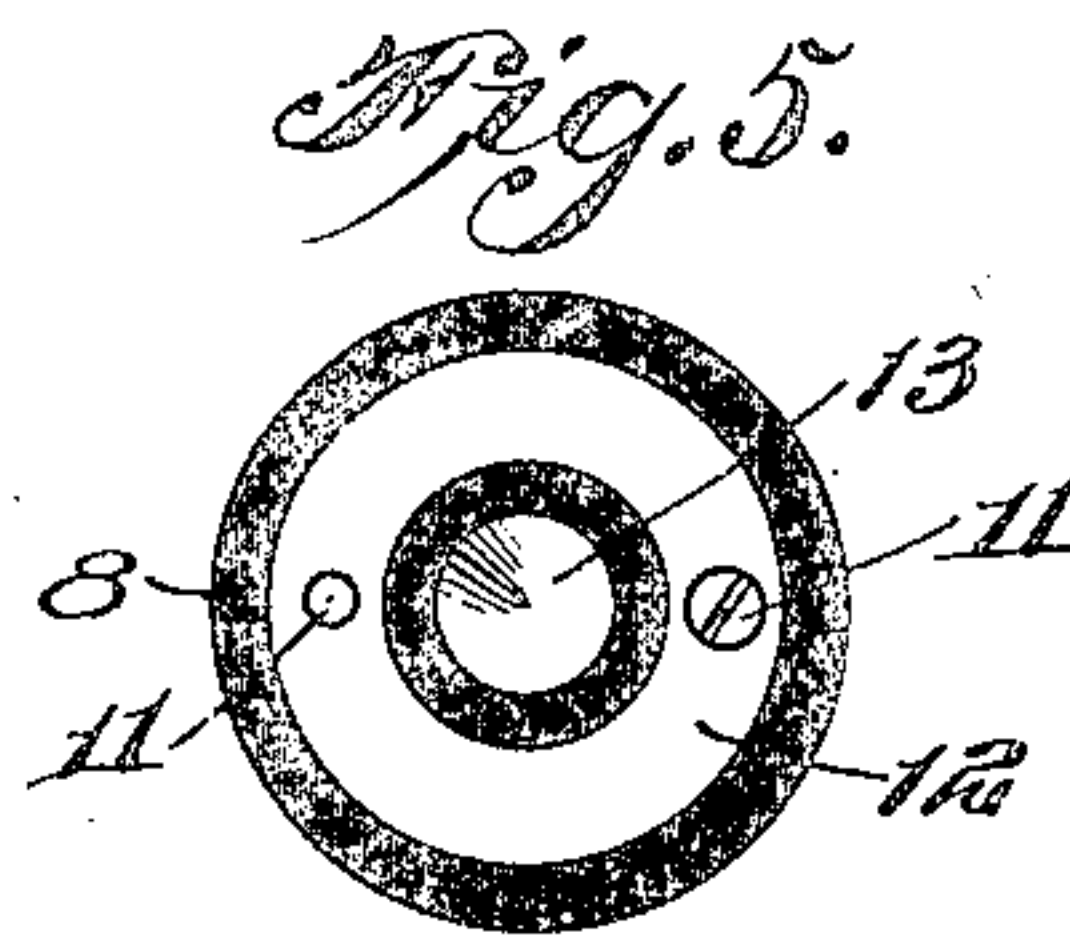
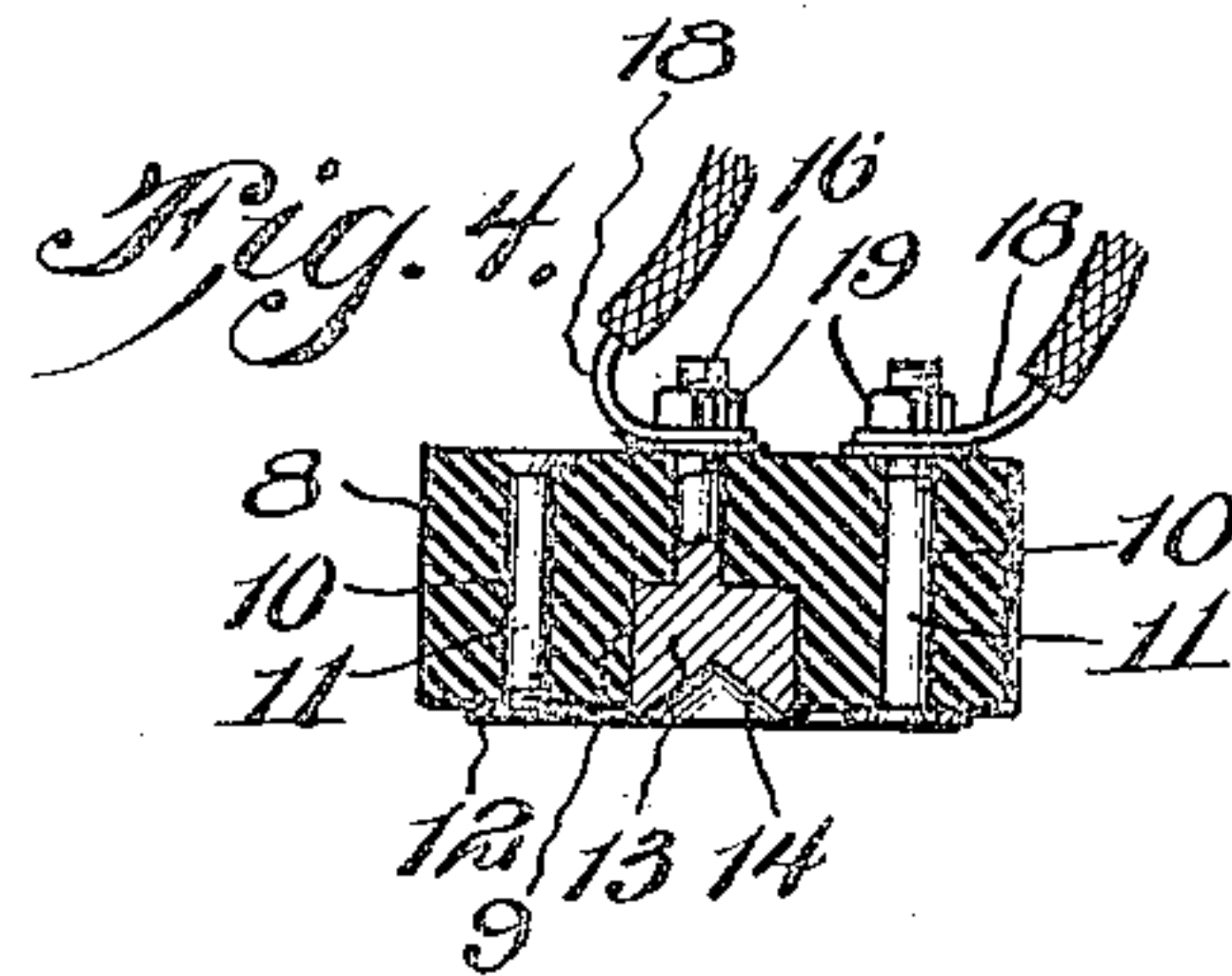
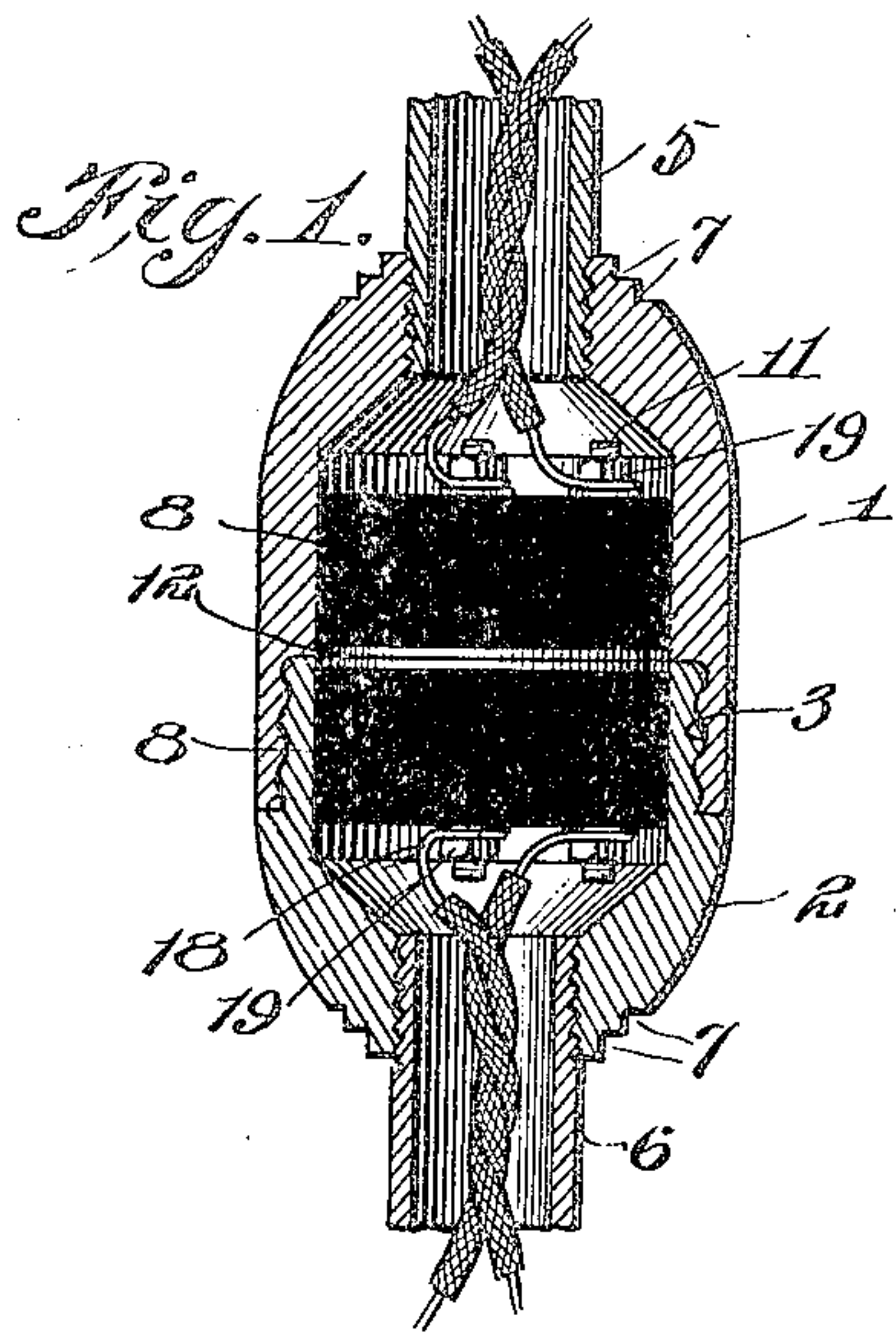


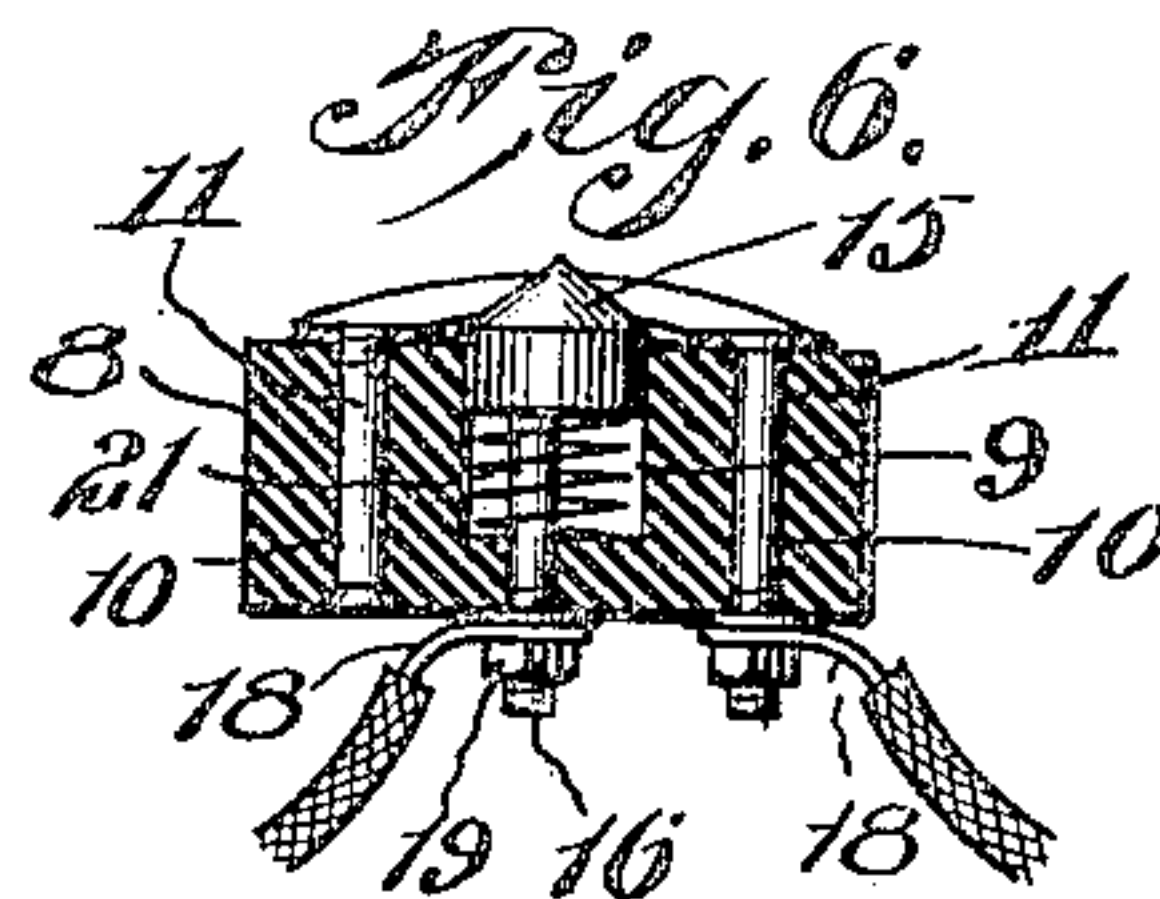
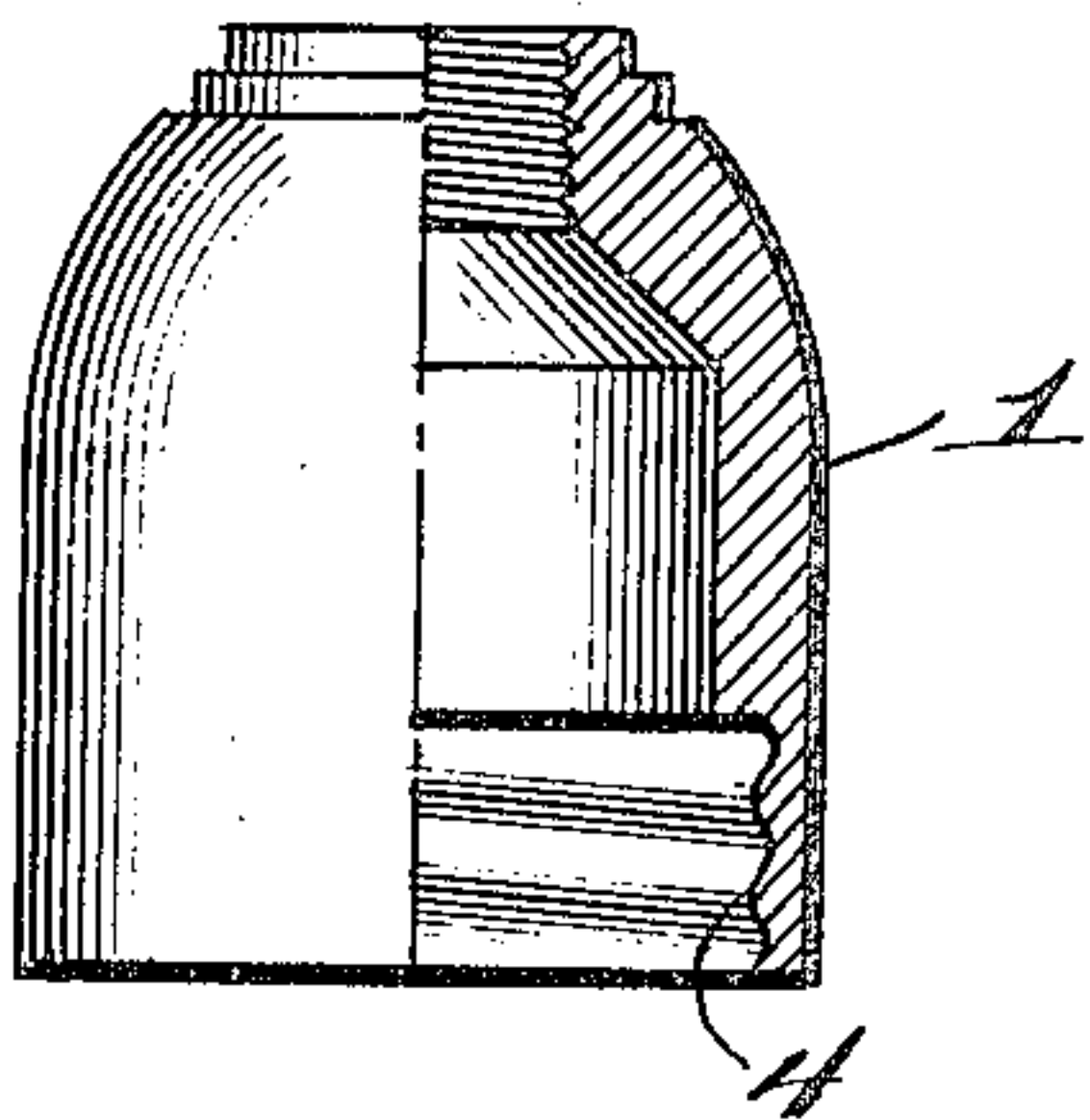
A. H. CONWAY.  
COUPLING FOR ELECTRIC CONDUCTORS.  
APPLICATION FILED MAY 3, 1907.

917,548.

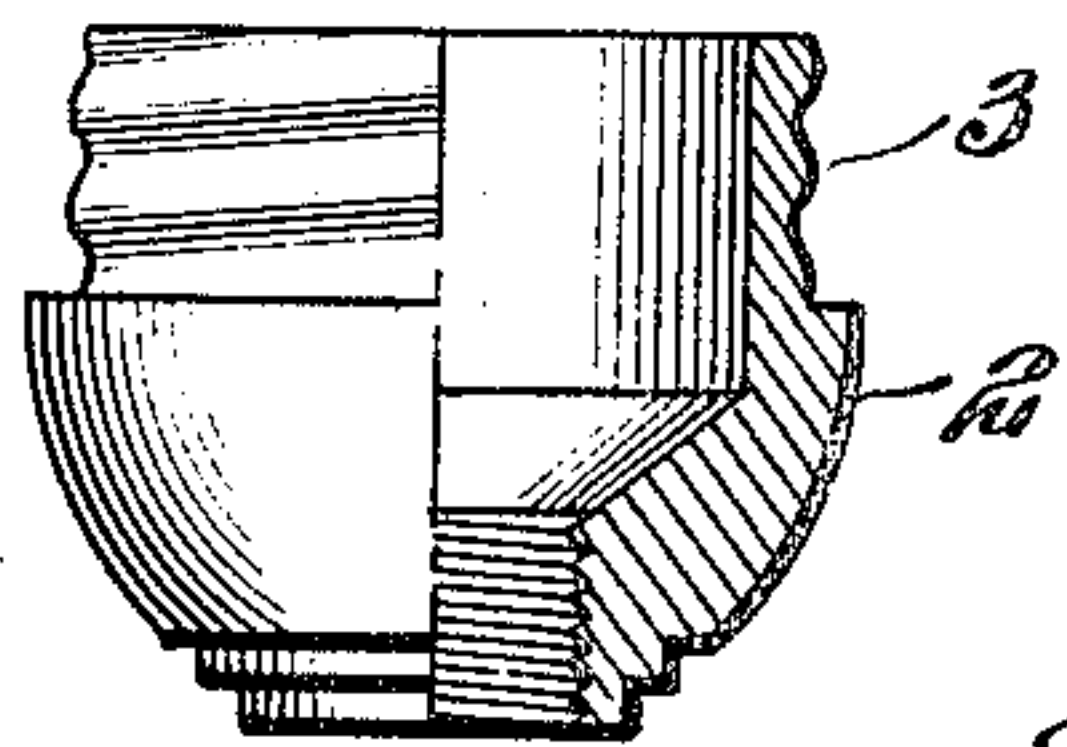
Patented Apr. 6, 1909.



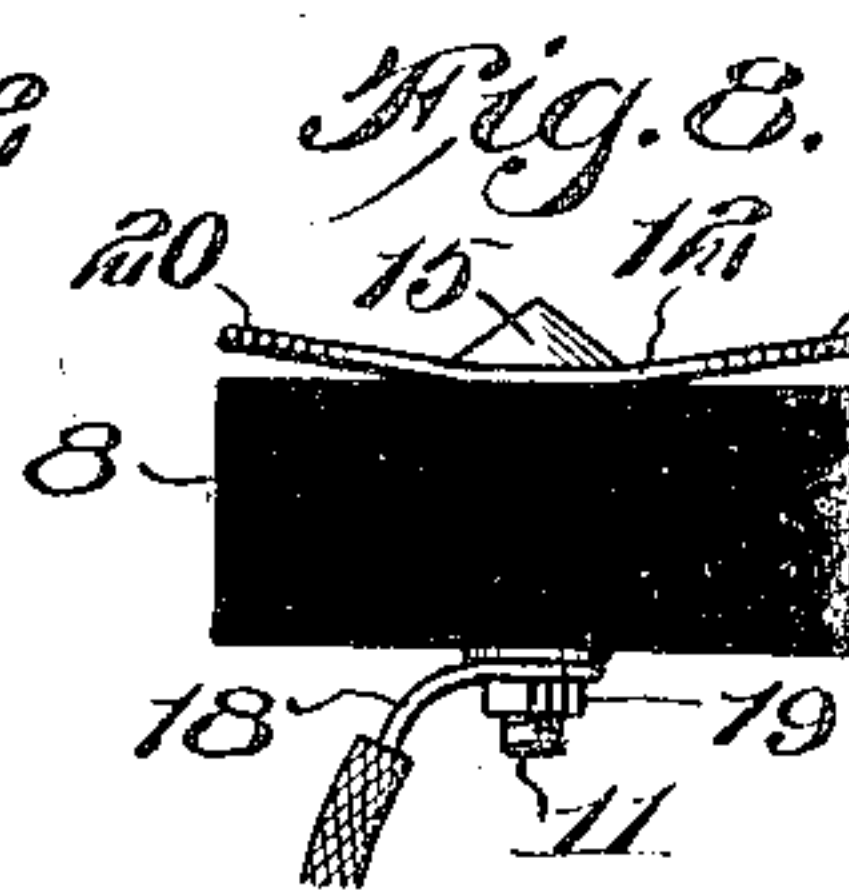
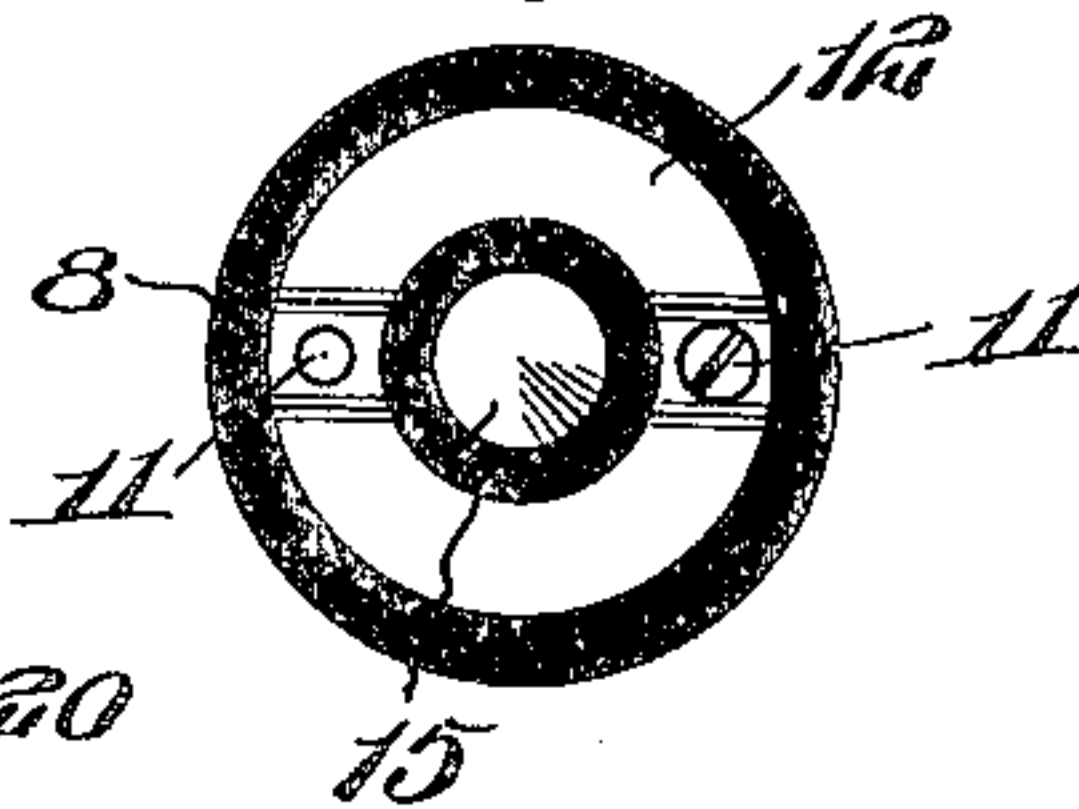
*Fig. 2.*



*Fig. 3.*



*Fig. 7.*



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Witnesses

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By *Victor J. Evans*  
Attorney



# UNITED STATES PATENT OFFICE.

ALBERT H. CONWAY, OF MASON CITY, IOWA.

## COUPLING FOR ELECTRIC CONDUCTORS.

No. 917,548.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed May 3, 1907. Serial No. 371,616.

*To all whom it may concern:*

Be it known that I, ALBERT H. CONWAY, a citizen of the United States, residing at Mason City, in the county of Cerro Gordo and State of Iowa, have invented new and useful Improvements in Couplings for Electric Conductors, of which the following is a specification.

This invention relates to a coupling for electric conductors, and relates more particularly to a coupling device intended more particularly for use in connection with electric light fixtures, whereby the latter can be quickly and readily connected or disconnected with respect to the ceiling support, thereby facilitating the cleaning of the fixtures without requiring an electrician to be called for the purpose.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively easy and inexpensive to manufacture, composed of few parts and arranged to permit the electric lamp fixture to be connected or disconnected without requiring the conductors to be cut or connected.

A further object of the invention is the provision of a coupling composed of two parts detachably connected by screw threads and each having a block of insulation carrying the contacts by which the electric circuit is completed.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention, Figure 1 is a longitudinal section of the coupling. Figs. 2 and 3 are semi-sectional and front views of the two portions of the coupling shell. Fig. 4 is a central vertical section of one of the insulation blocks showing the contacts thereof. Fig. 5 is a bottom plan view of the insulation block. Fig. 6 is a vertical central section of the second insulation block showing its contacts. Fig. 7 is a top plan view thereof. Fig. 8 is a side elevation of the second insulation block and contacts.

Similar reference characters are employed to designate similar parts throughout the several figures.

Referring to the drawing, 1 and 2 designate the two parts of the shell of the coupling and these are preferably brass castings turned and polished on the outside or otherwise suitably finished to match the fixture. The shell 2 is reduced and provided with a thread 3 for engaging the internal thread 4, and the ends of the sections 1 and 2 are bored and tapped to receive the ceiling pipe 5 and stem 6 of the fixture, and double shoulders 7 are cut in the ends of the sections to receive the casings usually employed in connection with the pipes 5 and 6. In each part of the coupling is a fiber body 8 preferably in the form of a disk and of such size as to have a forced fit in the chamber of its respective coupling section. Each bushing or insulation block is provided with a central bore 9 extending partially through the same for receiving a contact and on opposite sides of the bore 9 are passages 10 for receiving the screws 11. These screws secure an annular contact or ring 12 to one of the flat ends of the insulation block and in concentric relation to the central contact. One of the screws 11 has a threaded engagement with the contact ring, while the other screw has its head countersunk in the ring and the threaded end thereof serves as a binding post. The contact 13 in the upper block has a conical depression or seat 14 for receiving the conical end of the central contact 15 in the lower insulation block. Each central contact has a stem 16 that passes through the insulation block and is threaded at its outer end to serve as a binding post. The stems 16 are eccentrically arranged with respect to the body portions of the central contacts so that they will prevent the contacts from turning as the nuts are screwed on or removed from the stems, since the body portions of the contacts snugly fit in the countersunk bores of the insulation blocks. On the threaded ends of the stems 16, screws 11, nuts 19 and the end of the conductor 18, is applied solder for insuring good electrical connections.

The insulation blocks are assembled in their respective sections of the coupling in such a manner that the contact rings 12 will bear one on the other and the central contact 17 engage in the other central contact 13, so that one side of the circuit is completed through the ring contacts and the opposite side through the central contacts.

To insure the proper engagement of the



companion contacts, one of the contact rings is preferably bent outwardly from its insulation block, as indicated at 20 in Fig. 4, thereby giving resiliency to the said ring so that it will bear upon the companion ring with considerable pressure, when the two parts of the coupling are screwed home. One of the central contacts, preferably the contact 15, is movably mounted in its insulation block and for this purpose, the bore 9 thereof is of such a depth as to receive a helical compression spring 21 interposed between the contact 15 and the bottom of the bore, so as to normally urge the contact outwardly. By this arrangement, the contact 15 will be maintained in engagement with the contact 13 by the tension of the spring, thus insuring a good electrical connection.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation are readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as are within the scope of the claims.

Having thus described the invention, what I claim is:—

1. In a device of the class described, the combination of a shell composed of detachably connected sections, a block of insulation fitted in the sections and each provided with apertures and a central countersunk bore, contact rings arranged on the opposed faces of the blocks, screws passing through the apertures and rings for holding the latter in

place, one screw in each block having its head countersunk in the ring and its opposite end serving as a binding post, means for securing conductors to such binding post, contacts disposed in the central bores and each consisting of a head and a stem eccentric to the head, the heads being arranged in the bores and the stems extending through the blocks, threads of the stems, nuts engaging the threads of the stems, conductors secured to the stems by the nuts, and a spring disposed under the head of one of the contacts and housed in the block for such contact for yieldingly holding the contact in engagement.

2. In a device of the class described, the combination of a casing composed of detachably connected sections, a block of insulation in each section, contact rings provided with apertures at diametrically opposite points, one aperture of each ring being countersunk and the other threaded, a pair of screws extending through each block and one having its head countersunk in the adjacent ring and the other engaged in the threaded aperture, one screw being longer than the other and serving as a binding post, means for securing conductors to the longer screws, central contacts set into the blocks and having threaded stems eccentrically arranged and extending out of the blocks, conductors connected with the stems, nuts on the stems for securing the conductors thereto, and a spring on one of the stems for yieldingly holding the contact in engagement with the other.

In testimony whereof, I affix my signature in presence of two witnesses.

ALBERT H. CONWAY

Witnesses:

HUGH H. SHEPARD,  
E. W. CLARK.