July 8, 1924. 1,500,121

D. J. G. FONTAINE

METAL FALSEWORK FOR CONCRETE CONSTRUCTION

Filed Dec. 22, 1922

Fig. 1.

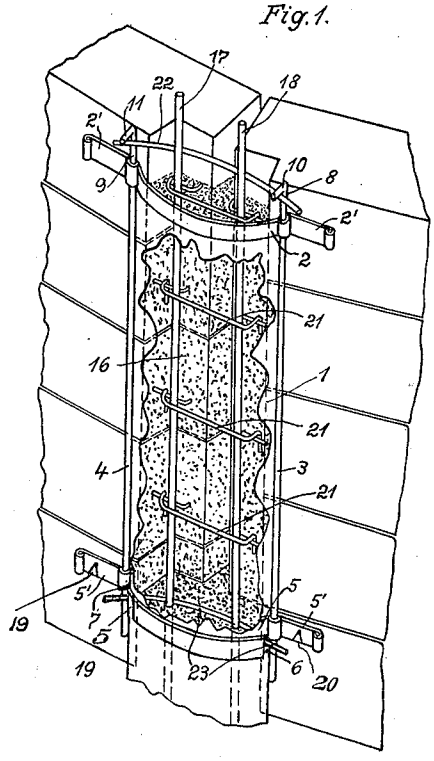


Fig. 2.

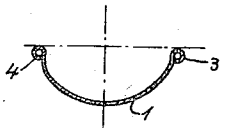
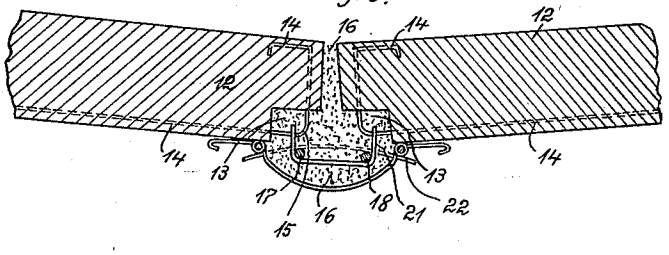


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

DANIEL JEAN GUSTAVE FONTAINE, OF PARIS, FRANCE.

METAL FALSEWORK FOR CONCRETE CONSTRUCTION.

Application filed December 22, 1922. Serial No. 608,555.

To all whom it may concern:

Be it known that I, DANIEL JEAN GUSTAVE FONTAINE, a citizen of the French Republic, residing at Paris, France, have invented certain new and useful Improvements in Metal Falsework for Concrete Construction (for which I have filed applications for patent in France on the 23rd December, 1921, Patent No. 546,184, and 24th October, 1922), of which the following is a specification.

This invention relates to a metal shield to be used as false-work designed to reinforce or to stiffen walling of any type by means of steel or iron mountings embedded in concrete. This metal shield is constructed so that it can be placed easily and securely upon the facade of a building in course of erection in order to serve as falsework for the shaken concrete designed to fill in the gaps beteween the blocks of reinforced concrete which have been prepared in the works and to securely unite said blocks. This shield can be used for buildings which are curvilinear or straight lined as well as for buildings tapering in upward direction, such as factory chimneys, towers, light houses and the like. The falsework-shield can be easily put in place for the execution of the work and be removed when the concrete has set to be used again.

In order that the invention may be clearly understood I shall hereinafter describe the same with reference to the form of construction shown by way of example on the accompanying drawing, wherein:

Fig. 1 shows in front elevation the falsework shield in use, part of the wall being broken away.

Fig. 2 is a cross section of the falsework shield.

Fig. 3 shows in plan view a preferred form of construction of the wall in connection with which the falsework shield is used.

The falsework shield is entirely made of metal; it consists of a plate 1 of strong sheet steel or sheet iron which is more or less curved. The plate 1 could also be plane. The upper and lower edges of the plate 1 are stiffened by means of band irons 2, 5. The vertical edges 3, 4 are bent to form lugs. In the lower edge of the plate 1 two notches 6, 7 are provided in close proximity to and at the bent edges 3, 4. In the lugs formed by the lateral edges 3, 4 rods 8, 9 are located which project at the upper ends from the upper edge of the plate 1 and are bent to form hooks 10, 11. The upper and lower band irons 2, 5 extend at right and left over the lateral edges of the plate 1 to form arms 2′ and 5′ serving as handles to facilitate the manipulations.

The falsework shield is placed upon the front surface of the wall in course of construction. This wall consists of blocks 12 of reinforced concrete which are of convenient shape and cut out at the front corners so that an angular incision 13 is formed at each front corner of each block. The reinforcing irons 14 embedded in the concrete block are bent so that they protrude from the angular incisions 13 and form loops 15. The blocks 12 of concrete are united by shaken concrete 16 reinforced for instance by vertical iron rods 17, 18.

The iron rods 17, 18 embedded in the foundation are securely held in position for instance by means of loops 21 which are hooked with the ends upon the loops 15 of the reinforcing irons 14 of the concrete blocks 12. The shield 1 is secured in its position by means of a strong wire 22 and its upper end placed behind the rods 17, 18 and in front of the strengthening rods 8, 9 of the plate 1 so that the ends of said wire are held by the hooks 10, 11 at the upper ends of said rods. The shield 1 is further secured in its position by means of a strong wire 23 at its lower end placed behind the rods 17, 18, the ends 19, 20 of said wire 23 being inserted in the notches 6, 7.

If at the point where the falsework shield has to be used hooks 19, 20 are fixed in the walling, the lower band iron may be placed on said hooks, the shield being thus well supported. In this case neither the notches 6, 7 in the lower band iron 5 nor the strong wire 23 are necessary.

I claim:—

1. A falsework shield of metal for constructions made partly or entirely of reinforced shaken concrete consisting of a plate of sheet iron of cross section curved according to the shape which the shaken concrete is designed to have and having two notches in its lower edge one near each lateral edge, band irons at the upper and lower edges of said plate projecting over the lateral edges of the same to serve as

handles, band irons stiffening the lateral edges of said plate curved to form lugs, iron rods on said lugs projecting over the upper edge of said plate, hooks at the upper ends of said rods and means for securely fixing said plate upon the walling, in course of construction.

2. A falsework shield of metal for constructions made partly or entirely of reinforced shaken concrete consisting of a plate of sheet iron of cross section curved according to the shape which the shaken concrete is designed to have and having two notches in its lower edge one near each lateral edge, band irons at the upper and lower edges of said plates projecting over the lateral edges of the same to serve as handles, band irons stiffening the lateral edges of said plate curved to form lugs, iron rods on said lugs projecting over the upper edge of said plate, hooks at the upper ends of said rods, a strong wire inserted behind the vertical iron rods provided to reinforce the shaken concrete to be produced and having its ends placed upon the front side of said lateral stiffening rods of the shield under the hooks at the upper ends of said rods to securely hold the shield at the upper end and a strong wire inserted behind the vertical iron rods provided to reinforce the shaken concrete to be produced and engaging with said notches in the lower edge of said plate to securely hold the same at the lower end, substantially as described and shown and for the purpose set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

DANIEL JEAN GUSTAVE FONTAINE.

Witnesses:
E. MOWLHY,
Y. DESCHAMP.