

F. G. JONES.
CABLE TERMINAL.
APPLICATION FILED MAR. 11, 1908.

951,129.

Patented Mar. 8, 1910.

2 SHEETS—SHEET 1.

Fig. 2

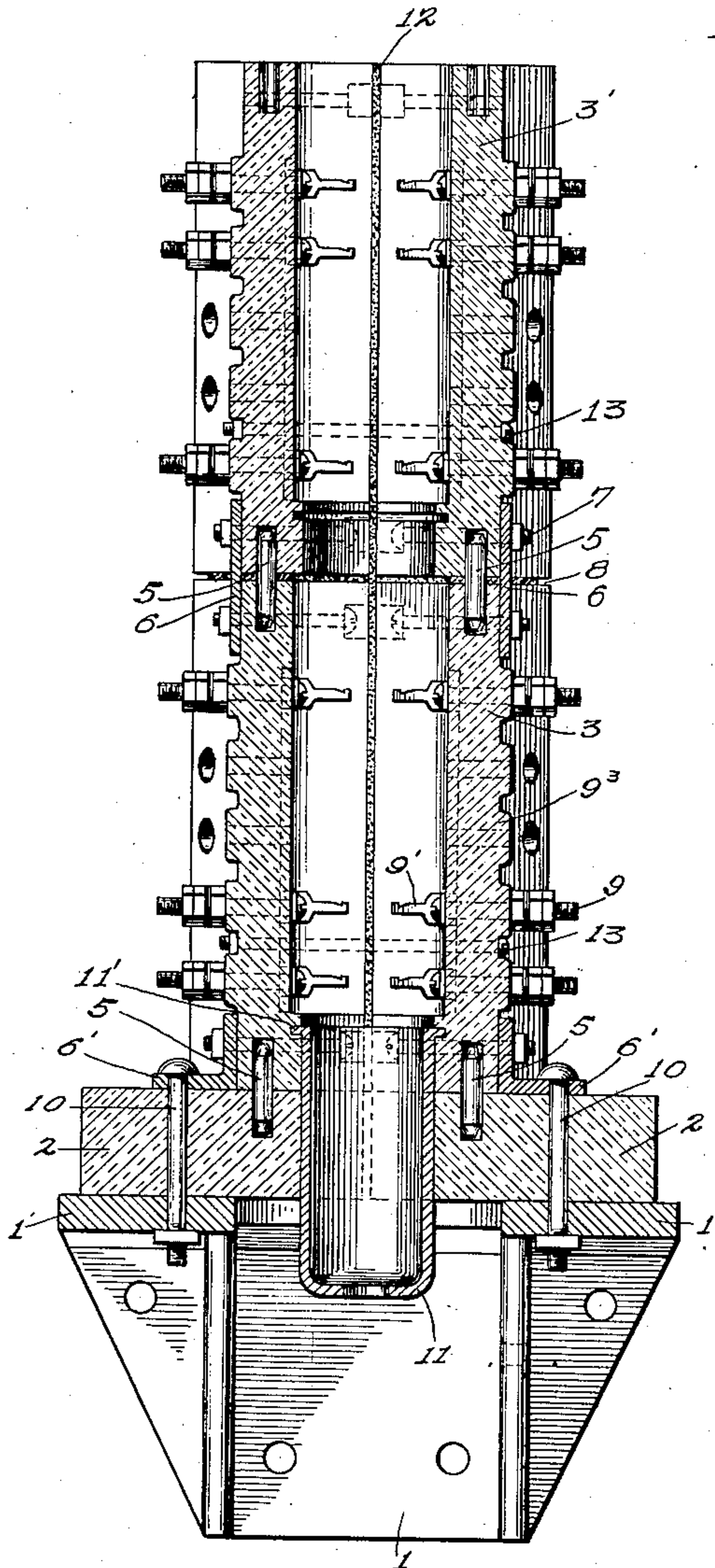
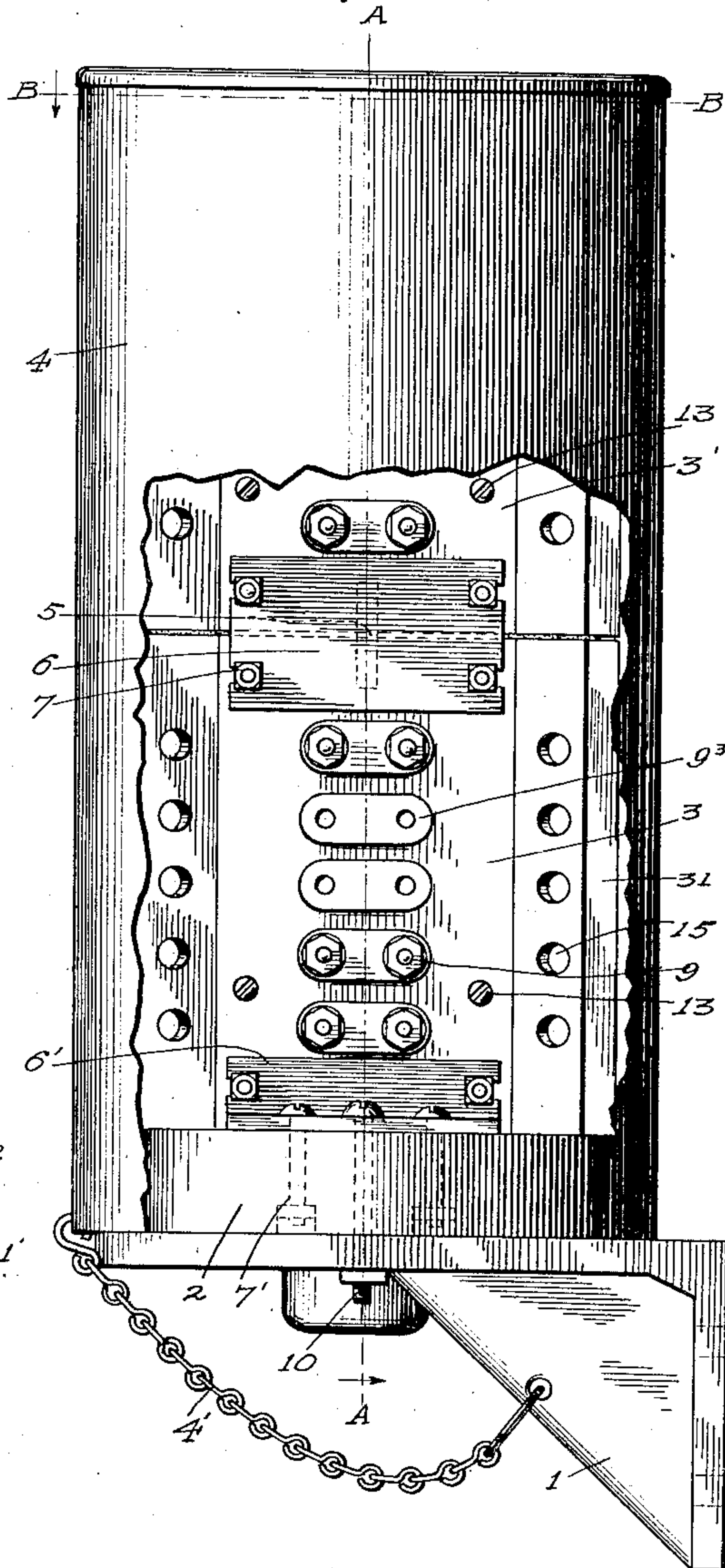


Fig. 1



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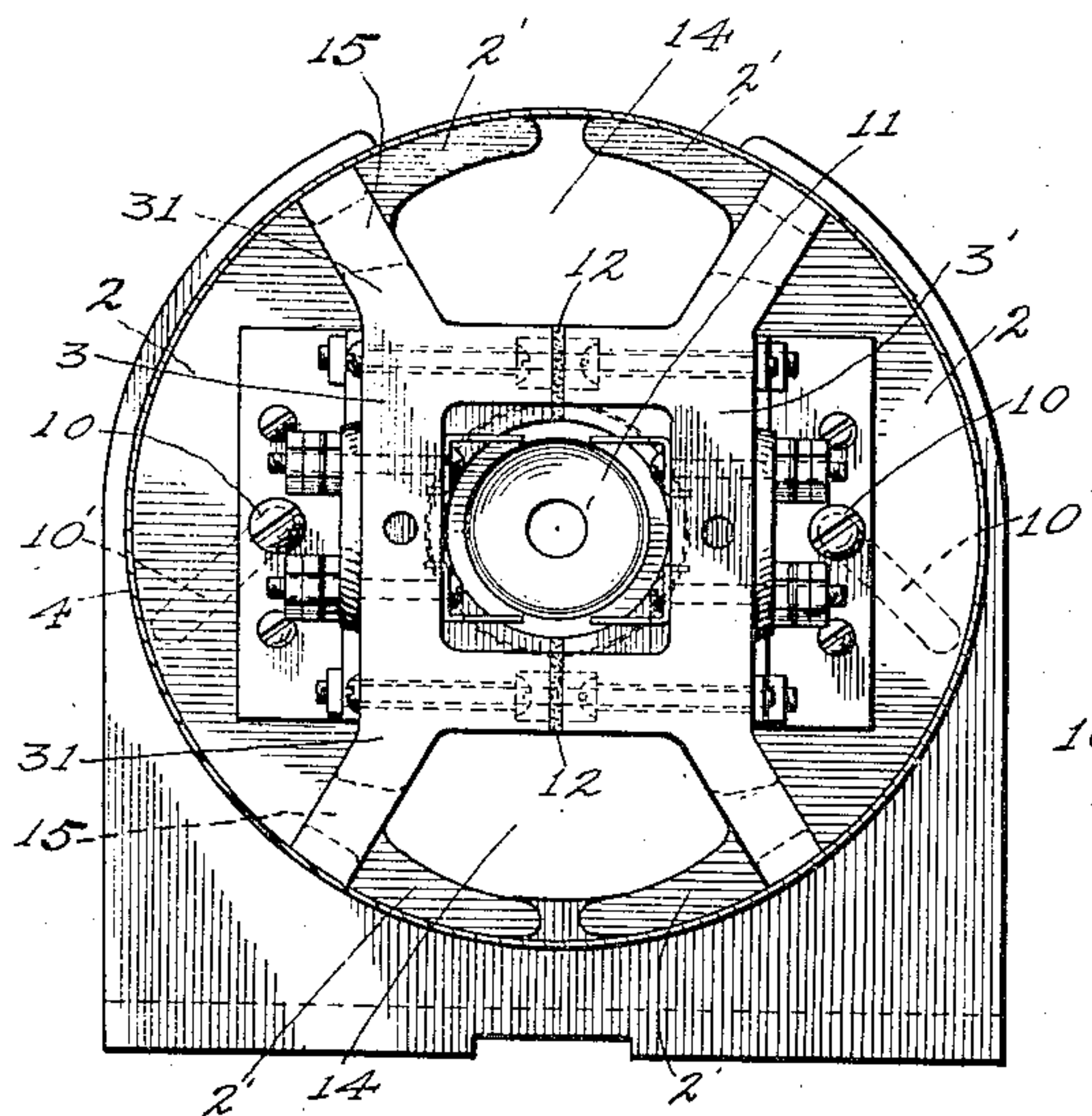


Fig. 3

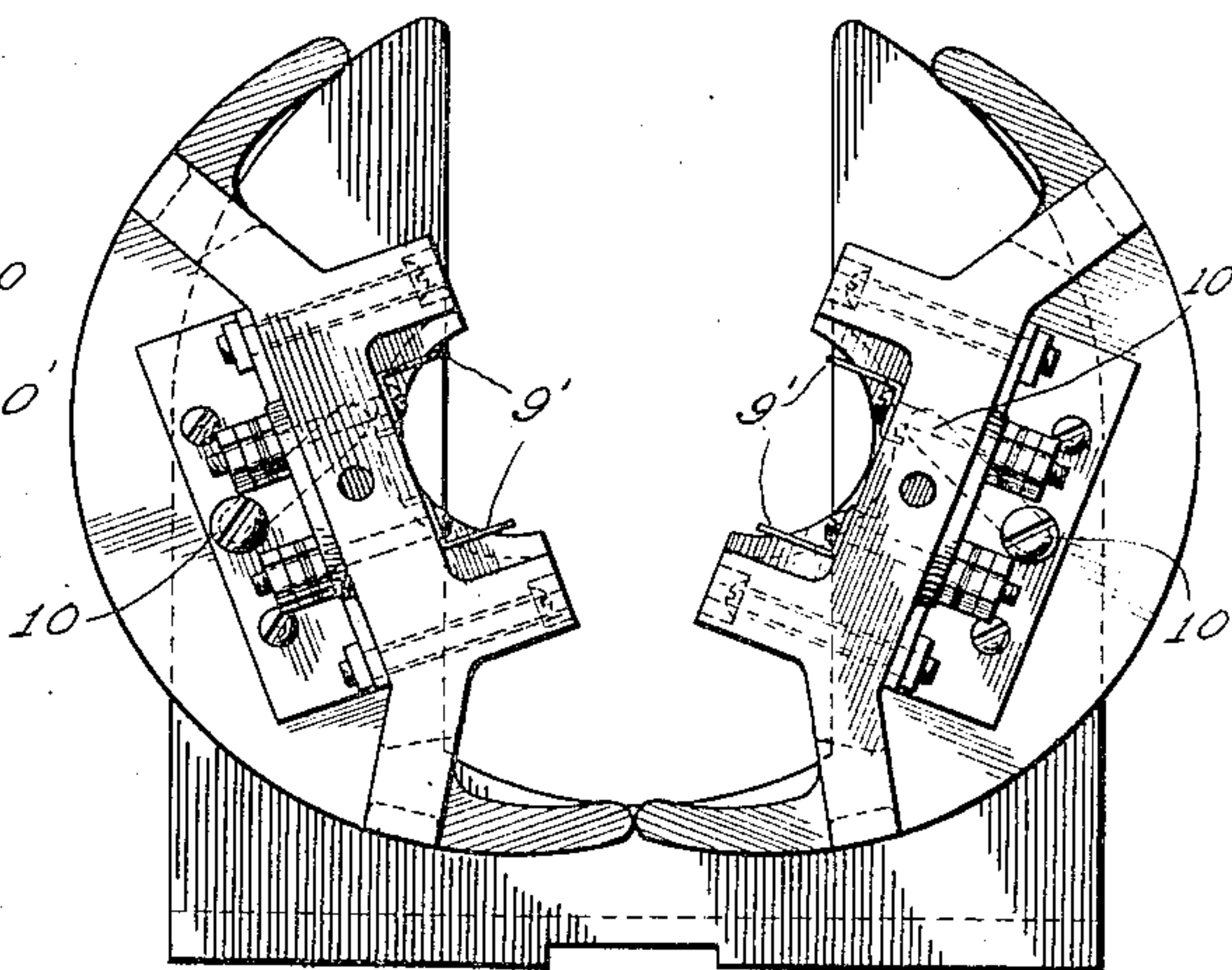


Fig. 4

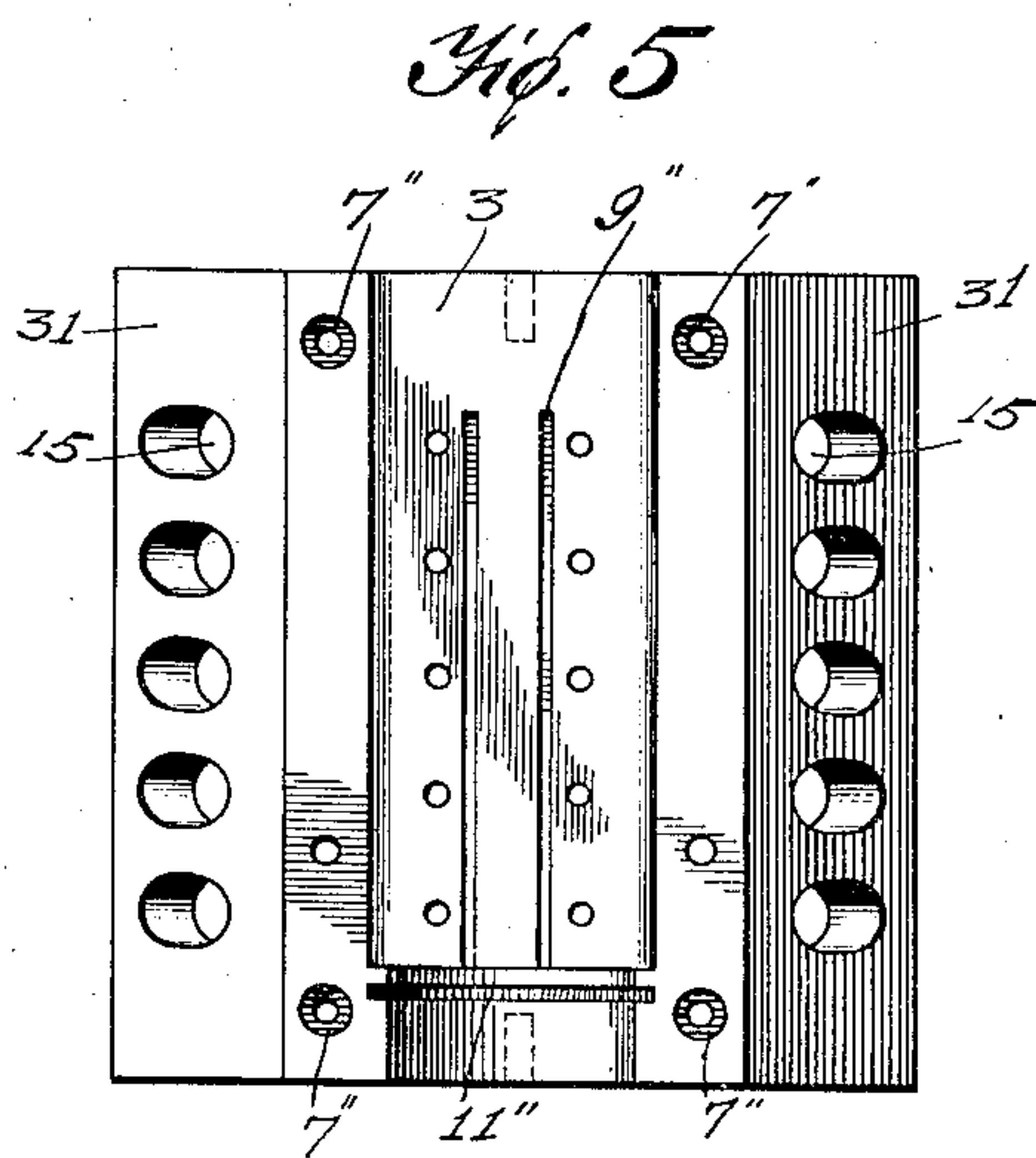


Fig. 5

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UNITED STATES PATENT OFFICE.

FRANK G. JONES, OF MUSKEGON, MICHIGAN.

CABLE-TERMINAL.

951,129.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed March 11, 1908. Serial No. 420,368.

To all whom it may concern:

Be it known that I, FRANK G. JONES, a citizen of the United States of America, and a resident of Muskegon, county of Muskegon and State of Michigan, have invented a new and useful Improvement in Cable-Terminals, of which the following is a specification.

My invention pertains to cable terminals of the types designed to be mounted upon poles for the termination of cables for distribution of wires, as in distribution to telephone substations. I provide an inclosing wall of porcelain or other insulating material, with binding post terminals mounted through the wall, the interior of the wall being substantially sealed except at top and bottom. At the bottom I provide a lead gasket as a convenient means for attaching and sealing the lead sheath of a cable, and when a cable has been so installed and its conductors connected to the binding post terminals, the contained space within the wall of the cable terminal is poured full of an insulating, weather-resisting compound. I then provide a shelf upon which the terminal may be mounted, and a cover for the terminal. Openings are provided for exit from this housing for wires leading from the outside ends of the binding posts and precautionary means are provided to prevent the beating in upon the binding posts of rain and snow.

I construct the walls of my improved cable terminal in vertical sections, providing means for attaching as many vertical sections as may be desired. I construct each vertical section of two halves so that in installing the device the halves may be separated to give ready access to the inner ends of the binding post terminals for connecting the cable conductors. I provide also a slotted support, attaching the halves of the terminal to the support by bolts through the slot, so that by means of the slot the terminal may be open and yet held in position convenient for connecting the cable conductors and for closing the terminal after the connections are made.

In the drawings: Figure 1 shows a side elevation of my terminal complete with supporting bracket and housing cover, the terminal being shown two sections in height, each section being for ten pairs of conductors, five on each half. Fig. 2 shows a section through Fig. 1 on the line A-A. Fig. 3 shows a section of Fig. 1 on the line B-B.

Fig. 4 shows a view similar to Fig. 3, but with the can housing removed, and with the halves of the terminal opened up for connection of the cable conductors. Fig. 5 shows detail of the block of porcelain or other insulating material.

In Figs. 1 and 2, 1 is a bracket of cast metal, 2 is a base block, 3 3' are wall blocks, the parts 2 3 3' being preferably of the same material and 3 3' being necessarily of insulating material; 4 is a sheet metal housing for protection of the device from the weather, being restrained from accidental removal by the chain 4' and being held in alinement by the periphery of the base block 2 and the wings 31 of the wall blocks. The base block 2 fits the housing cover very closely to form a weather seal within the bottom of the housing. This is particularly true of those portions of the base blocks 2 which lie opposite the walls carrying the binding post terminals. The wall blocks and base blocks are alined by dowels 5-5-5-5 and are united by tie plates, tie plates 6 6 being plane and tie plates 6' 6' being angle plates. The tie plates are attached to the wall blocks by bolts 7 and to the base blocks by bolts 7'; the wall blocks are recessed or countersunk for the heads or nuts of the bolts, as clearly shown in dotted lines in Fig. 2 and as shown at 7'' in Fig. 5, and the base blocks are similarly recessed as shown by dotted lines in Fig. 1.

It is evident that as many sections as may be desired may be installed by adding additional wall blocks, such as 3, 3' with dowels 5 and tie plates 6. A thin felt pad 8 is placed between the successive sections, this pad being in two halves to permit the separation of the two halves of the terminal wall after being built up.

Binding posts 9 are mounted through the wall blocks and provided with solder clips 9' on the inner surface of the wall. A groove 9'' (see Fig. 5) holds the clips in alinement while the binding post is being installed. Bosses 9³ are cast in the wall blocks to increase the insulation of the binding posts by surface conformation of the wall block.

The process of assembling my improved terminal for service is as follows: The bracket 1 is mounted permanently in the position which it is to occupy. Two base blocks 2, 2 and as many pairs of wall blocks

as are desired are then assembled upon the bracket by means of dowels, tie plate bolts and clamping bolts 10 10. The clamping bolts 10 10 pass through the angle tie plates, the base blocks and the slots 10' 10' of the cast metal base. The walls then are separated, the bolts 10 sliding in the slots 10' and the halves of the terminal walls are turned into the position shown in Fig. 4. In this position the clips 9' are readily accessible for soldering the cable conductors. The next step is to pass the end of the cable through the gasket 11 and to unite the gasket with the cable sheath by pouring solder into the gasket, or by a wiped joint, or by any means suitable. The cable conductors now are soldered to the solder clips, the bolts 10 are loosened and the two halves of the cable terminal are brought together in their final position; two felt pads 12 12 are placed between the faces of the wall blocks, and the lip of the gasket 11 is caused to enter the groove 11' of the lower pair of wall blocks, which groove the lip should fit closely. The two halves of the terminal now are united by through-bolts 13 13, two pairs of through-bolts being provided for each section, and the entire terminal is clamped finally in place upon the bracket by tightening the clamp bolts 10 10. The seal of the cable conductors now is completed by pouring the interior cavity formed by the wall blocks of the terminal full of an insulating, weather-resisting compound.

If desired, the assembly of the wall and base blocks, the soldering in of the cable conductors, and even the pouring of the compound filling, may be done before the terminal is attached to its supporting bracket, this being a convenient method of procedure where the terminal is to be mounted upon the pole. In such case the bracket is mounted upon the pole, the cable is cut to the proper length and the terminal is attached to the end thereof; the workman then ascends the pole with the terminal and mounts it upon its bracket. This process is permitted by special design of bracket of my invention, in which the supporting face of the bracket consists of two projecting jaws with such an opening between them as will permit the removal of the terminal with its downwardly extending cable intact.

The device being thus assembled, it will be noted from Fig. 3 that openings 14 14 exist between the projecting ends 2' of base blocks 2 and between the projecting arms 1' of the bracket 1. Jumpers are run from the binding posts 9 through holes 15 in the wings 31, thence downwardly through the openings 14 and thence are available for distribution to any desired points.

It is obvious that much latitude exists in the modification of the details of the terminal of my invention. I have set forth one

specific type of terminal constructed in accordance with my invention, but wish to claim broadly those novel features covered by the claims of this application.

Having thus described my invention, what I claim as new and desire to secure by United States Letters Patent is:

1. In a cable terminal, a sectional structure comprising a series of superposed sections of insulating material, each section comprising two separable halves and each section having binding post terminals mounted through the walls thereof, substantially as described.

2. In a cable terminal, a sectional structure comprising a series of superposed sections of insulating material, each section comprising two separable halves and each section having binding post terminals mounted through the walls thereof, and resilient pads between the successive sections, substantially as described.

3. In a cable terminal, a sectional structure comprising: a base block; a series of superposed sections of insulating material surrounding said base block, each section comprising two separable halves and each section having binding post terminals mounted through the walls thereof, said base block being formed also of two parts, each part identified with the separable halves of the superposed sectional structure, substantially as described.

4. In a cable terminal, a sectional structure comprising: a base block; a series of superposed sections of insulating material surmounting said base block, each section comprising two separable halves and each section having binding post terminals mounted through the walls thereof, said base block being formed also of two parts, each part identified with the separable halves of the superposed sectional structure; and projections on said base block parts for guides for jumper wires leading from said terminals, substantially as described.

5. In a cable terminal, a structure comprising a supporting bracket; base blocks; wall blocks carried upon said base blocks and detachable from said base blocks; a housing for said wall blocks, said wall blocks having projecting flanges serving as guides for said housing, and said base blocks serving as a further guide for said housing; binding post terminals mounted through said wall blocks between said guiding flanges, and said guiding flanges having openings for egress of jumper wires from said binding post terminals, substantially as described.

6. In a cable terminal, a structure comprising wall blocks separable vertically and having a cylindrical inner cavity between them when adjusted together and having a peripheral groove in the surface of the wall

blocks in said inner cylindrical cavity; and a gasket adapted to be attached to a cable sheath and having a projecting lip, the lip of said gasket engaging said groove in said wall blocks when said parts are adjusted together, and means for clamping together said wall blocks and said gasket, substantially as described.

7. In a cable terminal, a structure comprising wall blocks separable vertically and having a cylindrical inner cavity between them when adjusted together and having a peripheral groove in the surface of the wall blocks in said inner cylindrical cavity; a gasket adapted to be attached to a cable sheath and having a projecting lip, the lip of said gasket engaging said groove in said wall blocks when said parts are adjusted together; and through-bolts through said wall blocks and clamping together said wall

blocks and said gasket, substantially as described.

8. In a cable terminal, a bracket; a superstructure upon said bracket vertically separable into two parts, bolts clamping said superstructure to said bracket, said bracket having divergent slots and said separable parts being attached to said bracket by said bolts through said slots adjustably so that said parts may be adjusted to and from each other without complete detachment from said bracket, substantially as described.

Signed by me at Muskegon, county of Muskegon and State of Michigan, in the presence of two witnesses.

FRANK G. JONES.

Witnesses:

J. A. KENNY,

ALBERT O. ANDERSON.

Correction in Letters Patent No. 951,129.

It is hereby certified that in Letters Patent No. 951,129, granted March 8, 1910, upon the application of Frank G. Jones, of Muskegon, Michigan, for an improvement in "Cable-Terminals," an error appears in the printed specification requiring correction as follows: Page 2, line 91, the word "surrounding" should read *surmounting*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 29th day of March, A. D., 1910.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.