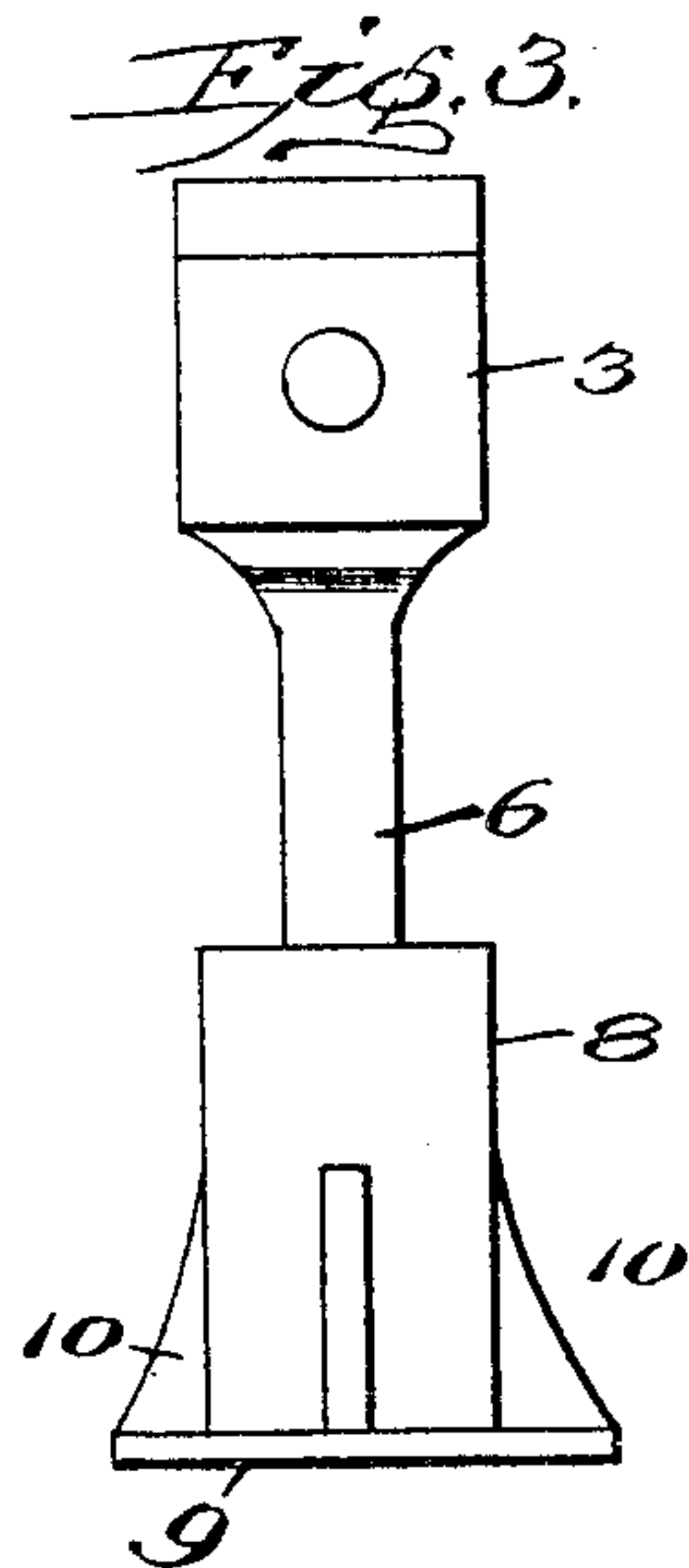
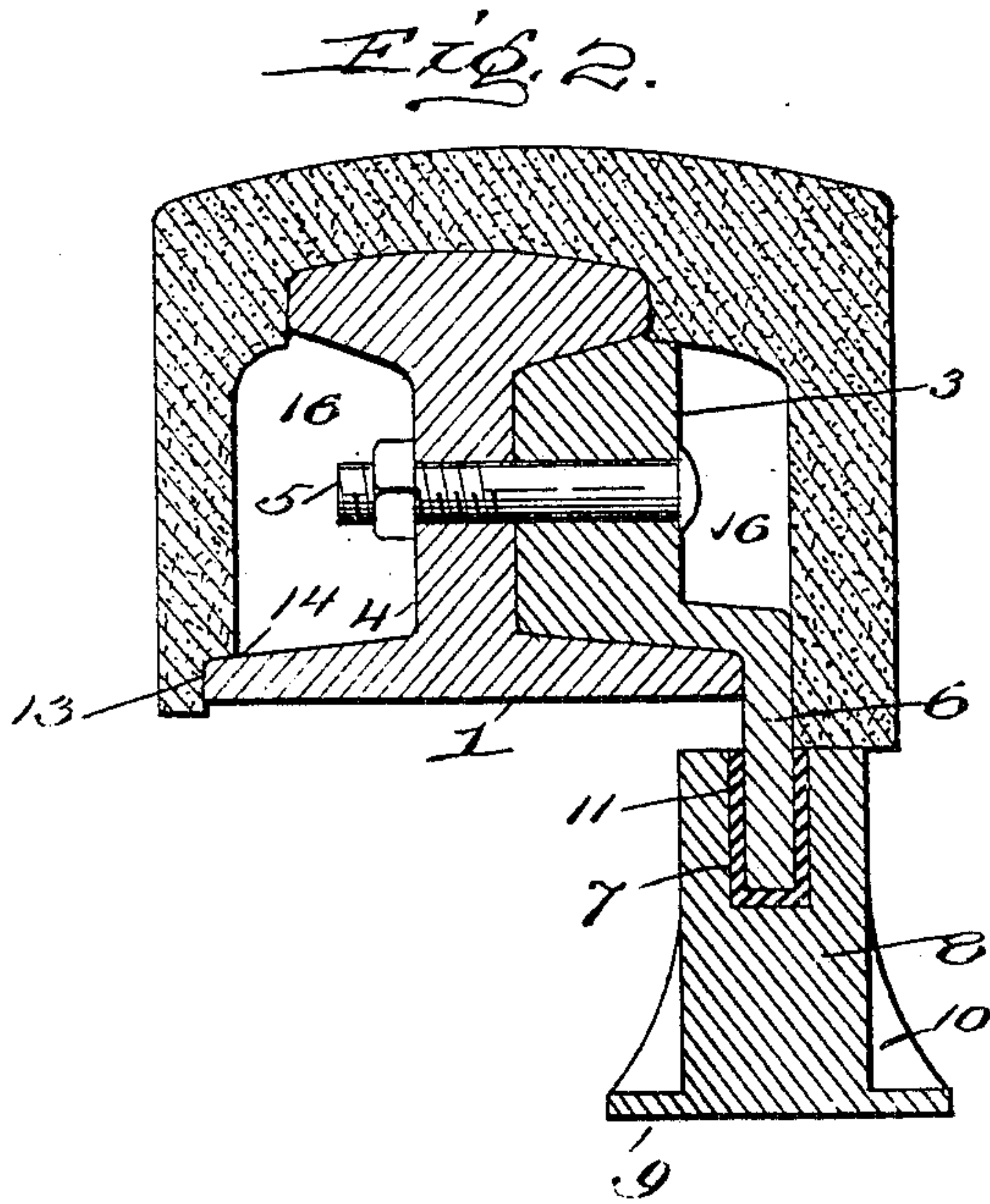
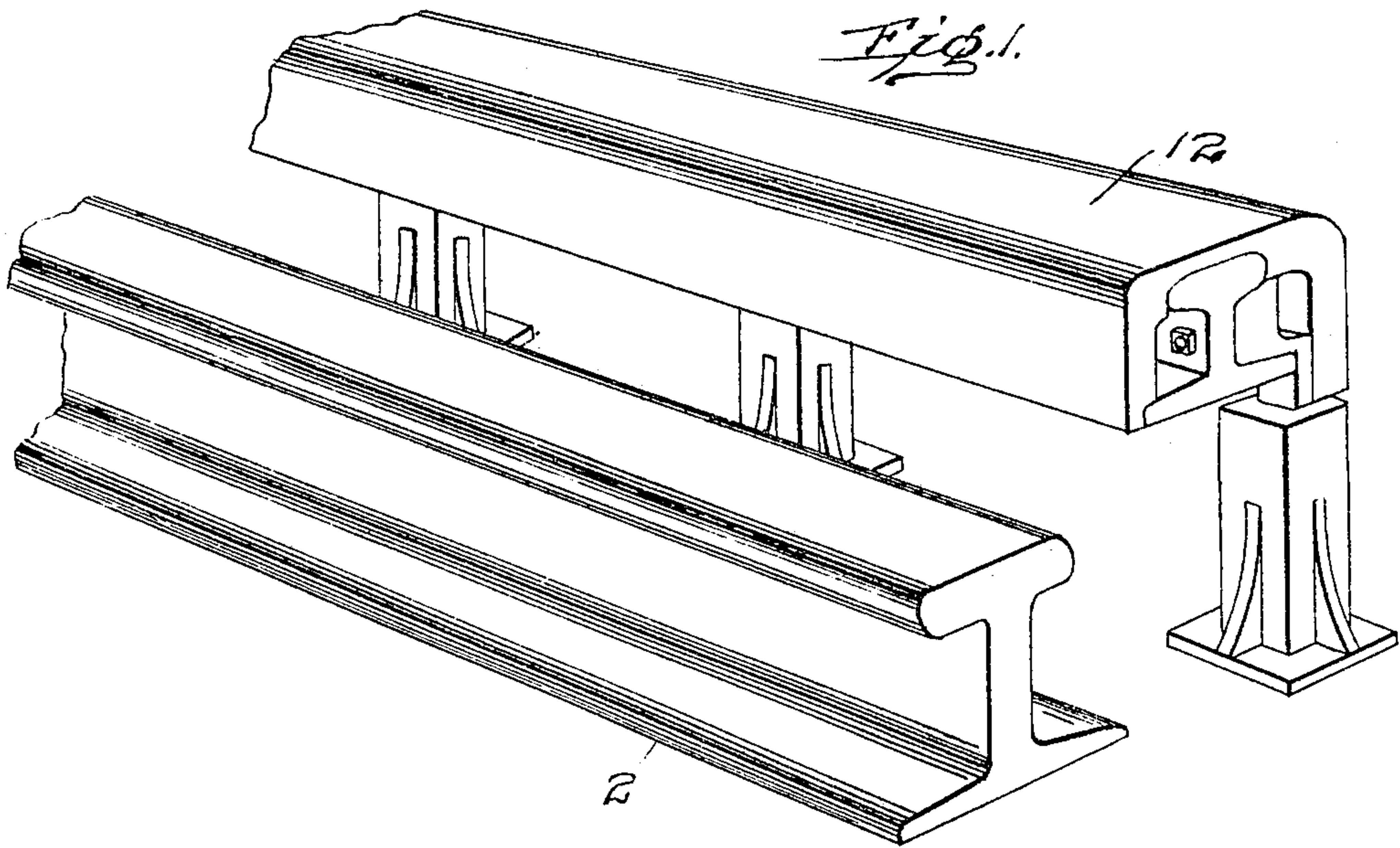


No. 799,110.

PATENTED SEPT. 12, 1905.

W. G. TAYLOR.
COVER FOR THIRD RAILS.
APPLICATION FILED DEC 3, 1904.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM GEORGE TAYLOR, OF FOREST CITY, PENNSYLVANIA.

COVER FOR THIRD RAILS.

No. 799,110.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed December 3, 1904. Serial No. 235,375.

To all whom it may concern:

Be it known that I, WILLIAM GEORGE TAYLOR, a citizen of the United States, residing at Forest City, in the county of Susquehanna and State of Pennsylvania, have invented certain new and useful Improvements in Covers for Third Rails; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a new and useful third-rail electrical system, and its principal object is to provide a form of third rail which is so mounted and arranged as to prevent the danger of accidental contact with persons or animals.

Another object of my invention is to provide a third rail which is thoroughly protected from snow, ice, and other undesirable accumulations, which are liable to ground the circuit and render the system inefficient.

Another object is to provide a protecting-cover for the third rail which is firmly mounted upon and supported by said rail and forms air-passages whereby the temperature of the parts contacting with said rail is prevented from reaching an abnormal state.

With the above and other objects in view the invention consists in certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter more fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view showing my improved third rail supported in proper relation to a rail of a track. Fig. 2 is an enlarged transverse section through the third rail and the parts connected thereto. Fig. 3 is an enlarged elevation of one of the rail-supporting standards.

Referring to the figures by numerals of reference, 1 is a third rail which is of the same construction as the rails 2, constituting the truck, and its rail is supported parallel with but at an elevation above the truck. At regular intervals blocks 3 are fastened to the web 4 of the third rail by means of bolts 5, and these blocks fit snugly against the web and between the base and head of the rail. Extending downward from each of the blocks is a substantially L-shaped extension 6, which fits within a socket 7, formed in the upper end of a standard 8, preferably constructed of a single casting having a base-flange 9 and strengthening-webs 10 disposed thereon. In-

sulation 11 of any preferred kind is preferably packed within the socket 7 and about the extension 6, so as to prevent a current of electricity from passing from said extension to the standard 8.

The third rail 1 is provided with a protecting-cover, which consists of alining sections 12 of non-conducting ceramic material, and these sections have their inner faces so shaped as to fit snugly upon the upper surface of the third rail. The inner surface is cut away along one edge of the section, as shown at 13, to form a shoulder 14, adapted to bear on one of the base-flanges 15 of the rail, thereby supporting one side of the cover 12. The opposite side of each of the cover-sections bears upon and is supported by the standard 8. As the side walls of the sections are reduced in thickness air-passages 16 are formed between them and the web 4 of the third rail, and the air circulating through these passages serves to keep down the temperature of the rail. The cover-sections 12 can be secured in position in any preferred manner, although it is not necessary to employ a fastening device, for the reason that all of the sections can be joined by cement or other like material, thereby making a continuous unbroken cover.

By supporting the side walls of the cover upon the base of the third rail and upon the standards 8 it is unnecessary to utilize any special supporting devices for this purpose, and therefore the cover can be constructed and placed in position at the minimum cost.

As the cover-sections are formed of non-conducting ceramic material, such as terracotta, all danger of the rail being accidentally contacted by persons or animals is obviated. Moreover, by utilizing a rail of ordinary construction for the third rail it becomes unnecessary to go to the expense incurred by using a particular form of third rail. The base of the rail presents a very broad surface for contacting with the conducting brush or shoe of a car.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of the invention.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a third-rail system, a third rail, a support therefor, and an insulating-cover engaging the rail forming a passage therein at one side of the rail.
- 5 2. In a third-rail system, a third rail, a support therefor, and an insulating-cover for the rail, said rail forming a support for the cover, and said cover having a passage therein at one side of the rail.
- 10 3. In a third-rail system, a third rail, a support therefor, an insulating-cover for the rail, said cover bearing at one edge and at the top thereof upon the rail, and having a passage therein at one side of the rail.
- 15 4. In a third-rail system, a third rail, a support therefor, an insulating-cover upon the rail, said cover bearing upon one base-flange and the top of the rail and having a continuous air-passage therein.
- 20 5. In a third-rail system, a third rail, a support therefor, an insulating-cover bearing upon the rail and having one edge supported by a base-flange of the rail, and its other edge upon the supports, said cover having an air-
25 passage therein.
- 30 6. In a third-rail system, a third rail, supports therefor, an insulating-cover upon and engaging the upper portion of the rail, one side of said cover being supported by a base-flange of the rail and the other side by a support, said cover having an air-passage therein.
7. In a third-rail system, a third rail, supports therefor, an insulating-cover upon and engaging the upper portion of the rail, one side of said cover being supported by a base- 35 flange of the rail and the other side by the support, said cover having a continuous air-passage therein at opposite sides of the rail.
8. In a third-rail system, a third rail, comprising a head, web and base-flanges, a support insulated from and connected to the web 40 of the rail, a non-conducting cover bearing upon the head and forming air-passages between it and the web of the rail, one edge of said cover bearing on a base-flange and the 45 other edge on the support.
9. In a third-rail system, a third rail, blocks secured thereto at intervals, standards forming supports for the blocks, and an insulating-cover for the rail having passages therein at 50 opposite sides of the rail, said covering being supported at the top and along the sides thereof.
10. In a third-rail system, a third rail, an insulating-cover contacting with and engag- 55 ing the head of the rail and having one edge supported by the base of the rail, said cover having air-passages therein along opposite sides of the rail.

In testimony whereof I affix my signature in 60 presence of two witnesses.

WILLIAM GEORGE TAYLOR.

Witnesses:

GEO. W. STILES,
A. G. STILES.