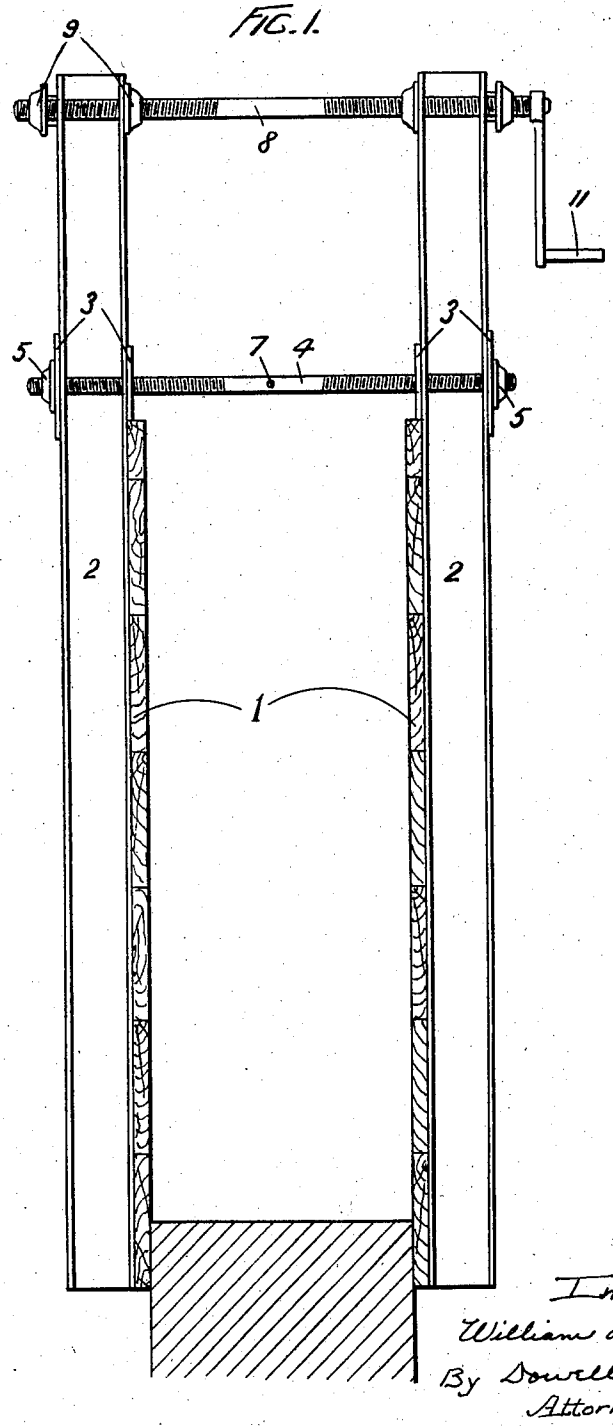
Dec. 20, 1938. W. DE VIGIER 2,140,669

WALL FORM CLAMP

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FIG. 1.



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FIG. 5.

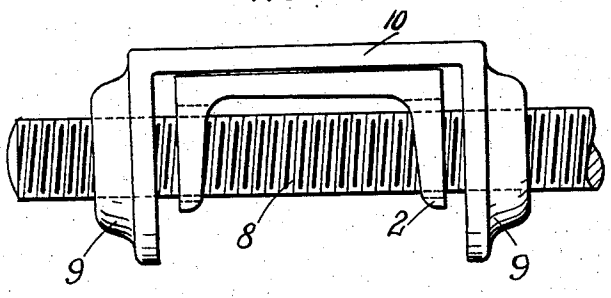


FIG. 6.

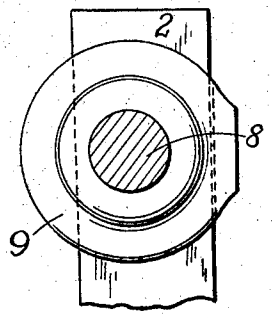


FIG. 2.

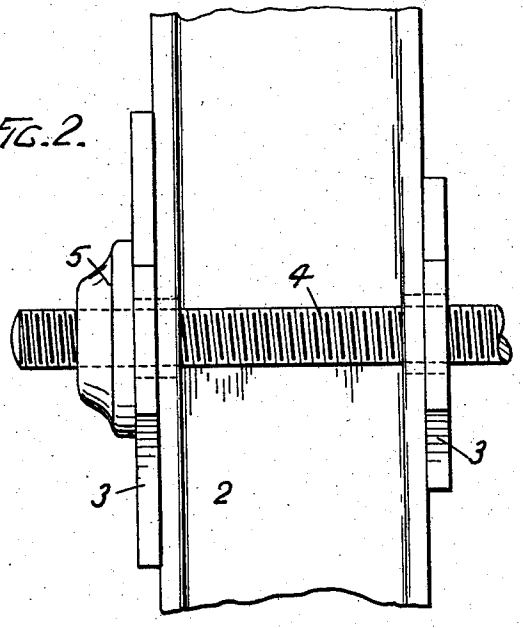


FIG. 4.

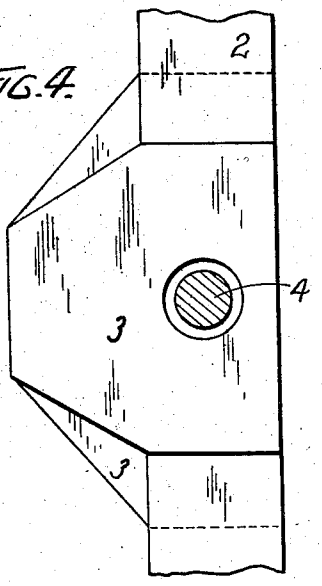
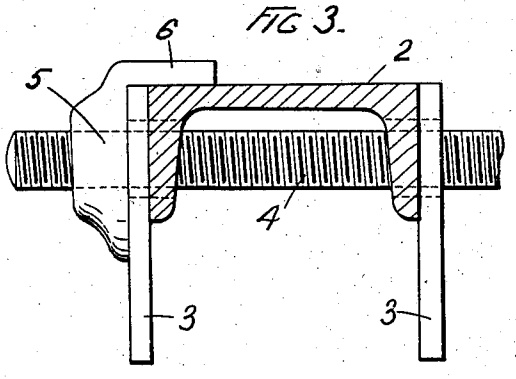


FIG 3.



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UNITED STATES PATENT OFFICE

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WALL FORM CLAMP

William de Vigier, London, England

Application November 5, 1937, Serial No. 173,049
In Great Britain November 9, 1936

1 Claim. (Cl. 25—131)

In the building of concrete walls and like structures it is usual to hold a pair of shutters in position by clamps comprising arms, such as girders, extending above the shutters, at which position screws form a combination adapted to force the lower ends of the arms inwardly and press the lower margins of the shutters against an existing wall for example.

The object of the present invention is to provide an improved form of clamp of the kind referred to and it is characterized by the combination with a spacing tie in the form of a member having right and left handed screw threads passing loosely through the clamping arms just above the shutters, of another screw with right and left hand threads passing loosely through the top of the arms and provided with nuts which by turning the screw are adapted, at one time, to engage and force the upper ends of the arms apart and so cause the lower ends to press upon the shutters, and, at another time, to reversely engage and draw the upper ends of the arms toward one another in order to release the shutters.

The spacing tie is a right and left handed screw fitted with nuts having wings adapted to so engage a side of the companion arm that rotation is prevented, any suitable means being employed for turning the screw.

The nuts upon the screw for separating and drawing together the upper ends of the arms are of yoke-like form adapted to straddle the arms with clearance sufficient to permit of angular movement of the arms relative to the screw when the ends are being drawn towards one another in the act of releasing the shutters. This operating screw may be turned by a removable crank handle or key.

One constructional embodiment of clamping means according to the invention is illustrated in the accompanying drawings whereof Fig. 1 is a view showing the same in position and fixed to shutters. Fig. 2 is a view to a larger scale of part of Fig. 1. Figs. 3 and 4 are respectively a plan and side elevation of Fig. 2. Figs. 5 and 6 are a plan and side elevation to a larger scale, of another part of Fig. 1.

As here shown, the shuttering 1 is assumed to be fixed in any convenient way to arms 2 of channel section. Just above the shuttering the arms are reinforced by cheeks 3 through which and the flanges of the channel a screw 4 with right and left hand threads passes loosely, each end being provided with a nut 5. These nuts are each formed with a wing 6 (Fig. 3) engaging the channel to prevent turning when the screw is operated as by a tommy bar, not shown, inserted in the hole 7 (Fig. 1). Instead of a removable tommy bar, a lever hinged to a boss on the screw might be employed, the lever when out of use lying parallel to the screw; or a removable crank handle or key may be employed. By means of the screws 4 and nuts 5 the arms 2 can be accurately spaced apart to agree with the thickness of the wall or structure being erected.

At the upper ends of the arms 2 the flanges are pierced to allow of the free passage therethrough of another screw 8 with right and left hand threads engaged at each end by nuts 9, the two nuts at each arm being joined by a yoke 10 which separates them by a distance somewhat greater than the outside width of the arm. By turning the screw 8, as through a crank handle 11, the nuts 9 located between the arms can be made to force the upper ends of the arms apart and so press the lower ends and shuttering against the wall which is to be extended. After the material filled between the shutters has set, the screw 8 can be turned in the reverse direction so as to draw the upper ends of the arms together sufficiently to separate the lower ends and shuttering which latter is thus released and ready to be raised above and clamped to the newly constructed walling. Although each arm 2 has been referred to as acted upon by two nuts, it will be obvious that one of the nuts may be replaced by a plain or non-threaded member.

What I claim is:—

A building shutter clamp, comprising a pair of shutter-engaging arms, and two screws, each having right and left handed threads, passing loosely through the arms at different positions, nuts upon one screw, non-rotatable and enabling such screw to act as an arm-spacing tie, and nuts of yoke-like form upon the other screw, each straddling one arm with clearance sufficient to permit angular movement of the arm relative to the screw, said straddling nut, at one time, engaging and forcing the arms apart and, at another time, reversely engaging and drawing the arms toward one another.

WILLIAM DE VIGIER.