No. 800,755. PATENTED OCT. 3, 1905.

F. R. McBERTY.

CONNECTION SWITCH MEMBER.

APPLICATION FILED DEC. 7, 1904.

2 SHEETS—SHEET 1.

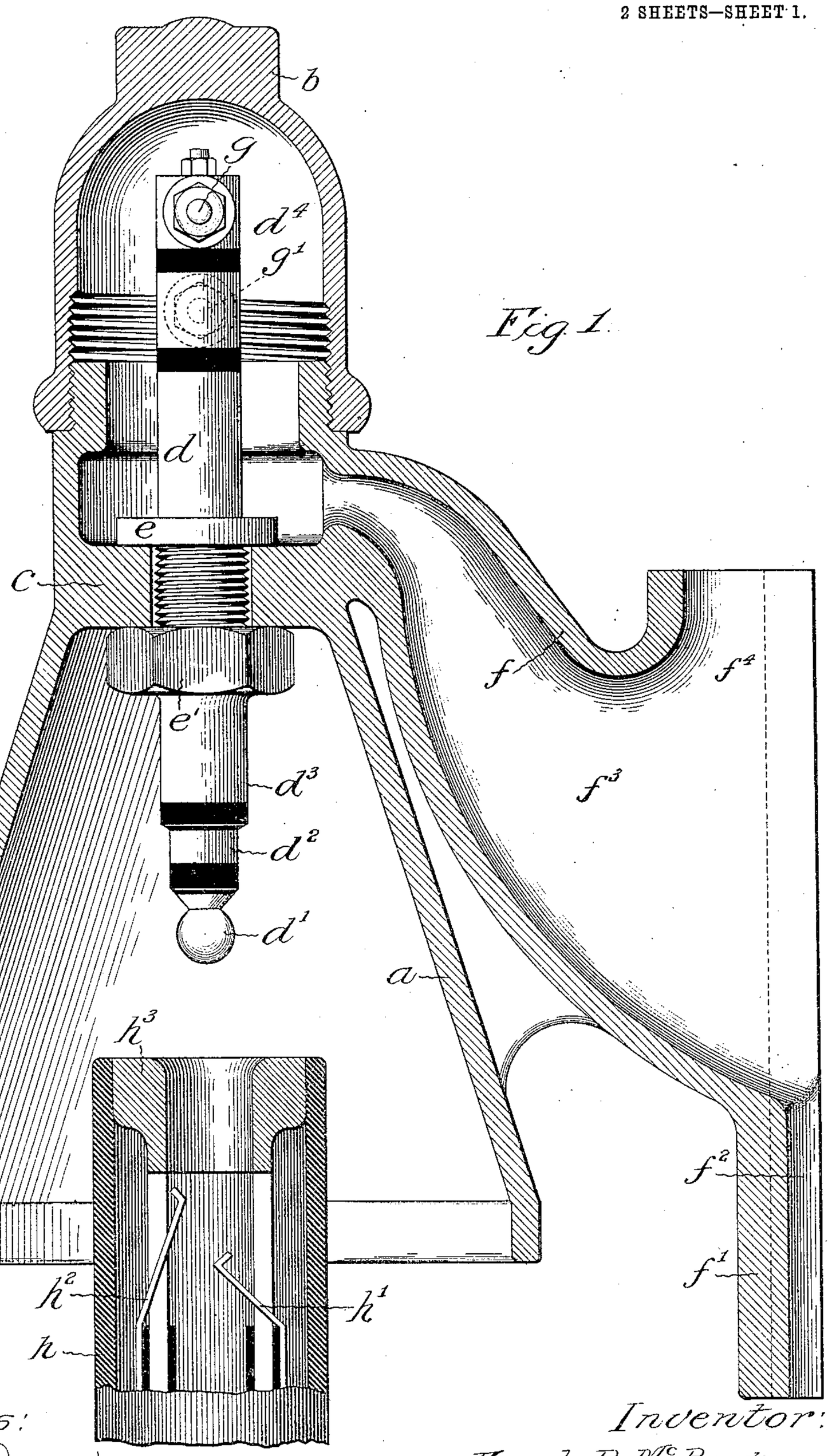


Fig 1.

Witnesses:
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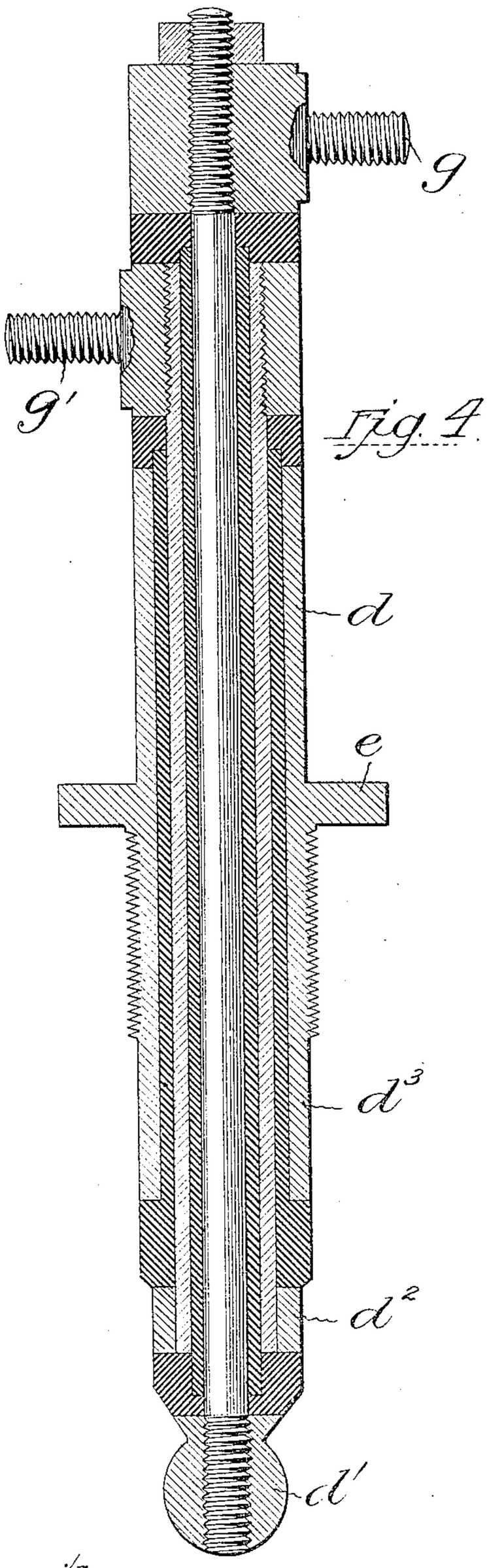


Fig. 4

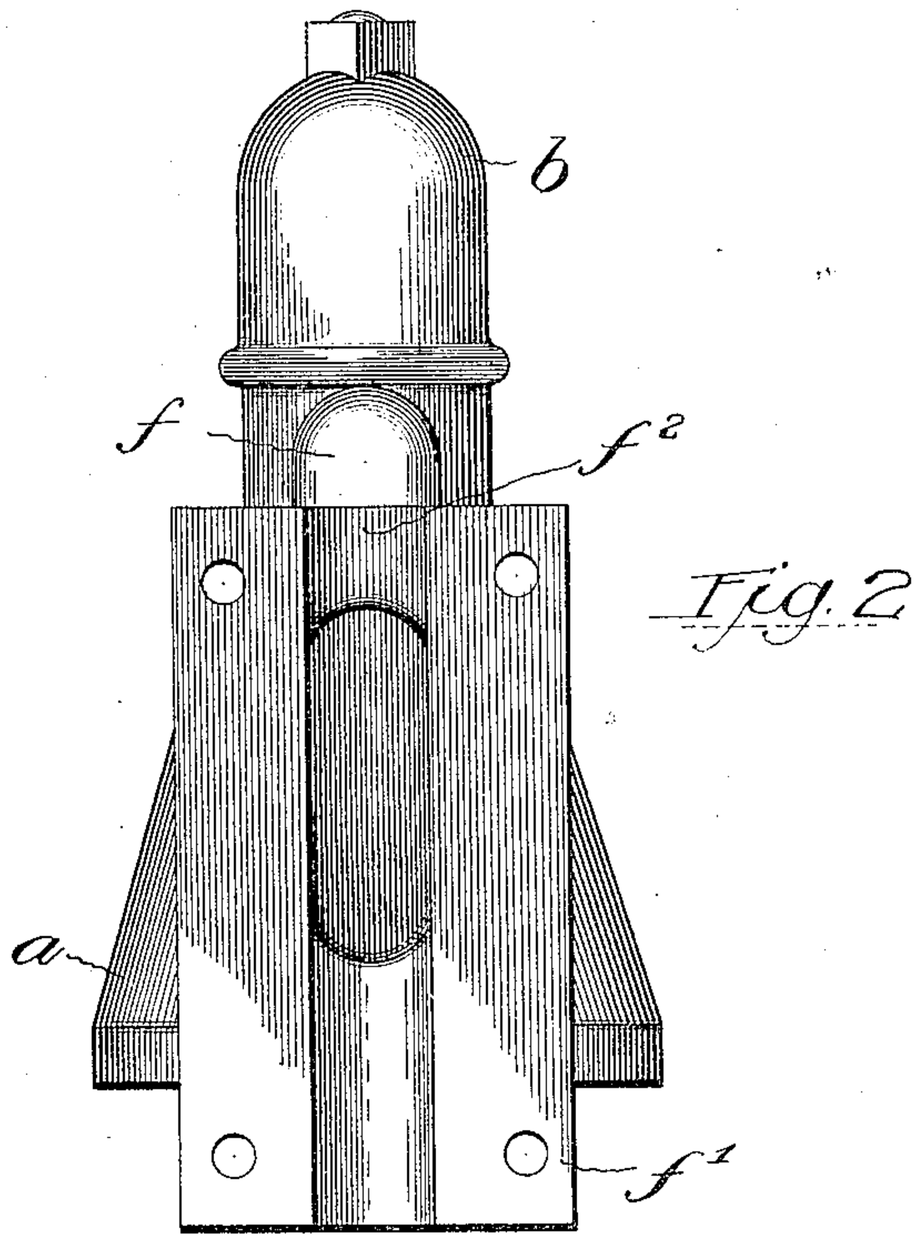


Fig. 2

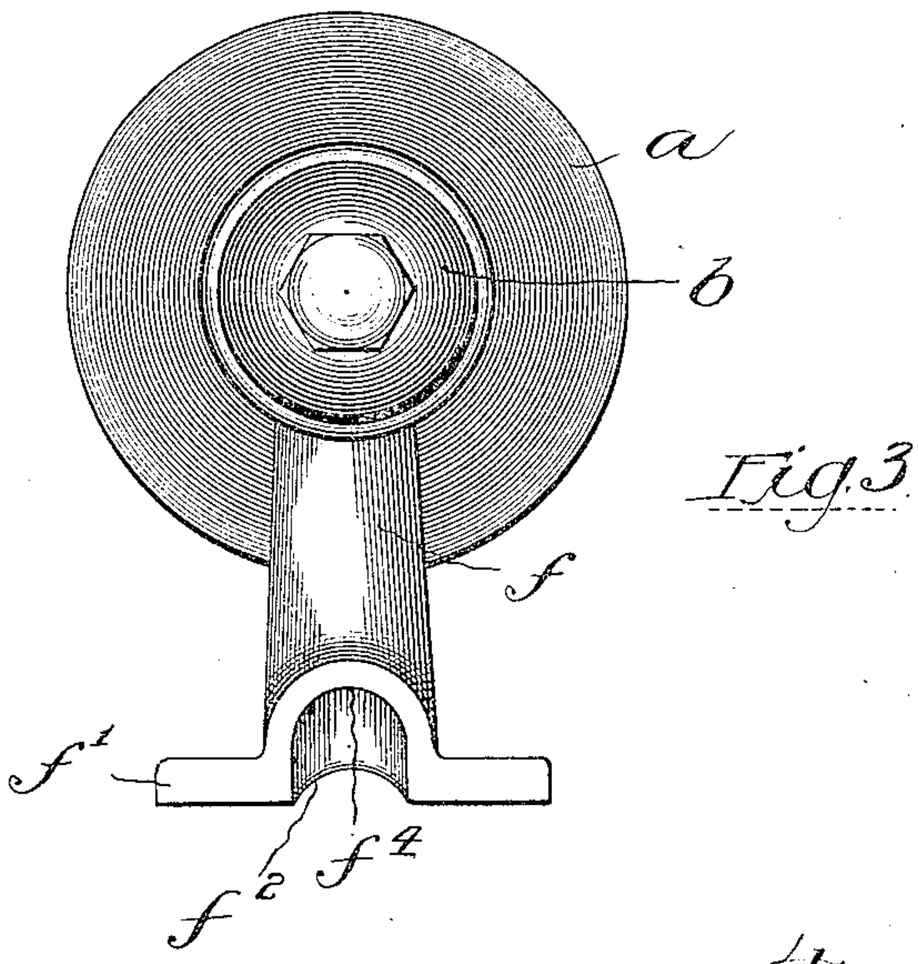


Fig. 3

Witnesses:

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# UNITED STATES PATENT OFFICE.

FRANK R. McBERTY, OF EVANSTON, ILLINOIS, ASSIGNOR TO WESTERN ELECTRIC COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## CONNECTION SWITCH MEMBER.

No. 800,755. Specification of Letters Patent. Patented Oct. 3, 1905.

Application filed December 7, 1904. Serial No. 235,855.

*To all whom it may concern:*

Be it known that I, FRANK R. McBERTY, a citizen of the United States, residing at Evanston, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Connection Switch Members, of which the following is a full, clear, concise, and exact description.

My invention relates to a connection switch member for electric circuits, and more particularly to switch members which may be employed as the connection-terminals of telephone-lines, to be mounted upon poles at intervals along such lines, as desired, at which terminals portable telephone sets may be temporarily united with the lines. Such telephone-lines are employed, for example, in connection with electric railways in order that trouble, accidents, and the like may be reported to the office of the company.

The object of my invention is to provide a mounting for the connection-terminals of the telephone-line, such that they shall be easily accessible for use, repair, and adjustment and at the same time protected from injury.

My aim is to connect the terminals of the line to contacts which are mounted with a protecting-covering, consisting of two parts—a hood for the switch-contacts of the connection-terminals affording protection and accessibility, and a connection-chamber into which the line-terminals are brought for connection to the switch-contacts. I provide a suitable support through which the conducting-wires are led to the connection-chamber and by which the structure may be mounted on a pole, and I provide the support with an outlet or drain to carry off any water that might collect.

I will describe my invention particularly by reference to the accompanying drawings, and the particular parts, improvements, or combinations which I consider novel with me will be pointed out in the appended claims.

Figure 1 is a longitudinal sectional view of the switch member of my invention, together with a portion of a movable spring-jack connector adapted for use with said switch member. Fig. 2 is a side view of the device to show the manner of securing the same to a pole. Fig. 3 is a plan view thereof, and Fig. 4 is a longitudinal sectional view of the connection terminal or plug.

The same letters of reference are used to designate the same parts in the several figures of the drawings.

The hood $a$, within which is removably supported the contact device which may form the terminals of a telephone-line, is preferably bell-shaped and provided at its top with a removable cap $b$ to permit access to the rear of the contact device. The switch-hood is provided with a cross-piece or partition $c$, as shown, adapted to serve as a support for the contact device. The contact device is preferably a plug $d$, having tip, ring, and sleeve contacts $d'$ $d^2$ $d^3$, respectively, projecting into the hood below the cross-piece, and connection-terminals $g$ $g'$ for the tip and ring contacts above the cross-piece in the chamber $d^4$, formed by the cap $b$ and cross-piece $c$ of the hood, the sleeve $d^3$ being preferably in direct connection with the metallic hood $a$, which in practice is grounded. The plug may be made about twice the size of an ordinary telephone switchboard-plug. The plug is preferably secured at its sleeve to the cross-piece, which is preferably of conducting material, and said cross-piece may have an opening therein, as shown, through which the plug may be inserted from the rear. The sleeve of the plug is threaded and provided with an annular flange $e$, adapted to abut against the rear of the cross-piece, and a nut $e'$ may then be screwed upon the sleeve until it abuts against the front wall of the partition or cross-piece $c$, the plug being thus firmly secured in position. The hood is provided with a supporting-arm $f$, extending from one side thereof and terminating in a flat base $f'$, adapted to be secured to a pole or the like. A passage $f^3$ is provided, through which the wires may be led into the chamber to the connection-terminals $g$ $g'$ of the device. This passage preferably extends through the supporting-arm $f$ and communicates with an opening in the hood behind the partition or cross-piece $c$. The base $f'$ has a longitudinal groove $f^2$ therein, which may extend throughout its entire length and communicate with the passage leading through the arm $f$, preferably at its top and bottom, so that the conducting-wires may be conveniently led to the connection-terminals, while water which may collect upon the conductors will be drained therefrom through the groove $f^2$. The base or bracket $f'$ preferably has an enlarged opening $f^4$ at its top, registering with the

groove $f^2$, as shown, to receive a pipe or cable containing the conducting-wires, which are led to the connection-terminals $g\ g'$ of the device.

Referring to Fig. 1, I have illustrated a portion of a movable spring-jack connector $h$, adapted to be used with the connection switch member of my invention and comprising short and long springs $h'\ h^2$ and a thimble $h^3$, adapted to register with the contact parts $d'\ d^2\ d^3$, respectively, of plug $d$.

By virtue of the construction above described a very compact and strong switch device is obtained whose contact parts and leading-in wires are protected at all times and which will not be liable to be deranged if subjected to violent and hard usage.

I claim—

1. In a connection switch member, the combination with a hood, of a cross-piece within said hood, a chamber in the hood above said cross-piece, a contact device supported by said cross-piece, said device having contact parts below the cross-piece and connection-terminals for said parts in the chamber above said cross-piece, said chamber having an opening to admit conducting-wires to said terminals, and a support for said hood.

2. In a connection switch member, the combination with a hood, of a cross-piece for the hood, a plug supported by said cross-piece having contact parts below the cross-piece and connection-terminals for said parts above the cross-piece, and a support for said hood having a passage communicating with an opening in the hood above the cross-piece, whereby conducting-wires may be led to said connection-terminals.

3. In a connection switch member, the combination with a hood, of a cross-piece for the hood, a plug removably secured to said cross-piece having tip, ring and sleeve contacts projecting into the hood below the cross-piece and connection-terminals for said contacts above the cross-piece, a removable cap for the hood, and a supporting-arm for said hood having a passage opening into the hood above said cross-piece, whereby conducting-wires may be led to said connection-terminals.

4. In a connection switch member, the combination with a metallic hood, of a cap for the top of said hood, a metal cross-piece within the hood, a plug passing through said cross-piece, a flange upon the threaded sleeve of said plug adapted to abut against the rear of the cross-piece, a nut adapted to be screwed upon the sleeve and against the front of said cross-piece to bind the plug in position, and a support for said hood having a passage leading therethrough and opening into the hood behind the cross-piece, through which conducting-wires may be led to said plug.

5. A connection switch member comprising a bell-shaped hood, a cap for the top thereof, a partition in said hood, a plug passing through said partition and removably secured thereto, a supporting-arm secured to one side of the hood and having a flat base adapted to be secured to a pole, said supporting-arm having a passage opening into the hood at the rear of the partition, and a longitudinal groove in said base communicating with said passage; whereby conducting-wires may be led to the plug and water drained off from the same.

6. In a connection switch member a contact device having a plurality of contacts at one end and connection-terminals at the opposite end, a protecting-hood surrounding said contacts and a chamber inclosing the connection-terminals, a supporting-bracket for said switch member and hood, said bracket having a passage opening into the chamber said passage provided with an inlet for the conducting-wires and an outlet or drain for water.

7. In a connection switch member a contact device having switch-contacts surrounded by a protecting-hood and connection-terminals for said switch-contacts inclosed in a chamber formed at the top of said hood, said chamber having an opening to admit conducting-wires to said terminals, and a support for said contact device and hood.

In witness whereof I hereunto subscribe my name this 23d day of September, A. D. 1904.

FRANK R. McBERTY.

Witnesses:
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E. F. BEAUBIEN.