

No. 771,508.

PATENTED OCT. 4, 1904.

E. E. SWINK.
MOLDING APPLIANCE.
APPLICATION FILED MAY 21, 1904.

NO MODEL.

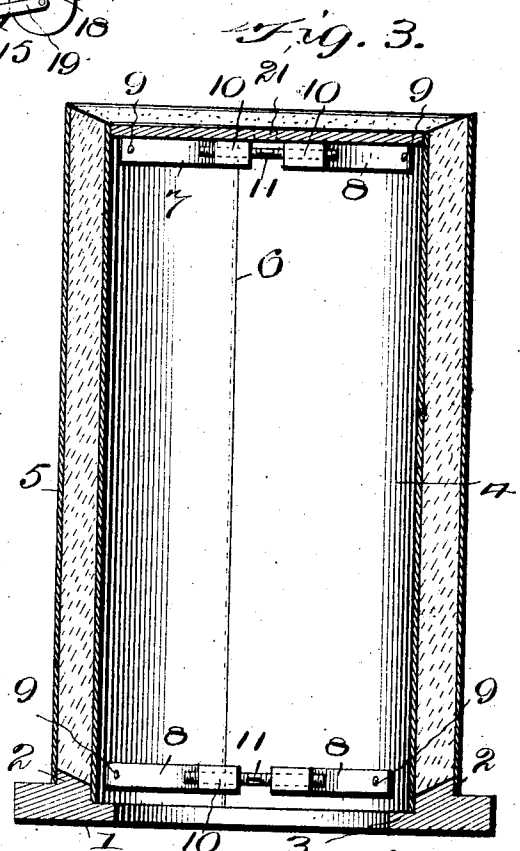
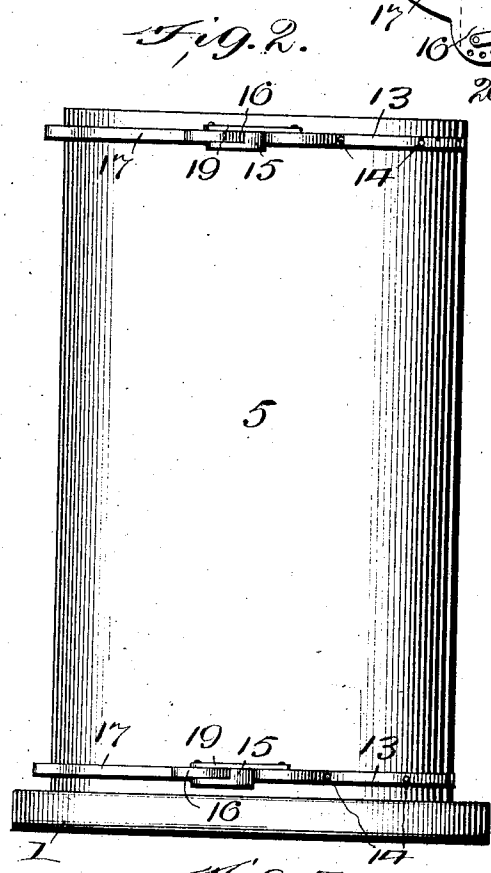
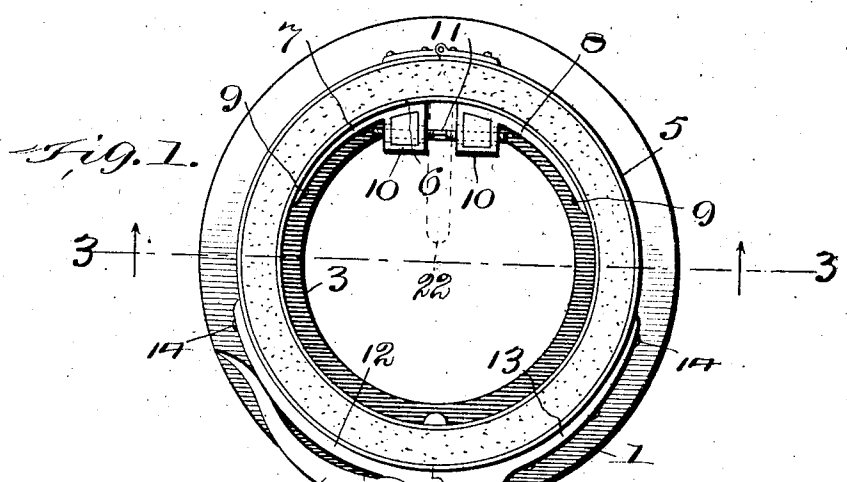
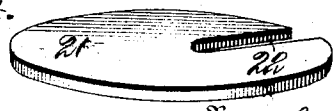


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

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MOLDING APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 771,508, dated October 4, 1904.

Application filed May 21, 1904. Serial No. 209,051. (No model.)

To all whom it may concern:

Be it known that I, EDWARD E. SWINK, a citizen of the United States, residing at Rockyford, in the county of Otero and State of Colorado, have invented certain new and useful Improvements in Molding Appliances; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to molding appliances; and it consists of certain novel features of combination and construction of parts, the preferred form whereof will be hereinafter clearly set forth, and pointed out in the claims.

The prime object of my invention, among others, is to provide a mold and means to hold the parts thereof together, whereby all the tiles produced will be of uniform size and will therefore more reliably fit together and cooperate with each other when applied to use, which is not possible with the tile as produced by the process ordinarily employed.

A further object of my invention is to so fit each tile produced that it will be true and straight and will therefore be very desirable and useful as a drain-tile for all purposes.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are to be considered a part of this application, and in which—

Figure 1 shows a top plan view of my invention applied to the work of producing a tile from plastic material, as cement. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is a longitudinal section taken on line 3 3 of Fig. 1. Fig. 4 is a perspective view of the top plate employed by me.

For convenience of reference to the various details and cooperating accessories of my invention numerals will be employed, the same numeral applying to a similar part throughout the several views.

Referring to the numerals on the drawings, 1 designates the base member, which is provided upon its upper edge with an annular collar or rib extension 2, the upper edge of said rib being slightly inclined or inwardly

beveled, as clearly shown in Fig. 3. The base member 1 is also provided with the inwardly-extending section or flange 3 on the inner side of the rib or extension 2, said flange and rib forming an angle or shoulder in which the lower edge of the internal expansible member 4 is designed to rest, and as clearly shown in Fig. 3.

The outer expansible tubular member 5 is designed to have its lower end disposed against the outer edge of the collar-like extension 2, this disposition of said part being also clearly illustrated in Fig. 3. The base member 1 therefore serves as a support for the vertically-disposed cooperating tubular members 4 and 5, and the plastic material or other substance from which the tile is to be formed is intended to be placed in the annular chamber formed by the concentric disposition of said tubular members. It therefore becomes desirable that the tubular members 4 and 5 shall be accurately located and truly held in an adjusted position, and with this purpose in view it will be understood that the best results may be obtained by forming the tubular expansible members 4 and 5 from suitable sheet metal of any preferred character.

By reference to Fig. 3 it will be observed that the edges of the tubular member 4 are disposed so as to overlap each other, such overlapping disposition being designated by the numeral 6, and in order that the overlapping edges may be properly secured I provide for each end of the tubular member the clamping-jaws 7 and 8, arranged in pairs and properly secured in position, as by suitable rivets 9 or other equivalent means. The clamping-jaws are each provided with the inwardly-directed extension or bracket 10, each bracket having threaded apertures to receive the clamping-bolt 11, the ends of which are oppositely threaded, and it is therefore obvious that by placing a wrench upon the squared or middle portion thereof the overlapping edges may be adjusted as desired. In like manner I provide suitable clamping devices for the exterior tubular member or casing 5, said clamping devices comprising the members or brackets 12 and 13, secured in place

in any suitable manner, as by the rivets 14 or equivalent means. The bracket 12 is provided with the curved terminal or lip 15, which provides a seat for the cam-head 16 of the controlling-lever 17, and in order that the meeting faces of the brackets 12 and 13 may not casually slip past each other I provide upon one of said brackets the extensions or ears 18, designed to rest upon either side of the other bracket, thereby insuring that said brackets will be held in reliable union with each other.

The head 16 is connected with the bracket 13 by means of the link member 19, and it is obvious that by moving the controlling-lever 17 against the bracket 12 both the brackets will be tightly drawn toward each other and secured until said controlling-lever is again moved outward. In order to prevent the head 16 from casually moving out of an adjusted place, I provide the plurality of apertures 20, in which a pin of suitable size may be entered, whereby said head will be reliably locked against rotation until said pin is removed. It is obvious, therefore, that the thickness of the tile to be molded within the annular space between the walls 4 and 5 may be readily gaged or regulated, as desired. Moreover, the tile may be readily removed from its casing after it is set or properly hardened by rotating the controlling bolt or screw 11, so as to diminish the diameter of the inner tube 4, while the size of the exterior casing 5 may be increased by an outward movement of the controlling-lever 17. I prefer that the meeting edges of the two casings 4 and 5 shall slightly overlap each other, so that said casings may be adjusted to give proper diameter to the tube or tile to be produced without leaving a space or opening between said edges.

To facilitate the introduction of the plastic material in the annular chamber between the walls 4 and 5, I provide the cover or closure member 21, adapted to rest upon the upper end of the member 4 and having a slotted opening 22 upon one side, said slotted opening being designed to be placed over the squared portion of the bolt 11, so that said squared portion will be easily accessible to the wrench.

It will thus be seen that I have provided reliably efficient means for molding sewer and drain tiles and, in fact, all variety of tile and that the parts thereof may be very cheaply and expeditiously manufactured and quickly assembled each in its respective place, and while I have described the preferred combination and construction of parts deemed necessary in materializing my invention I desire to comprehend in this application all substantial equivalents and substitutes that may be considered as fairly falling within the scope thereof.

What I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described mold for tubing, comprising a base having a flange upon its upper side, a pair of expansible tubular members, between the lower ends of which said flange rests, brackets secured to the inner tubular member adjacent to the meeting edges thereof, and a clamping-bolt adapted to cooperate with said brackets and adjust the meeting edges of said inner tube, brackets 12 and 13 secured to the outer tubular member, the bracket 12 having a curved terminal 15, a controlling-lever 17 having a cam-head 16 adapted to cooperate with said curved terminal, link members 19 adapted to operatively secure said controlling-lever to the bracket 13 whereby, when the cam-head 16 is engaged with the terminal 15 and the controlling-lever 17 operated, the meeting edges of the outer tubular member will be drawn together, and means to lock said lever in its adjusted position, substantially as set forth.

2. In a mold of the character specified, the combination with a base having a flange upon its upper side, of an inner and outer expansible tubular member, brackets secured to the inner member and a two-way threaded bolt adapted to cooperate with said brackets and adjust the meeting edges of said inner tube, brackets secured to the outer tubular member adjacent to its meeting edges, one of said brackets having a curved terminal, a controlling-lever having a cam-head, means to movably secure said controlling-lever to one of said brackets and so dispose the same that the cam-head will cooperate with the curved terminal to draw the meeting edges of said outer tubular member together, substantially as set forth.

3. In a mold of the character specified, the combination with a tubular casing having brackets secured near the meeting edges thereof, of a controlling-lever having a cam-head, links to secure said controlling-lever to one of said brackets and dispose the cam-head in cooperation with the opposite bracket whereby, when said lever is operated, the meeting edges of said member will be brought together, ears carried by one bracket and adapted to receive the edge of the opposite bracket, and means to lock said controlling-lever in its closed position, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD E. SWINK.

Witnesses:

E. C. LEAK,
CHARLES H. DARING.