No. 665,676. Patented Jan. 8, 1901.

E. T. GREENFIELD.

JUNCTION BOX FOR ELECTRICAL CONDUCTORS.

(Application filed July 9, 1900.)

(No Model.)

Fig. 1.

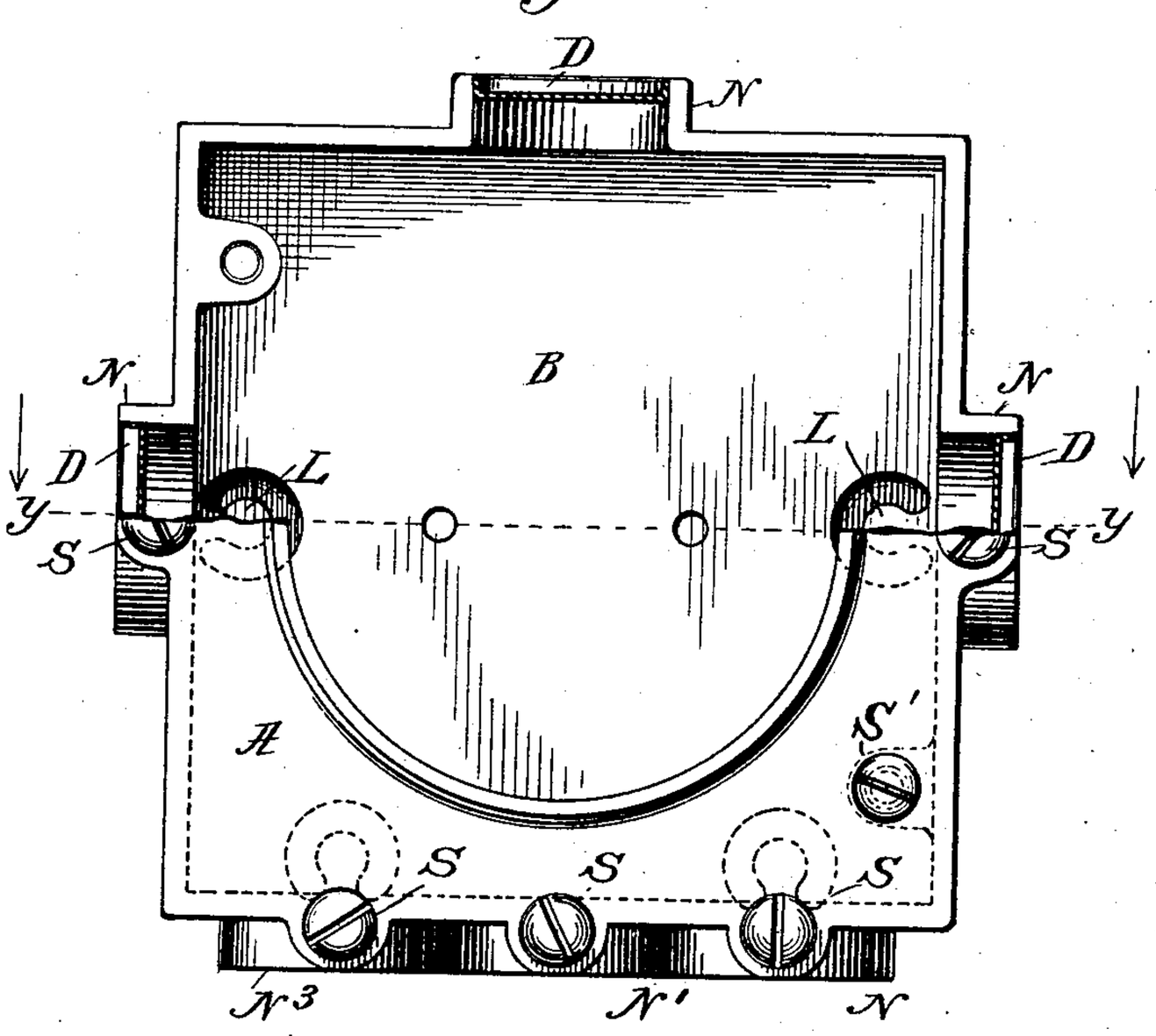

Fig. 2.

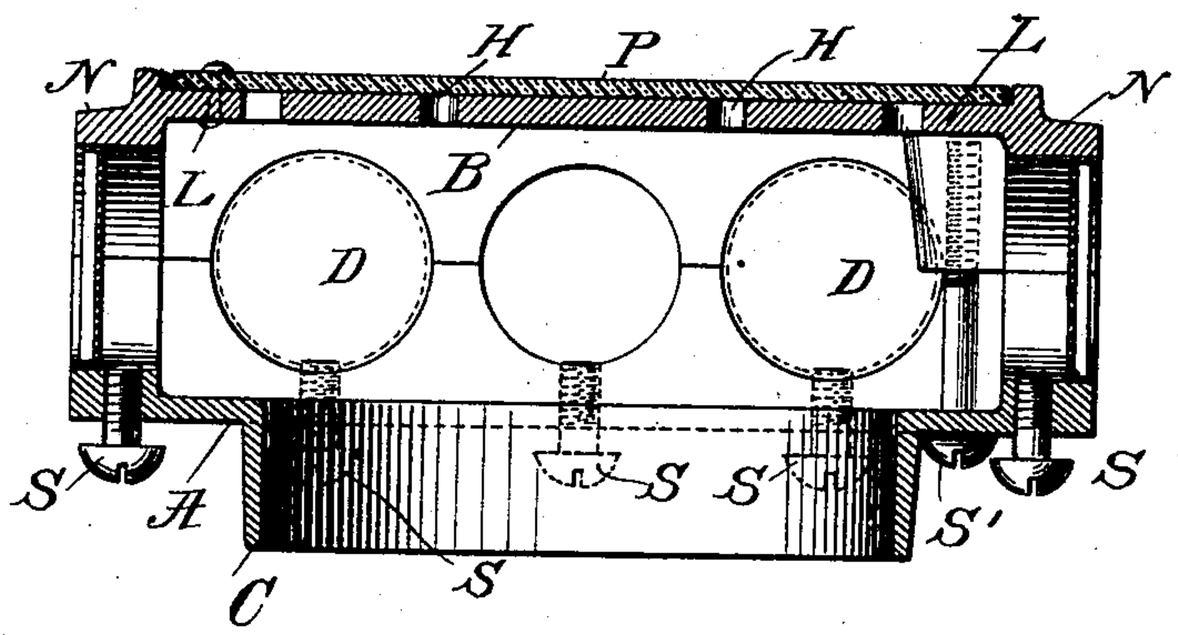

Fig. 2a.

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UNITED STATES PATENT OFFICE.

EDWIN T. GREENFIELD, OF NEW YORK, N. Y.

JUNCTION-BOX FOR ELECTRICAL CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 665,676, dated January 8, 1901.

Application filed July 9, 1900. Serial No. 22,953. (No model.)

To all whom it may concern:

Be it known that I, EDWIN T. GREENFIELD, a citizen of the United States, residing at New York, borough of Manhattan, county of New York and State of New York, have made a new and useful Improvement in Junction-Boxes for Electrical Conductors, of which the following is a specification.

My invention is directed particularly to improvements in junction-boxes like those disclosed in prior United States Patents, No. 642,521, granted to me on the 30th of January, 1900, and No. 651,484, granted to me on the 12th day of June, 1900.

I have found in connection with the manufacture and use of two-part cast junction-boxes, one of said parts having integral disks which are detached by breaking them down or out, as disclosed in the before-mentioned patents, that it often occurs that the box is broken and therefore rendered practically useless. I have also found that in the use of the box disclosed in United States Patent No. 651,484, where there is a relatively large number of openings in the bottom thereof, dust or dirt is liable to be admitted through said openings.

My present improvement has for its objects, first, the provision of detachable disks or cups inserted in the holes or openings for the conduit and other tubes or pipes of metallic junction-boxes, which detachable disks are made, preferably, in the form of thin metallic cups, and, second, the provision of a thin false bottom which may be applied to one of the surfaces of that portion of the junction-box which is secured to the wall, the function of said bottom being to effectually close up all the openings therein which are not actually used, and thus avoid the ingress of dust or dirt.

Referring now to the drawings for a full and clear understanding of my improvement, such as will enable others skilled in the art to construct and use the same, Figure 1 is a part plan, part sectional view of my novel junction-box; and Fig. 2 is a sectional view of the same, taken through the body of the box on the line *y y*, Fig. 1, and as seen looking thereat from the top toward the bottom of the drawings. Fig. 2ª is a perspective view of one of the detachable disks or cups.

Referring now to the drawings, A represents the outer and B the inner half of a two-part junction-box made, preferably, of cast metal and each provided with outwardly-extending half-necks N N N and N′ N³, cone-shaped within from the outer to the inner ends thereof, the arrangement being such that when the two parts of the box are secured together by screws S′ tubular cone-shaped inlets are provided for the inner ends of the conduit tubes or pipes to be connected with the box.

C is a supporting-neck for the fixture-canopy, the same being integral with the outer half A.

S S S are set-screws adapted to permanently secure the ends of the conduit tubes or pipes in place when once located in position.

D D D are metallic disks or cups, illustrated in perspective view in Fig. 2ª and adapted when put in position, as shown in Figs. 1 and 2, to effectually close all of the inlets in the necks N N N N′ N³.

H H are holes or openings in the bottom of the box, there being provided also a series of lugs L in the bottom of the box located beneath the inner ends of the necks N, as shown on the right and left, Fig. 1, the function of said lugs being for the purpose of securing the inner ends of the conduit tubes or pipes by wire in the same manner as disclosed in my prior patent, No. 651,484, above referred to.

For the purpose of effectually closing up the bottom of the box, so as to prevent any ingress of dust or dirt through the screw-holes and the slots formed around the aforesaid lugs, I provide a thin false bottom P, made, preferably, of prepared paper, and secure the same to the box by rivets, as shown, it being an easy matter for the workman putting the box in place to puncture this false bottom through the openings in the regular bottom B, as desired, thereby insuring an absolutely dust-tight box. In the use of this form of box the lower half thereof is secured in place by screws, as described, after which the ends of the desired inleading-conduits are put in place in the cone-shaped necks N and the outer half of the box secured by the screws S′. (See Fig. 2.) The detachable disks or cups D are then driven into position in the unused necks, as shown, and in the event of its becoming necessary to add in the

future any additional conduit tubes or pipes it is only necessary to remove such of the disks D as may be required.

The generic novelty of my invention lies in the construction of a junction-box having inleading necks or inlets in combination with detachable disks or cups adapted to close such of said inleading necks or inlets as may not be needed at the time of putting the box in place and making the same available for the insertion of further conduit-tubes, as the necessities of the case may demand.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A junction-box provided with necks and means for securing the ends of the conduit tubes or pipes; in combination with detachable disks or cups for closing the same, substantially as described.

2. A two-part junction-box having half-necks or inlets for supporting or sustaining the ends of the conduit tubes or pipes; in combination with detachable disks or cups for closing the necks or inlets; together with means for securing the ends of the conduits to the box, substantially as described.

3. A junction-box provided with a number of openings in its bottom; in combination with a thin false bottom adjacent thereto, substantially as described.

4. A two-part junction-box, one part of which is provided with a number of openings and a series of half-necks, the other part being provided with a neck for supporting the fixture-canopy and a corresponding series of half-necks; in combination with a thin false bottom adjacent to the first-named part, substantially as described.

5. A two-part junction-box, one part of which is provided with a number of openings and a series of half-necks, the other part being provided with a neck for supporting the fixture-canopy and a corresponding series of half-necks; in combination with a thin false bottom adjacent to the first-named part and a series of detachable disks or cups adapted to close the ends of the necks, substantially as described.

6. A junction-box provided with a series of cone-shaped inlets, in combination with a series of detachable disks adapted to be inserted in said inlets from the outer ends thereof, substantially as described and shown.

7. A two-part junction-box provided each with a series of half-necks or inlets cone-shaped interiorly from the outer toward the inner ends thereof and means for securing them together; in combination with a series of detachable disks adapted to be inserted in the outer ends of said cone-shaped necks or inlets, substantially as described.

In testimony whereof I have hereunto subscribed my name this 6th day of July, 1900.

EDWIN T. GREENFIELD.

Witnesses:
C. J. KINTNER,
W. T. RUETE.