

J. H. SULLIVAN.
MOLD TIE.
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972,036.

Patented Oct. 4, 1910.

Fig. 1.

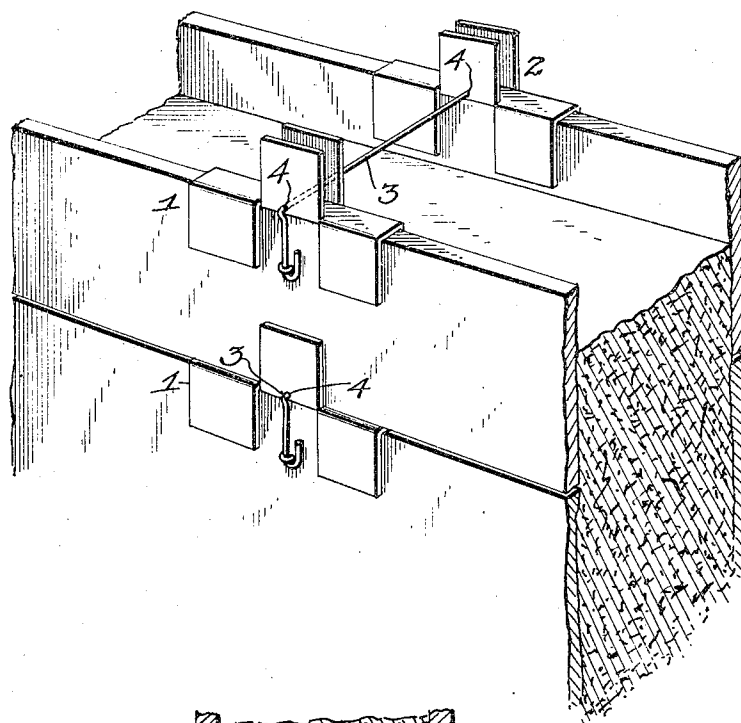
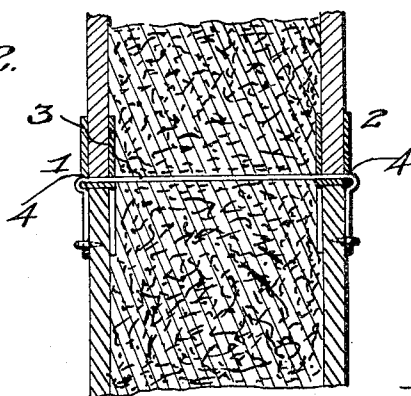


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN H. SULLIVAN, OF GRAND RAPIDS, MICHIGAN.

MOLD-TIE.

972,036

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN H. SULLIVAN, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Mold-Ties; and I do 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.

This invention relates to tie wires for molds and is especially adapted for use in molds for concrete walls.

In the erection of concrete building walls, it is customary to employ molds composed of planks or boards arranged in vertical edgewise relation and having their meeting edges temporarily connected by means of fastening members or clips, the clips on opposite sides of the mold being connected by rods or bolts. These bolts while thoroughly efficient for uniting the boards at points between their ends have been found in practice to be objectionable to the extent that when said bolts are used, it is necessary to form notches in the lower edge of the plank which were set immediately on the upper part of the plank holder and over the bolt thereby rendering the planks unfit for other uses.

This invention has for its object to provide a simple, inexpensive form of tie rod which may be conveniently employed for connecting the boards on the opposite sides of the mold and which is cheaper and quicker to handle and by the use of which, the necessity of mutilating the planks forming the mold is avoided.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a mold showing this improved tie applied; and Fig. 2 is a transverse section through the mold showing the tie in side elevation.

In the embodiment illustrated, plank holders 1 and 2 are shown mounted on the upper edges of the side walls of a mold. These holders are connected by means of a piece of wire 3, preferably of number 12 gage which is cut about one foot more or

less longer than the extreme width of the mold. This wire 3 is extended through the holes, as 4, in the plank holders and one end thereof projects over the outer face of the plank holder about four or five inches and is turned down flush with the outside face of the plank or mold side directly under the aperture in the plank holder and is preferably struck a light blow to form a bend 3' to confine it more closely to the face of the plank. About three inches, more or less, below the upper edge of the plank, a small three-fourths of an inch staple is arranged astride the wire and forced into the plank. The terminal of this end of the wire is then bent back over the staple, thereby securely fastening it against accidental withdrawal. The other end of the wire 3 is then drawn taut and is secured to the opposite side of the mold in a manner similar to that above described. The formation of a sharp angle directly below the hole in the plank holder causes the lateral pressure of the concrete between the planks to be exerted between these two points and there is no strain or tension on the staple.

When it is desired to remove the mold from the wall being constructed the wire 3 may be cut off flush with the outer faces of the wall and either left to form a reinforcing member for the concrete or it may be withdrawn while the wall is green if desired. This device for securing together the mold sections is very cheap to manufacture and may be very quickly applied.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

I claim as my invention.

1. The combination with plank holders having apertures therein, a wire extended through the apertures in said holders with the ends thereof projecting beyond the holders and bent downwardly around said holders at a sharp angle directly below the apertures in the holders and detachable means for securing said ends to the mold.

2. The combination with a mold having

spaced side walls, plank holders arranged on the upper edge of said walls and provided with apertures extending transversely there-through, a wire extending through the apertures in said holders and projecting at opposite ends beyond said holders, said ends being bent outwardly around the holder into close contact with the side walls of the mold, staples for securing said ends to the side walls of the mold, the terminals of said ends being bent upwardly around said staples.

3. The process of forming a mold for a concrete construction consisting of arranging two portions or planks edgewise and spacing them laterally from each other,

placing plank holders on the upper edges of the said planks and then extending a wire transversely across the mold through apertures in said holder, then bending the ends of said wire downwardly at a sharp angle below said holders into engagement with the outer faces of the mold, securing said ends to the mold and then bending the terminals of said ends upwardly.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN H. SULLIVAN.

Witnesses:

FRED S. TEMPLE,
CORA TIETEMA.