M. HAVENS, JR.

BRANCH BOX.

APPLICATION FILED MAY 20, 1911. RENEWED DEC. 30, 1912.

1,094,990. Patented Apr. 28, 1914.

Fig. 1.

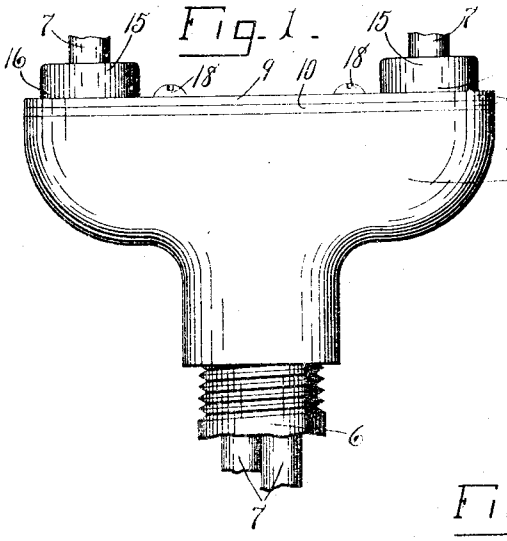


Fig. 2.

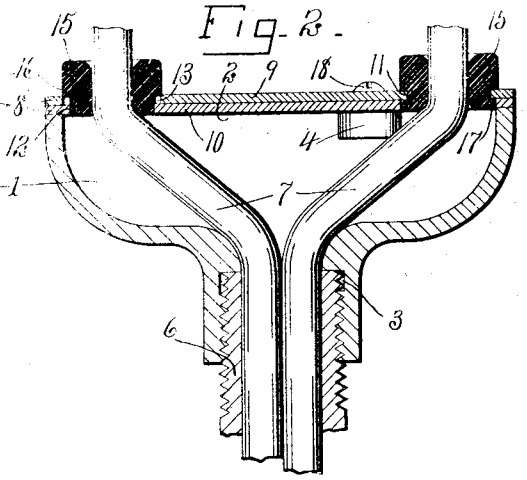


Fig. 3.

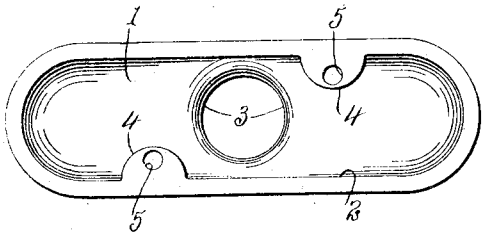


Fig. 4.

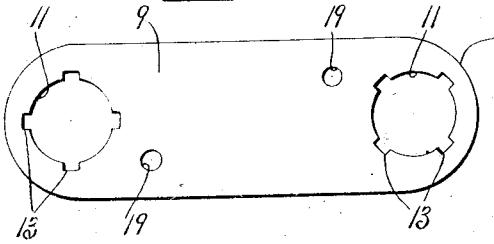


Fig. 5.

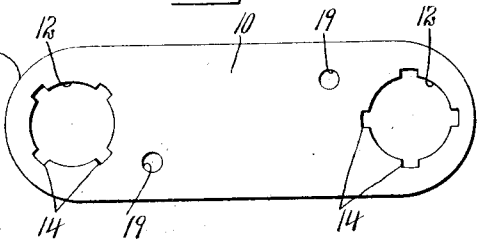


Fig. 6.

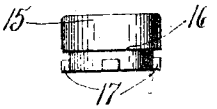
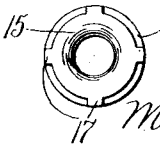


Fig. 7.



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MORTON HAVENS, JR., OF ALBANY, NEW YORK.

BRANCH BOX.

Specification of Letters Patent. Patented Apr. 28, 1914.

1,094,990.

Application filed May 20, 1911, Serial No. 628,409. Renewed December 30, 1912. Serial No. 739,379.

To all whom it may concern:

Be it known that I, MORTON HAVENS, Jr., of Albany, in the county of Albany and State of New York, have invented a certain new and useful Branch Box, of which the following is a specification.

My invention has for its object the production of a branch box for electric wires, which is particularly simple and economical in construction and highly efficient and durable in use; and to this end it consists in the novel combinations and means hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawing, in which like characters designate corresponding parts in all the views.

Figure 1 is an elevation of a preferable construction of my branch box, a conduit and a pair of wires being shown in operative relation thereto. Fig. 2 is a longitudinal sectional view, partly in elevation, of the parts illustrated in Fig. 1. Fig. 3 is a plan of the body of the branch box. Figs. 4 and 5 are, respectively, face views of the detached members of the closure. Figs. 6 and 7 are, respectively, elevation and inverted plan of one of the insulators.

The body 1 of my branch box is preferably hollow and elongated, and is provided with an opening 2 in one side, and with an inlet passage 3 communicating with the interior of the body. As illustrated, said body is provided on its inner face with diagonally arranged lugs 4 formed with threaded sockets 5.

A conduit 6 for the wires 7 extends into the passage 3, contiguous surfaces of the conduit and the wall of the passage being threaded for facilitating securement and detachment of said conduit. In the illustrated construction of my branch box, the passage 3 is shown disposed opposite the open side of the body, but it is apparent that the branch box may be provided with one or more passages extending either laterally or longitudinally.

The open side of the body 1 is provided with an elongated closure 8 which generally includes two separable members or plates 9, 10 arranged one at the inner side of the other and formed of any suitable material, as sheet metal, the lower member being mounted on the body and the upper member being mounted on the lower member, said members having at their ends substantially circular openings 11, 12 alined with each other and provided with lateral extensions 13, 14 arranged out of alinement with each other. Perforated substantially circular insulators 15 are inserted into the openings 11, 12 in the members 9, 10, and are provided with annular shoulders 16, reduced portions below the shoulders 16 and a plurality of separated projections 17 extending radially from said reduced portions and spaced apart from the annular shoulders. The shoulders 16 and the projections 17 coact with opposite faces of the outer member 9 to prevent axial movement of the insulators, and said projections 17 are arranged in the lateral extensions 14 of the openings 12 in the inner member 10 to prevent rotary movement of the insulators. Screws 18 are passed through openings 19 in the members 9, 10 and into the sockets 5, and thus serve to detachably secure the closure 8 to the body, and to also secure together the members 9, 10, comprising the closure 8, and thus lock said members 9, 10 from the movement relatively to each other necessary to permit detachment of the insulators 15.

In the preferable construction of my invention, the members 9, 10 are substantially similar and the lateral extensions of the openings in each member for the insulators 15 lead from dissimilar portions of such openings. Consequently, when one of said members is reversed endwise relatively to the other, the lateral extensions of such openings thereof are out of alinement with the lateral extensions of the like openings of the other member. In assembling the members of the closure, and the insulators, the projections 17 are passed through the lateral extensions 13 of the openings 11 in the outer member 9, and the insulators 15 are rotated substantially one-eighth of a revolution. The inner member 10 is then reversed endwise relatively to the outer member 9, thus alining the lateral extensions 14 of the openings 12 with the projections 17 of the insulators 15, whereupon the members 9, 10 are brought into close contact. The parts arranged as described are placed in operative position upon the open side of the body and are secured to such body by the screws 18.

When it is desired to remove one of the insulators 15, the screws 18 are withdrawn, the closure 8 is separated from the body 1, and the inner member 10 is moved rela-

tively to the outer member 9 in a direction substantially parallel to the axes of the insulators 15. As soon as the member 10 is detached from the insulators, the latter may be rotated until their projections 17 are alined with the lateral extensions 13, whereupon the insulators may be withdrawn axially from the member 9.

The construction and operation of my invention will now be readily understood upon reference to the foregoing description and the accompanying drawing.

What I claim is:—

1. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two plates, one lying upon the other, the plates being formed with alined openings, each opening having a lateral extension, the extension in one plate being out of alinement with the extension in the other plate, and a perforated insulator formed with means for coacting with opposite surfaces of one of the plates at the side of the extension in said plate to hold the insulator from endwise movement, and with means for coacting with the side walls of the extension in the other plate to hold the insulator from turning, substantially as and for the purpose described.

2. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two plates, one lying upon the other, the plates being formed with alined openings, and notches extending laterally from the openings, the notches of one plate being out of alinement with those of the other, and a perforated insulator formed with an annular shoulder, and a reduced portion below the shoulder, the reduced portion being formed with radial projections spaced apart from said annular shoulder, and located to enter the notches of the bottom plate and interlock with the margin around the opening in the top plate between the notches in such top plate, substantially as and for the purpose described.

3. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two plates, the lower plate being mounted on the body and the upper plate being mounted on the lower plate, the plates being formed with alined openings, each opening having a lateral extension, the extension in one plate being out of alinement with the extension in the other plate, and a perforated insulator formed with means for coacting with opposite surfaces of one of the plates at the side of the extension in said plate to hold the insulator from endwise movement, and with means for coacting with the side walls of the extension in the other plate to hold the insulator from turning, substantially as and for the purpose specified.

4. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two like plates, arranged one above the other, the lower plate being mounted on the body and the upper plate being mounted on the lower plate and separable therefrom, the plates being formed with alined openings, each opening having a lateral extension, the extension in one plate being out of alinement with the extension in the other plate, a perforated insulator formed with means for coacting with opposite surfaces of one of the plates at the side of the extension in said plate for holding the insulator from endwise movement, and with means for coacting with the side walls of the extension in the other plate for holding the insulator from turning, and means for securing said plates to the hollow body, said means also securing the plates together, substantially as and for the purpose set forth.

5. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two like plates, arranged one above the other, the lower plate being mounted on the body and the upper plate being mounted on the lower plate and separable therefrom, the plates being formed with alined openings, each opening having a lateral extension, the extension in one plate being out of alinement with the extension in the other plate, a perforated insulator formed with means for coacting with opposite surfaces of one of the plates at the side of the extension in said plate for holding the insulator from endwise movement, and with means for coacting with the side walls of the extension in the other plate for holding the insulator from turning, and screws passed through said plates and engaging the hollow body for securing the plates together and to said body, substantially as and for the purpose described.

6. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two like plates, each formed with two openings, and each of the openings having a lateral extension, the extensions of the openings in each plate projecting from dissimilar portions of said openings, whereby when one of the plates is reversed endwise relatively to the other, the extensions in said plate will be out of alinement with the contiguous extensions in the other plate, and perforated insulators formed with means for coacting with opposite surfaces of one of the plates at the side of the extensions in said plate for holding the insulators from endwise movement, and with means for co

acting with the side walls of the extensions in the other plate for holding the insulators from turning, substantially as and for the purpose specified.

7. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two like plates, each formed with two openings, and each of the openings having a lateral extension, the extensions of the openings in each plate projecting from dissimilar portions of said openings, whereby when one of the plates is reversed endwise relatively to the other, the extensions in said plate will be out of alinement with the contiguous extensions in the other plate, perforated insulators formed with means for coacting with opposite surfaces of one of the plates at the side of the extensions in said plate for holding the insulators from endwise movement, and with means for coacting with the side walls of the extensions in the other plate for holding the insulators from turning, and means for securing said plates to the hollow body, said means also securing the plates together, substantially as and for the purpose set forth.

8. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two like plates, arranged one above the other, the lower plate being mounted on the body and the upper plate being mounted on the lower plate, each plate being formed with two openings, and each of the openings having a lateral extension, the extensions of the openings in each plate projecting from dissimilar portions of said openings, whereby when one of the plates is reversed endwise relatively to the other, the extensions in said plate will be out of alinement with the contiguous extensions in the other plate, perforated insulators formed with means for coacting with opposite surfaces of one of the plates at the side of the extensions in said plate for holding the insulators from endwise movement, and means for coacting with the side walls of the extensions in the other plate for holding the insulators from turning, and means for securing said plates to the hollow body, said means also securing the plates together, substantially as and for the purpose described.

9. A branch box for wires comprising a hollow body formed with a passage and an open side, a closure for the open side of the body, said closure including two members, each having a pair of openings provided with lateral extensions, said extensions leading from dissimilar portions of the openings, and one of the members being reversed endwise relatively to the other and having its openings alined with the openings of the other member, and the lateral extensions of its openings arranged out of alinement with the lateral extensions of the corresponding openings of the other member, perforated insulators inserted into the openings of the members and provided with projections engaged with a face of one of the members and arranged in the lateral extensions of the openings in the other member, and screws passed through said members and coacting with the body for securing the closure to the body, substantially as and for the purpose described.

In testimony whereof, I have hereunto signed my name in the presence of two attesting witnesses, at Albany, in the county of Albany, in the State of New York, this 10th day of May, 1911.

MORTON HAVENS, JR.

Witnesses:
F. R. MEGINNISS,
EMILY HUMPHREYS.