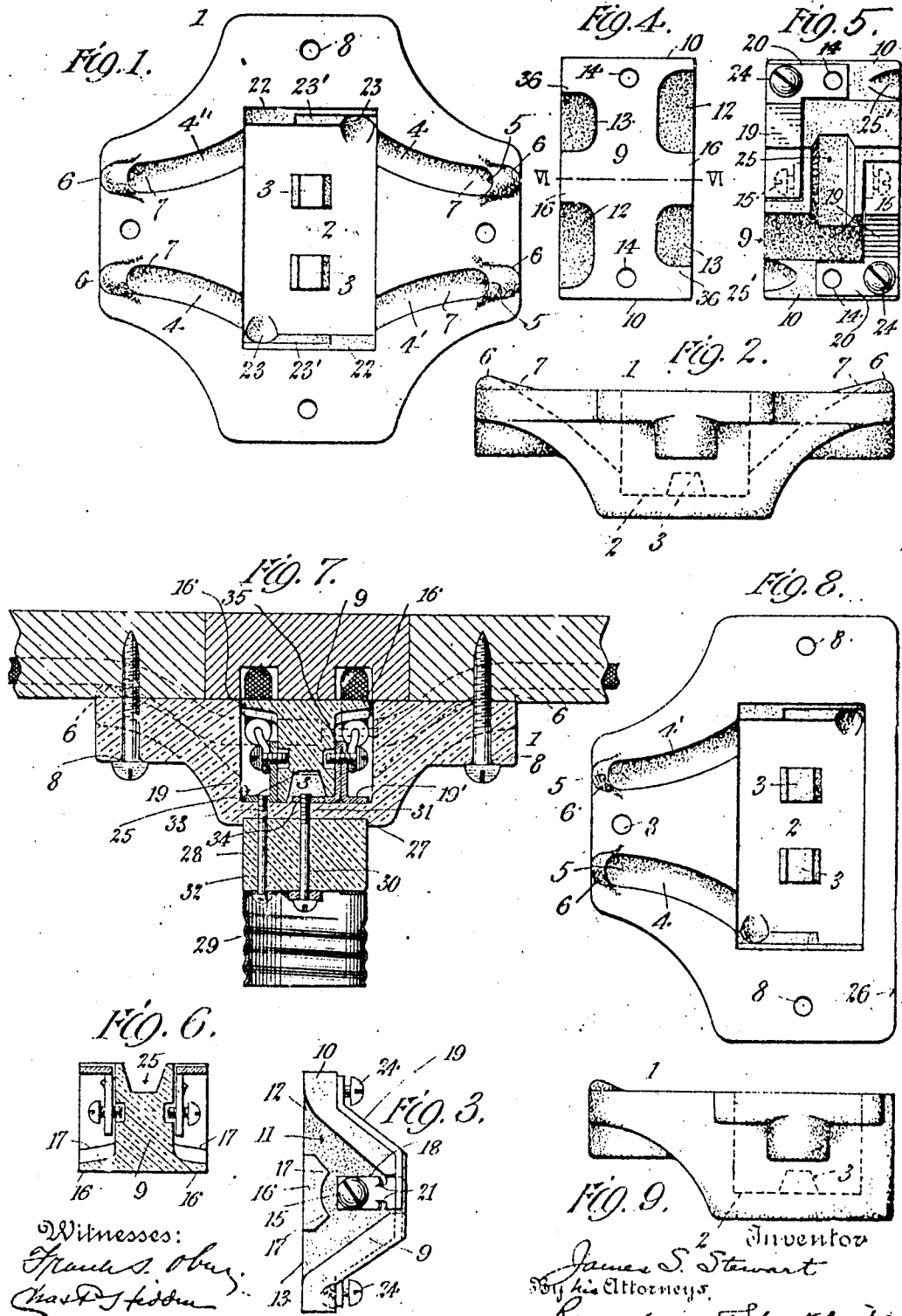


J. S. STEWART.
 COMBINED TABLET OR CROSSOVER AND RECEPTACLE.
 APPLICATION FILED MAR. 23, 1910.

998,810.

Patented July 25, 1911.



UNITED STATES PATENT OFFICE.

JAMES S. STEWART, OF NEW YORK, N. Y., ASSIGNOR TO ANNIE STEWART, OF NEW YORK, N. Y.

COMBINED TABLET OR CROSSOVER AND RECEPTACLE.

998,810.

Specification of Letters Patent.

Patented July 25, 1911.

Application filed March 23, 1910. Serial No. 551,193.

To all whom it may concern:

Be it known that I, JAMES S. STEWART, a citizen of the United States, residing at the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Combined Tablets or Crossovers and Receptacles, of which the following is a full, clear, and exact description.

This invention relates to that class of devices known as tablets and cross-overs, such devices being used for tapping off from electric light wires or the like, or for cross-connecting the wires of different circuits; the use of devices of this character being in many localities obligatory by statutory enactment and further being necessitated by the rules of the underwriters.

My invention has for its object the simplification of devices of this character, and the provision of inexpensive appliances by the use of which certainty against short-circuiting at such points is assured.

My invention also contemplates the combination of a tablet or cross-over with a receptacle or rosette.

Other novel features of my invention will be hereinafter set forth and particularly pointed out in the appended claims.

Referring to the drawings which form a part hereof and in which like characters of reference designate like parts throughout the several views: Figure 1 is a plan of cross over cap embodying features of my invention. Fig. 2 is a side elevation of said cap. Fig. 3 is a side elevation of the cross-over base-block to which the several leads are respectively connected. Fig. 4 is a plan of the said base-block. Fig. 5 is a bottom view of the same. Fig. 6 is a transverse section taken on line VI-VI of Fig. 4. Fig. 7 is a transverse section of the assembled parts, illustrating the application of a lamp receptacle to, for example, my cross-over cap; and Fig. 8 is a plan of a tablet cap very similar in general construction to the cross-over cap above referred to. Fig. 9 is a side elevation of said tablet cap.

Considering now the simple cross-over, the cap whereof has been designated 1. This cap is provided with a recess 2, preferably rectangular in cross-section; said recess extending nearly through the said cap as indicated in Fig. 2. Upon the bottom of this recess are provided lugs 3 which,

if the device in question be merely a simple cross-over, may be formed as a single lug, if so desired. Grooves 4 and 4', the bottom walls of which slope gradually upward from a point adjacent the bottom of recess 2, extend upwardly and outwardly from said recess and gradually approach each other in the manner shown in Fig. 1, for the purpose of bringing the circuit wires which may be inserted therein into proper spaced relationship with respect to each other; the spacing between the extremities 5 of said grooves being substantially that of the grooves in standard molding. I prefer to provide also small protuberances or lugs 6 at the extremities of each of the said grooves and substantially in alignment therewith, the ends of the grooves in fact sloping upward over the inner sides of said protuberances, as shown at 7. These lugs serve to force the insulated circuit wires well up into the molding grooves. The cap is provided with a plurality of screw holes 8, by means of which it may be properly secured to the abutting sections of molding. This cap is preferably made of porcelain or some other insulating material, and a base 9 of similar material is adapted for insertion into the said recess 2, so as to substantially fill the same. This base has the form, more or less, in longitudinal cross-section, of a trapezoid with flanges 10 outwardly extending from the ends thereof. Each of the sides of the trapezoidally shaped mass is recessed or grooved as at 11 to a sufficient depth to afford free entrance therein of an insulated conductor or circuit wire. One of the entrances to the grooves so formed is indicated at 12, and the corresponding exit at 13 in Fig. 4. And it will be observed that the mouth of the groove at 12 is somewhat larger than the corresponding orifice 13. Suitable screw holes 14 afford means for supporting said base from a molding, and the conducting wires may be led downwardly from the grooves of said molding through the respective apertures 12 around the groove 11, and up again at 13 into the molding groove. Each of the wires so bent or led has the insulation removed therefrom at a point substantially half-way of the length of the bent portion, so that the bared portion of the wire may be clamped under or around the screw 15, one of which is disposed upon each side of the base 9.

screwing into recesses in the material thereof so that the head of each of the said screws is substantially in the center of one of the grooves 11. The projection 16 formed by the material of the base which is left above the said groove, aids in retaining the conductor in said groove; downwardly extending points 17 of said projection engaging the circuit wire and positioning the same for contact with the head of screw 15. Screws 15 are each in mechanical and electrical contact with a metallic tongue 18, which forms an arm or offset from a conductive bar 19, one of which is disposed upon each of the respective outer sides of the base. Bars 19 are somewhat Z-shaped as viewed laterally, the middle portion of each bar lying along a sloping edge of the trapezoidal base. As viewed in Fig. 5, the said bars 19 appear L-shaped, the short arm 20 of the L, extending partially over one of the flanges 10. This member may be made of sheet metal and is bent into proper form by means of suitable dies; the tongue 18 being bent downwardly so as to adapt the same for contact with a flattened portion of the groove 11, said tongue being further provided with the usual prongs 21 which aid in seating the conductor in proper position. The recess in cap 1 may be formed with a shelf or ledge 22, at each end thereof, as shown in Fig. 1, and the cap may be further cut away as at 23 in order to clear the head of the screw 24 which is in engagement with the bar 19. The cap should also be cut away or recessed at 23' to afford clearance for the short arms 20 of bars 19. It is obvious of course that the ledges 22 need not be provided, but said ledges serve to steady the cap in position upon the base by their engagement with the lower surface of the respective flanges 10 of the base block. The bottom surface of the trapezoidal base is grooved at 25 for engagement with the lugs 3 which further serve to steady the cap in place upon its base.

The leads which are adapted to pass through the grooves 4 are afforded space between the base and the cap by reason of the trapezoidal configuration of said base; such leads passing over the respective flanges 10 and having the insulation removed from a portion of each of the same in order to make electrical contact with their respective screws 24. It will hence be seen that the base may be placed in position upon one line of molding and properly secured thereto by means of screws, the wires emerging from the molding being bent downwardly around the projections 16 upon each side of the base; and being respectively secured in electrical connection with the bars 19 upon either side of said base. The pair of circuit wires coming at right angles to those first mentioned pass downwardly through grooves 4 and through between the spaces

provided between the sloping faces of the base and its cap, being in turn respectively secured in electrical connection by means of screws 24 with the short lateral arm 20 of each of the respective bars 19. Thus a lead approaching through the upper right hand groove 4 shown in Fig. 1, will be in electrical connection with the bar 19 shown to the left of Fig. 5, and will hence be also in electrical connection with the right hand member of a pair of wires disposed at right angles to those before mentioned. In corresponding fashion the wire entering through the lower right hand groove 4' will be in electrical connection with the left hand member of the pair of circuit wires. Recesses 25' afford clearance for the respective leads or circuit wires which proceed through grooves 4' and it should be here noted that recesses 25' aid in disposing the respective leads in their predetermined positions between the oblique walls of the base and the shorter walls of the cap recess, when the cap is placed in position on said base. It should also be observed that the cross-over cap and base are both symmetrical.

Referring now to Fig. 8, it will be seen that I have provided a tablet which is of substantially the same general construction as the cross-over above described, the base being identical with that used in connection with said cross-over and the only alteration in the cap being the formation of the latter with a straight side at 26, in lieu of the grooved extension; such extension upon the other side of the tablet being, however, identical with the corresponding portion of the cross-over.

I may provide my cross-over or tablet cap with means for the application of a lamp receptacle, rosette, or like appliance thereto, and Fig. 7 illustrates such a structure. The bottom of the cap, in this instance a cross-over, although the same obviously might have been the cap of the tablet equally as well, is recessed as at 27 for the reception of a receptacle base 28, which is adapted to support the usual threaded shell 29 into which the lamp or other appliance is socketed. The center pin or screw 30 of the lamp receptacle extends up through the receptacle base 28 into threaded engagement with an aperture in the bottom of the cross-over or tablet cap; the threaded end 31 of such screw extending entirely through the insulating material of said cap. In corresponding fashion, the screw 32 extends upward from the shell 29 through base 28, and is in turn threaded into a second aperture 33 in the bottom of said cap. When the parts are in assembled relationship as shown in Fig. 7, screw 32 is in electrical contact with the flat portion of bar 19; while screw 30 is correspondingly in electrical contact with an extension 34 of the bar 19 upon the other

side of the tablet or cross-over base. Bar 19' is substantially the same as bars 19 here-
 inbefore referred to, except that the tongue
 18 does not terminate like that shown in
 5 Fig. 3; but is bent back upon itself as at 35,
 and is finally angularly offset as at 34 to
 provide for electrical connection with the
 centrally disposed pin 30 in the manner
 above described.

10 I particularly wish to direct attention to
 a feature, not previously referred to at
 length, namely, that the configuration of
 the cap and base is such that the outgoing
 wire which emerges through the upper right
 15 hand groove 4 of the cap shown in Fig. 1,
 can by no possibility contact with the corre-
 sponding outgoing wire which is emerging
 from the adjacent orifice 13 in the base; since
 by reason of the relatively small size of said
 20 aperture; the wire disposed in groove 11,
 will be sharply bent and held out of contact
 with the wire in groove 4, by the posterior
 wall 36 of said orifice 13.

It will thus be seen that my tablet and
 25 cross-over construction, while extremely
 simple and inexpensive of manufacture, af-
 fords every facility for making connections
 thereto from the respective circuit wires,
 and further provides means whereby a ro-
 30 sette or lamp receptacle may be secured
 thereto; drawing current from the respective
 wires with which the base conductor bars are
 in electrical contact.

It is obvious, that when the tablet is used,
 35 the incoming lateral wires do not extend
 therethrough; the ends thereof being merely
 connected to the respective screws or binding
 posts 24.

Having described my invention, what I
 40 claim, is:

1. In an electrical appliance adapted to
 be positioned on a molding having longitudi-
 45 nal grooves, an insulating base of substan-
 tially trapezoidal cross-section having re-
 cesses in the respective sides thereof adapted
 for the reception of circuit wires, conductive
 bars secured to the said base, having lateral
 tongues upwardly extending into said
 50 grooves, said tongues carrying binding posts
 and a portion of each of the bars proper also
 carrying a binding post, and a recessed cap
 having grooves outwardly extending from
 the recess therein adapted for the reception
 of circuit wires cooperating with said base
 55 to the end that the respective sets of wires
 may be directed toward their respective
 binding posts.

2. In an electrical appliance adapted to
 be positioned at the junction of two diver-

gent lines of circuit-wire moldings, an in- 60
 sulating base having overhanging ends and
 recessed sides, the latter being adapted for
 the reception of circuit wires from one of the
 moldings, an insulating cap having a base-
 receiving-recess therein and grooves opening 65
 into said recess, the overhanging ends of the
 base co-acting with the walls of the recess,
 when the parts are in assembled relationship,
 to form conduits for the wires extending
 from a second molding through the grooves 70
 of the cap, and the recessed sides of the base
 co-acting with walls of the recess in the cap
 to hold the first mentioned wires in place
 and to insulatingly space the same from the
 second mentioned wires. 75

3. In an electrical apparatus adapted to
 be positioned on a molding having circuit
 wires, an insulating base, conductive ele-
 ments carried by said base for affording
 operative electrical cross connection between 80
 two angularly disposed and distinct sets of
 circuit wires, a cap for said base, spaced
 from the respective angularly disposed walls
 thereof at predetermined points to accommo-
 date said wires, and a contact making device 85
 carried by said cap, parts of which are in
 electrical connection respectively with the
 conductive elements aforesaid and the ter-
 minals of an electrical appliance.

4. In an electrical apparatus adapted to 90
 be positioned on a molding having circuit
 wires, an insulating base, conductive ele-
 ments carried by said base for affording
 operative electrical cross connection between
 two angularly disposed and distinct sets of 95
 circuit wires, and a receptacle base having
 means for rigidly supporting the same con-
 tiguous to said insulating base, the re-
 spective terminals of said base being in
 electrical communication with said conduc- 100
 tive elements.

5. In an electrical appliance adapted to
 be positioned on a grooved molding having
 circuit wires, an insulating block having
 projections thereon insertible into and en- 105
 gageable with the grooves of said molding
 proximate the points where the circuit wires
 emerge therefrom, the bottom faces of said
 projections bearing against the groove held
 portions of the wires to hold said portions 110
 down firmly in the bottom of the molding
 grooves.

In witness whereof, I subscribe my sig-
 nature, in the presence of two witnesses.

JAMES S. STEWART.

Witnesses:

WALDO M. CHAPIN,
 JAMES DE ANTONIO.