T. E. MURRAY.

JUNCTION BOX.

APPLICATION FILED JUNE 21, 1909.

945,856. Patented Jan. 11, 1910.

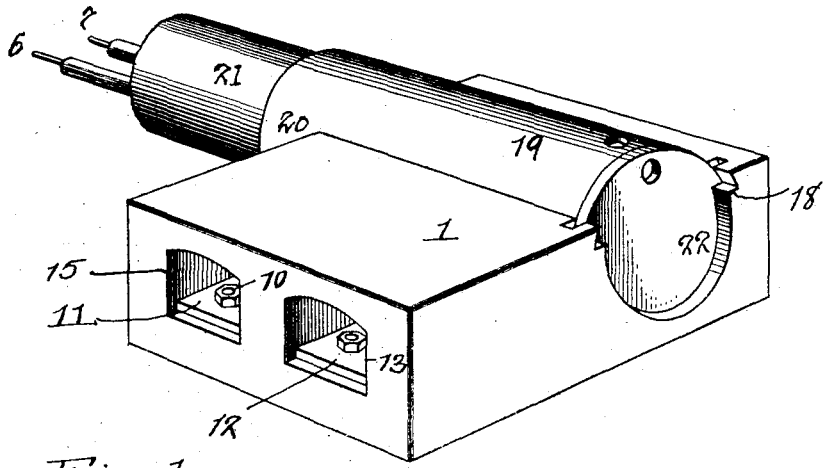

Fig. 1.

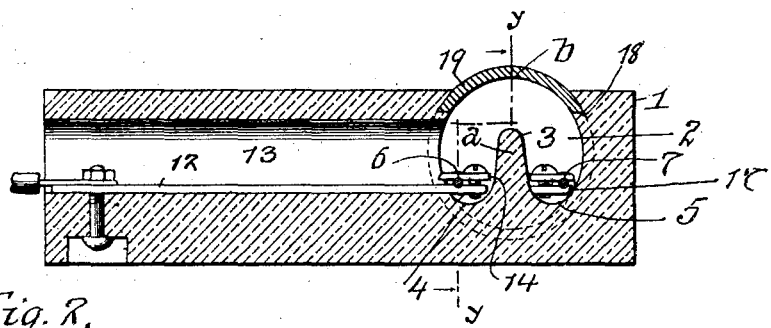

Fig. 2.

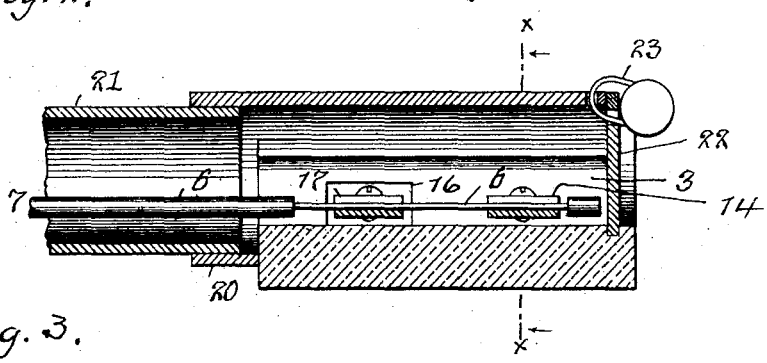

Fig. 3.

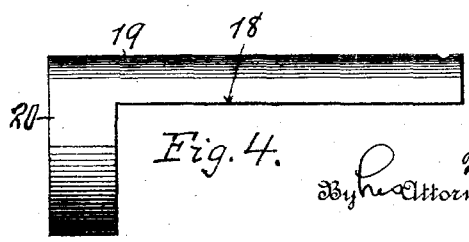

Fig. 4.

Witnesses,
May P. McGarry.
Elsie Albro.

Inventor
Thomas E. Murray
By his Attorney
Paul Benjamin

UNITED STATES PATENT OFFICE.

THOMAS E. MURRAY, OF NEW YORK, N. Y.

JUNCTION-BOX.

945,856. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed June 21, 1909. Serial No. 503,299.

To all whom it may concern:

Be it known that I, THOMAS E. MURRAY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Junction-Boxes, of which the following is a specification.

The invention relates to junction boxes for circuit conductors, and consists in the construction as hereinafter more particularly pointed out in the claims, whereby access to the junctions and possible tampering with the same is prevented.

In the accompanying drawings—Figure 1 is a perspective view of my junction box. Fig. 2 is a transverse section on the line x, x, of Fig. 3. Fig. 3 is a longitudinal section on the line y, y, of Fig. 2. Fig. 4 is a side elevation of the cover.

Similar characters of reference indicate like parts.

1 is a block of refractory material, such as porcelain. In said block is formed a transverse channel 2, having a partition 3, the opposite surfaces of which preferably curve into the inner circumferential periphery of the groove to form two concavities 4, 5 in which lie the circuit wires 6, 7. The circumferential periphery of the groove is struck from a center a and with a radius a, b greater than the distance of said center from the upper surface of the block 1.

The main conductors 8, 9 are connected by bolts 10 to metal strips 11, 12. Strip 12 extends through a passage 13 in block 1 and is connected to wire 6 by clamp 14. Strip 11 extends through a passage 15 in block 1 and through an opening 16 in partition 3 and is connected to wire 7 by clamp 17.

In the circumferential periphery of groove 2 and near the upper edges are formed shoulders 18 whereby dovetail recesses are produced to receive the longitudinal edges of the cover 19. Said cover is a mutilated cylinder or tube of metal, and at its end has a truly cylindrical portion 20. After the connections are made between the conductors 6, 7 and 8, 9, said cover is slid longitudinally into place upon the shoulders 18 until the cylindrical end portion 20 meets the case. The usual inclosing tube 21 for the main wires 8, 9 is then fitted into the end portion 20. In order to close the opposite end of the channel 2, I provide a circular disk 22 of suitable size, the edge of which is inserted in a peripheral groove in said channel outside of partition 3. Said disk is connected to the cover 19 by the shackle of a seal fastening 23, the said shackle being passed through holes in the disk and cover.

By this construction access to the junctions of the conductors is completely prevented, for the cover 19 being engaged in dovetail recesses cannot be removed other than by sliding it longitudinally. It cannot, however, be slid in one direction, because of the bearing of its cylindrical end portion 20 upon the case, and it cannot be slid in the other direction, because of the seal fastening 23. Any mutilation or removal of said fastening, of course, gives the desired indication of tampering.

I claim:

1. In a junction box, a block having a channel and provided with dovetail grooves near the upper edges of said channel, circuit conductors in said channel, a cover sliding in said grooves, and a seal device engaging said cover and preventing sliding thereof after said cover is seated in said grooves to close said channel.

2. In a junction box, a block having a channel and provided with dovetail grooves near the upper edges of said channel and a peripheral groove near one end thereof, circuit conductors in said channel, a cover sliding in said dovetail grooves, a removable plate seated in said peripheral groove, and a seal device engaging said cover and said plate.

3. In a junction box, a block having a transverse channel having its circumferential periphery struck on a radius greater than the distance of the center from the upper surface of said block, and provided with grooves near the upper edges of said channel, circuit conductors in said channel, a cover concentrically curved sliding in said grooves, and means for preventing sliding movement of said cover after the same is seated in said grooves to close said channel.

4. In a junction box, a block having a transverse channel with its circumferential periphery struck on a radius greater than the distance of the center from the upper surface of said block, and provided with grooves near the upper edges of said channel, circuit conductors in said channel, a cover in the form of a mutilated cylinder having the longitudinal edges of its muti-

lated portion sliding in said grooves, and the circumferential edge of the unmutilated portion bearing on a face of said block, and means for preventing sliding of said cover in direction to separate said circumferential edge and face.

5. In a junction box, a block having a transverse channel with its circumferential periphery struck on a radius greater than the distance of the center from the upper surface of said block, and provided with grooves near the upper edges of said channel, circuit conductors in said channel, a cover in the form of a mutilated cylinder having the longitudinal edges of its mutilated portion sliding in said grooves, and the circumferential edge of its unmutilated portion bearing on a face of said block, and means for locking said cover to said block after said cover is seated in said grooves and thereby preventing sliding motion of said cover.

In testimony whereof I have affixed my signature in presence of two witnesses.

THOMAS E. MURRAY.

Witnesses:

MAY T. MCGARRY,

GERTRUDE T. PORTER.