No. 668,862. Patented Feb. 26, 1901.

J. O. THERIEN & A. E. GREGORY.

MOLD BOX OR FORM FOR CONDUIT JOINTS.

(No Model.) (Application filed Oct. 11, 1900.)

FIG. 1.

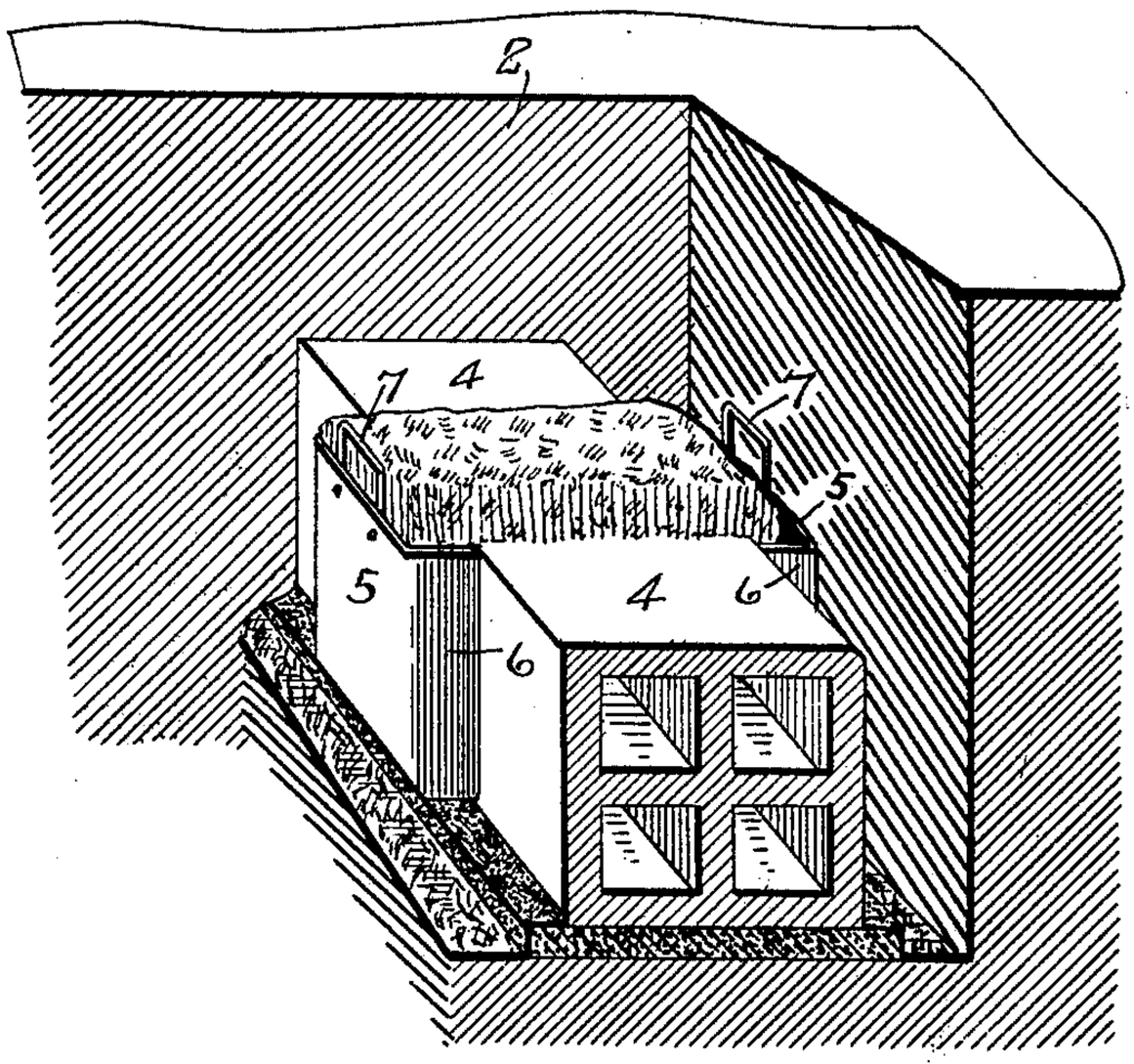


FIG. 2

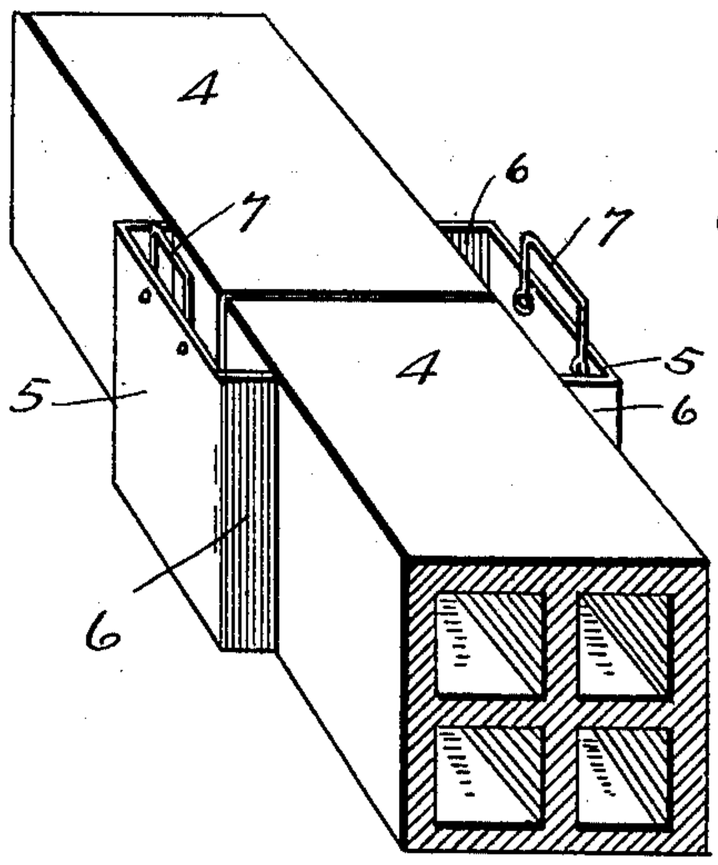
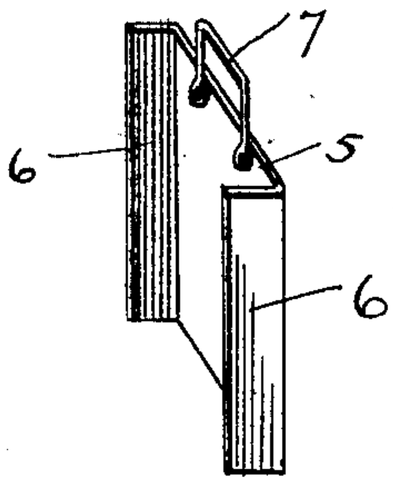


FIG. 3



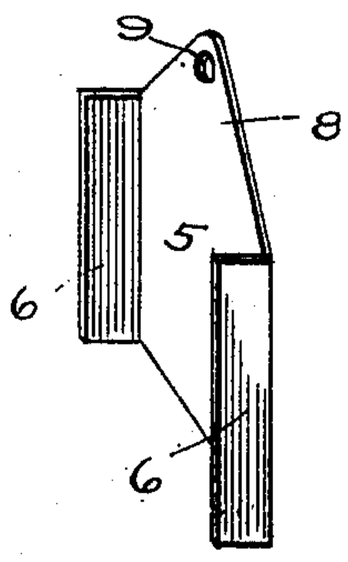


FIG. 4

Witnesses
E. G. Staude
Richard Park,

Inventors
Joseph O. Therrien
Albert E. Gregory
By Paul & Hawley.
Their attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH O. THERIEN AND ALBERT E. GREGORY, OF MINNEAPOLIS, MINNESOTA.

MOLD BOX OR FORM FOR CONDUIT-JOINTS.

SPECIFICATION forming part of Letters Patent No. 668,862, dated February 26, 1901.

Application filed October 11, 1900. Serial No. 32,689. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH O. THERIEN and ALBERT E. GREGORY, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful Improvements in Mold Boxes or Forms for Conduit-Joints, of which the following is a specification.

Our invention relates to devices to be used in connection with electric-wire conduits, particularly those having a plurality of ducts to facilitate the formation of the joints between the sections. It has been customary heretofore to wrap each joint with several thicknesses of burlap or cheese-cloth smeared with pitch or tar and then cover the same with cement to complete the joint. This method has, however, been found objectionable, as it requires the services of a skilled workman to properly cover a joint with cement, particularly on the side of the sections, and it has been necessary for the workmen to wait until the cement hardened on the sides of the joint before tamping the grout and gravel around the conduit-sections. Sometimes the workman would begin filling in the gravel and tamping the same before the cement was dry, and the conduit-sections would then frequently be moved out of alinement with each other, rendering it difficult, if not impossible, to feed the wires through the ducts.

One object therefore of our invention is to provide means to be placed upon each side of the conduit-sections, overlapping the abutting ends of the same, to facilitate the formation of the cement covering therefor.

A further object is to provide means overlapping the abutting ends on the sides of the sections which will not only aid in forming the joint, but will also brace the conduit-sections and prevent them being moved laterally out of alinement with each other.

A further object is to provide means to aid in forming a conduit-section joint which when the joint is completed can be separated therefrom and used at another point in the conduit-trench.

The invention consists generally in various constructions and combinations, all as hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective of a portion of an electric-wire-conduit trench, showing portions of two conduit-sections and our improved means for forming the joints between them. Fig. 2 is a similar view showing simply the conduit-sections and the mold boxes or forms overlapping the abutting ends thereof. Fig. 3 is a perspective of the preferred form of mold box or form. Fig. 4 is a similar view showing the box without the handle.

In the drawings, 2 represents a conduit-trench, and 4 a multiple-duct conduit-section arranged therein, whose end abuts a similar section, so that their ducts are in alinement.

The sections are placed on the bottom of the trench, resting in a suitable bed of cement, which forms the joint at the bottom of the sections. To enable the workman to quickly and conveniently form the sides of the joint and dispense with the usual wrapping of burlap or similar material, we prefer to provide mold boxes or pans consisting, preferably, of sheet-metal plates 5, having flanges 6, bent substantially at right angles to the plates 5 and adapted to bear on the sides of the conduit-sections. These boxes are used in pairs or sets, one upon each side of the conduit-section, and may be of any suitable length to overlap the abutting ends of the sections, and preferably when in use rest upon the bottom of the trench with their upper edges substantially flush with the tops of the sections. The boxes are preferably provided with handles 7, or, as shown in Fig. 4, lugs or ears 8 may be provided on the tops thereof, having holes 9 to receive a hook by means of which the workman may draw them out of the gravel when the cement filling has become hardened.

In use the operator, having placed the ends of the sections together, arranges the mold-boxes one upon each side overlapping the abutting ends of the sections, said ends having already been laid in cement on the floor of the trench. The workman then fills in the space between the boxes and the walls of the conduit-sections with cement and covers the tops of the sections between the boxes, also completing the joint and rendering the conduit moisture-proof. This work may be done

by any laborer, and the services of a mason and other skilled workmen, usually necessary in the formation of a joint, are unnecessary. As soon as the boxes have been filled with cement and the top of the sections covered the workmen may begin to tamp in the gravel and grout around the sections and against the sides of the joint, which will be thoroughly protected by the boxes.

Any lateral movement of the conduit-sections will be prevented by the bracing action of the boxes or pans, and the workmen need not exercise care in tamping the gravel around the joints. By the time the trench around the sections has been filled and tamped the cement will have dried sufficiently to permit the workmen to remove the boxes or pans for use at another joint. In this way by providing sets or pairs of these boxes or pans a large number of thoroughly moisture-proof joints may be rapidly and carefully formed.

It will be understood that while we have shown our invention in use in a trench where only a single line of conduit-sections is laid the device is applicable for use in trenches where there are several lines placed side by side or upon one another.

The boxes instead of being made of sheet metal may be cast and may be made in different sizes, according to the depth of the conduit-section and the desired width of the cement joint. The width of the flanges thereon may also be varied according to the desired thickness of the cement on the sides of the joint, and in various ways the details of construction may be modified without departing from our invention.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. As a new article of manufacture, a mold box or pan for electric-wire-conduit joints, comprising a plate adapted to rest upon the bottom of the trench and corresponding substantially in height to the depth of the conduit-sections and overlapping when in use the abutting ends of said sections, and wings or flanges provided on said plate and adapted to bear against the side walls of the sections, whereby when in use a space or pocket will be formed between said plate and the abutting ends of the sections to receive a quantity of cement to form the sides of the joint, substantially as described.

2. A mold box or pan for electric-wire-conduit joints, comprising a plate adapted to rest upon the bottom of the trench and overlap the abutting ends of the sections, wings or flanges provided on said plate and adapted to bear on the walls of the sections, whereby said plate will be spaced therefrom and a pocket or receptacle provided for the cement and forming the sides of the joint, and a suitable handle provided on said plate, for the purpose specified.

3. A mold-box for electric-wire-conduit joints, comprising a sheet-metal plate 5 of sufficient length to overlap the abutting ends of two conduit-sections and corresponding substantially in width to the depth of said sections, said plate being provided with inwardly-turned ends forming flanges 6 to engage the side walls of said sections when the device is in use, whereby a pocket or receptacle is formed between said plate and said abutting ends wherein cement may be placed and a suitable handle 7 provided on said plate to facilitate its removal from the gravel after the trench on each side of the conduit is filled, substantially as described.

In witness whereof we have hereunto set our hands this 8th day of October, 1900.

JOSEPH O. THERIEN.
ALBERT E. GREGORY.

In presence of—
RICHARD PAUL,
M. C. NOONAN.