April 5, 1927. 1,623,338

W. M. GOLDSMITH

TIE AND SPACING MEANS FOR PLASTIC CONSTRUCTION

Filed July 3, 1922

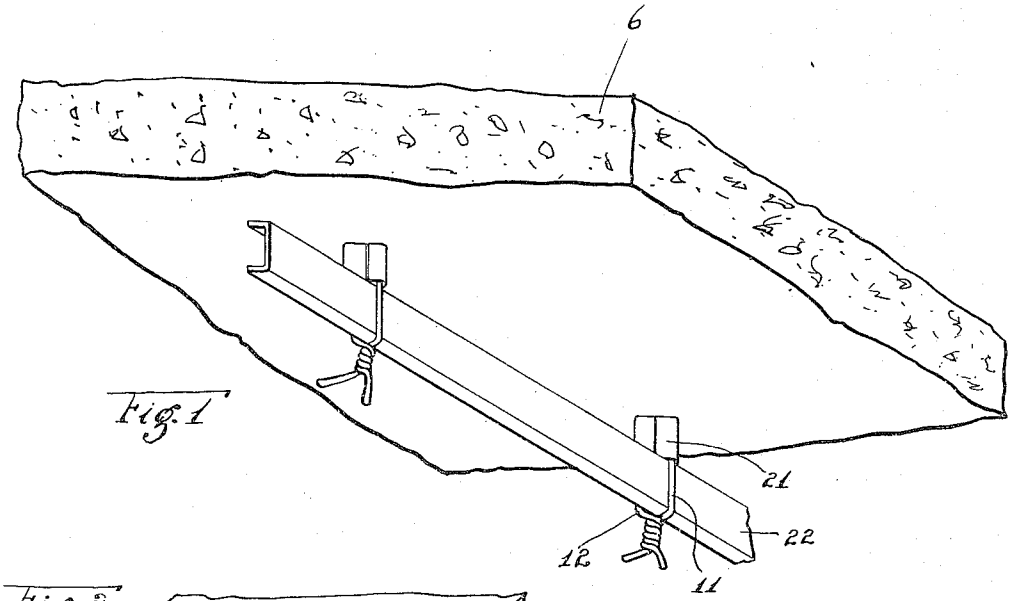


Fig. 1

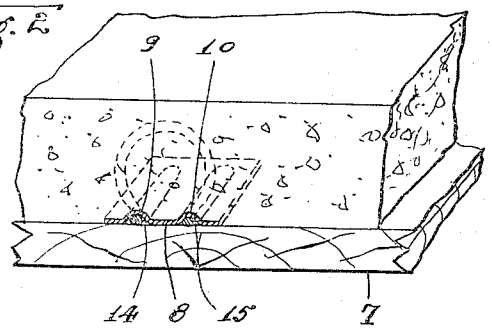


Fig. 2

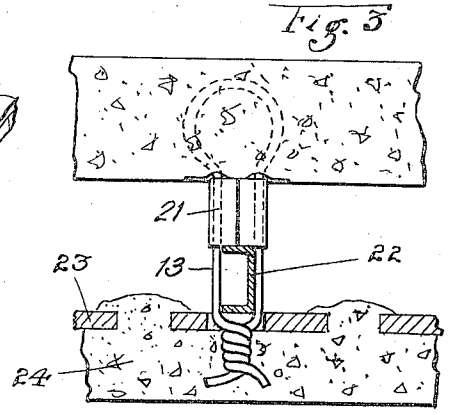


Fig. 3

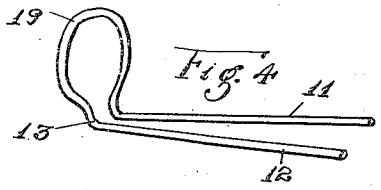


Fig. 4

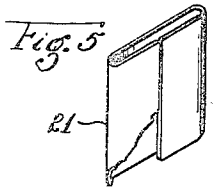


Fig. 5

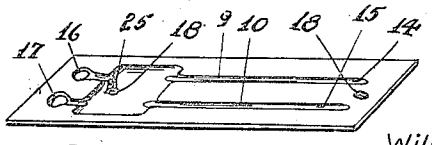


Fig. 6

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Patented Apr. 5, 1927. 1,623,338

UNITED STATES PATENT OFFICE.

WILLIAM M. GOLDSMITH, OF CINCINNATI, OHIO, ASSIGNOR TO THE GOLDSMITH METAL LATH COMPANY, OF CINCINNATI, OHIO.

TIE AND SPACING MEANS FOR PLASTIC CONSTRUCTION.

Application filed July 3, 1922. Serial No. 572,472.

An object of my invention is to provide a simple and efficient tie and spacing means to be employed for the suspension of ceilings from plastic structures such as concrete floors, etc.

Another object of my invention is to provide a device for the purpose stated which may be readily adapted to space the ceilings at various determinable distances from the plastic structures supporting the ceilings.

These and other objects are attained by means described herein and disclosed in the accompanying drawing, in which:

Fig. 1 is a perspective view of a ceiling tie embodying my invention mounted in an operable position.

Fig. 2 is a sectional view thru a mold section showing a plastic having embedded in it a device embodying my invention.

Fig. 3 is a fragmental section of a device embodying my invention spacing two plastic masses.

Fig. 4 is a perspective view of a supporting element forming a detail of my invention.

Fig. 5 is a perspective view of a spacing element forming a detail of my invention.

Fig. 6 is a perspective view of a cap forming a detail of my invention.

The fragmental slab 6 is part of a floor structure which may be made out of reinforced concrete as is commonly done in the structural arts. At the time when the mold 7 is formed for the reception of the plastic concrete 6, a cap 8 is mounted upon the upper face of the mold 7 in such position that it will be disposed upon the lower face of the concrete 6 after the concrete has set. The cap 8 has developed on it longitudinally extending ridges 9 and 10 formed by creating the grooves 14 and 15 in the cap and in which grooves the arms 11 and 12 of the hanger 13 may be disposed. The perforations 16 and 17 formed in the ridges are disposed adjacent one end of the cap, and the arms 11 and 12 of the hanger may be inserted thru the perforations 16 and 17 in order to assemble the cap and hanger preparatory to mounting same on the mold 7. The cap may be secured upon the mold by suitable means such as nails 25 which may be passed thru slots 18 in the cap. The eye 19 formed on the hanger intermediate the arms 11 and 12 is, in the assembled form of the cap and hanger, disposed upon the side of the cap upwardly from which project the ridges 9 and 10. After the plastic has set, and the mold 7 has been removed, the arms 11 and 12 may be bent downwardly or away from the plastic 6 and the cap 8 be removed if desired. A spacing clip 21 is then mounted upon the arms 11 and 12. The spacing clip comprises preferably a flat metallic band having its ends turned inwardly upon itself to form an elongated tubular like structure having its longer internal diameter substantially equal to the outside distance of the arms 11 and 12, and having its smaller internal diameter substantially equal to the diameter or thickness of the arms 11 and 12. After the spacer has been mounted upon the arms 11 and 12, furring member 22 is brought into engagement with the lower edge of the spacing clip 21, between the arms 11 and 12. The free ends of the arms 11 and 12 are then twisted about one another or in any other suitable manner secured so as to retain the furring member 22 in position as shown in Fig. 1 and 3. The lath 23 is then mounted upon the members 22 and plastic 24 may then be mounted upon the lath. The lath 23 may be mounted upon the furring members 22 in any suitable manner such as by means of pieces of wire as is common practice, or any other suitable means may be employed in lieu thereof.

If desired the spacer clip and cap may be assembled prior to mounting the device on the mold 7. Under such circumstances the cap is provided with a wide groove or recess to accommodate the spacer, instead of the long narrow grooves in which the arms 11 and 12 are disposed, as shown in Fig. 6.

What I claim is:

1. As a new article of manufacture for use with plastic construction, a cap having grooves and spaced perforations in its top, a hanger comprising a metallic rod having an eye formed intermediate its ends extending thru the perforations in the top whereby the ends of the hanger may lodge within the grooves, the eye assuming a position such that it will be embedded in a plastic material placed over the cap, and a spacer clip adapted to be mounted on the free ends of the hanger.

2. As a new article of manufacture for use with plastic construction, a cap adapted to be mounted upon the mold and adapted

to be subjected on one side to a plastic material, an insert passing thru the cap, and a spacer clip adapted to be mounted upon the insert portion extending from the plastic.

3. As a new article of manufacture for use with plastic construction, a cap adapted to be mounted upon the mold and adapted to be subjected on one side to a plastic material, an insert passing thru the cap, a spacer clip adapted to be mounted upon the insert portion extending from the plastic, and a support member adapted to be secured in engagement upon the spacing clip by the insert.

4. In plastic construction the combination of a plastic mass, a hanger having an eye portion embedded in the mass and suspended therefrom, a support bar suspended at the free end of the hanger and spaced from said mass, spacer means for rigidly retaining the support bar in its spaced relation to the mass, and a ceiling structure suspended from the support bar.

5. As a new article of manufacture for use with plastic construction, a cap adapted to be mounted upon a mold and adapted to be subjected on one side to a plastic material, an insert passing through the cap and extending from the plastic for suspending a support bar in spaced relation to the plastic and a spacer clip cooperating with the insert for rigidly securing the support bar against movement toward and away from plastic.

6. In plastic construction the combination of a plastic mass capable of petrification, a hanger having a portion embedded in the mass and having a free portion extending from the mass, a support bar attached to the free portion of the hanger, spacer means between the support bar and mass, the hanger retaining the support bar against the spacer for retaining the spacer against the mass, whereby the support bar is retained in spaced relation to the mass, and a ceiling structure carried by the support bar.

In testimony whereof, I have hereunto subscribed my name this 30th day of June, 1922.

WILLIAM M. GOLDSMITH.