J. S. MURPHY.

ROOF LATCH.

APPLICATION FILED AUG. 2, 1916. RENEWED MAY 2, 1918.

1,270,043. Patented June 18, 1918.

Fig. 1,

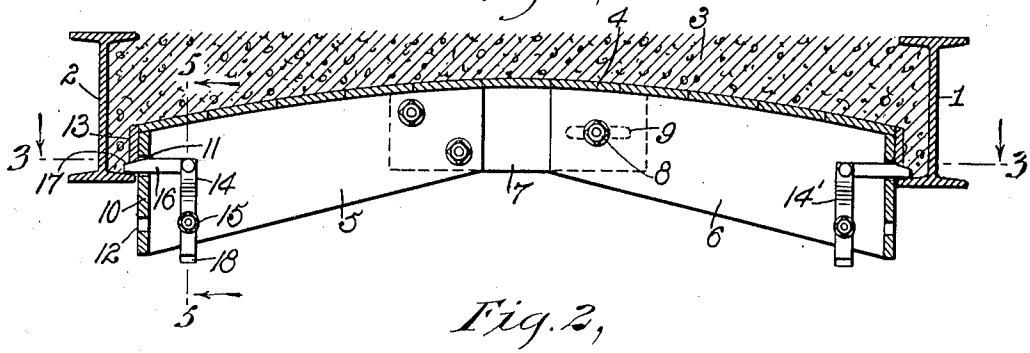


Fig. 2,

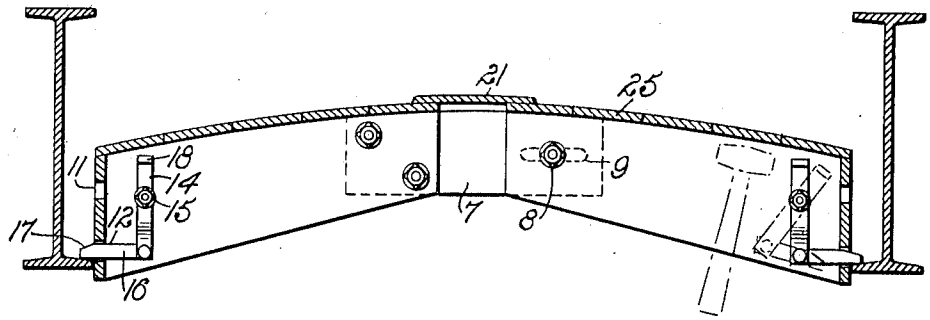


Fig. 3,

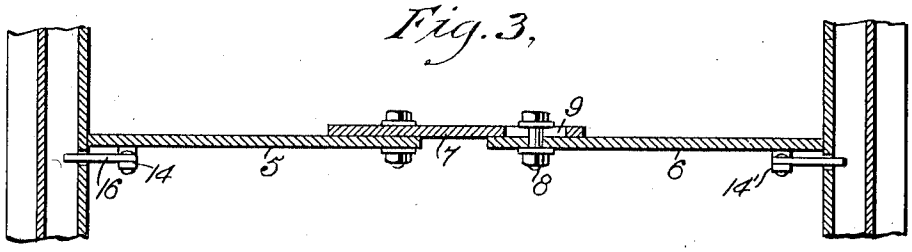


Fig. 6.

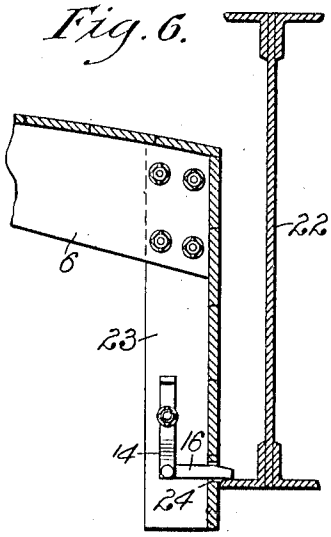


Fig. 5,

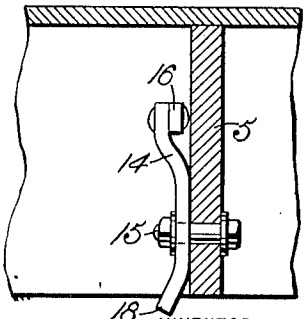
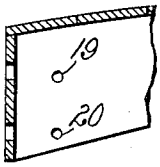


Fig. 4,



WITNESSES

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ROOF-LATCH.

1,270,043. Specification of Letters Patent. Patented June 18, 1918.

Application filed August 2, 1916, Serial No. 112,666. Renewed May 2, 1918. Serial No. 232,159.

To all whom it may concern:

Be it known that I, JOHN S. MURPHY, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Roof-Latch, of which the following is a full, clear, and exact description.

This invention relates to forms used in certain building operations and particularly to what is known as a roof latch, and has for an object the provision of an improved structure which may be quickly applied and removed and which will not easily get out of order or become broken.

Another object in view is to provide a roof latch formed with adjustable members and a catch member which may be used in either of two positions for holding the adjustable members in an elevated or depressed position for accommodating large or small I-beams.

A still further object of the invention is to provide a roof latch in which an adjustable arch member may be used having depending legs on which catches are mounted.

In the accompanying drawing:—

Figure 1 is a sectional view through a pair of I-beams and a cement arch, an embodiment of the invention being shown in connection therewith.

Fig. 2 is a view of an arch and associated parts shown in connection with large I-beams with the catches moved to a different position from that shown in Fig. 1.

Fig. 3 is a section through Fig. 1 approximately on line 3—3.

Fig. 4 is a fragmentary side view of one end of the arch member embodying certain features of the invention.

Fig. 5 is an enlarged fragmentary sectional view through Fig. 1 approximately on line 5—5.

Fig. 6 is a fragmentary view of one end of a slightly modified form of a roof latch, the parts being shown in section for better illustrating the structure.

Referring to the accompanying drawing by numerals, 1 and 2 indicate I-beams used in floorings or any other structures and designed to carry an arch 3 of concrete which is usually cast in place. In order to provide a support for the concrete during the casting operation and while the concrete is still green, one or a large number of supports must be provided. The roof latch embodying the invention is intended to answer the purpose of supplying arches for the boards or floor 4 which are supported by the arch part of the invention consisting of sections 5 and 6 connected together by an adjustable member 7. The adjustable member 7 is bolted or otherwise rigidly secured to one of the sections, as for instance, section 5, and is provided with a bolt 8 extending through section 6 and through a slot 9 in the connecting member 7. This will allow a free extension within certain limits of the arch and will permit either of the sections to be swung downwardly when removing the device for allowing an independent adjustment of either section. Section 5 is provided with a board or end member 10 having apertures 11 and 12. This board may be of any length and if sufficiently long may be used as part of the form for holding the concrete arch 3 in position. If the board 10 should be comparatively short an auxiliary or extra board 13 is provided.

A latch structure 14 is pivotally mounted at 15 on section 5, said latch structure being formed with a catch bar 16 beveled at 17, said bevel permitting a free and easy removal of bar 16. The end 18 of the catch is bent up somewhat as shown, for instance, in Fig. 5, in order to provide a handle for a proper operation of the latch either by the hand or by a hammer, as shown in dotted lines in Fig. 2. The latch 14′ in section 6 is constructed identically as the catch 14 and therefore will need no additional description. The catches are arranged as shown in Fig. 1 where the I-beams 1 and 2 are comparatively small, thus utilizing the aperture 11. When the I-beams are comparatively large, as shown in Fig. 2, the latches are reversed so that the bolt 15 is arranged in aperture 19 instead of aperture 20. Outside of the reversal of the latch and use of the aperture 12 there is no change necessary when using the device on low or high beams. In case the sections 5 and 6 should be moved a comparatively long distance apart an arch connector 21 may be used, though ordinarily this is not necessary.

In Fig. 6 will be seen a slightly modified form of the invention in which an extra large I-beam 22 is shown. In I-beams of this character it is preferable to make the arch comparatively thin, as, for instance, of the thickness shown in Fig. 1, instead of the full depth of the arch as the latter

would be an unnecessarily added weight. In order to obviate making a thick arch each of the sections 5 and 6 is provided with a depending leg 23 having an aperture 24 adjacent the lower end for accommodating the bolt 16 of the catch 14.

The roof latch comprising the arch sections 5 and 6 and the catches 14 and 14′ is formed so as to properly support the concrete while allowing a quick and easy removal of the parts comprising the form without injuring any of the parts. For instance, when it is desired to remove the roof catch members 14 and 14′ are operated for withdrawing bar 16, said withdrawal being made easy by reason of the beveled upper end 17. After this has been done the bolt 8 may be loosened and the sections independently moved to a slight extent whereby the parts are loosened sufficiently to easily withdraw the entire structure. The sections 5 and 6 may be made with a top covering of boards if desired, so that it will only be necessary to arrange a number of these together in order to provide a proper form for receiving the concrete 3, but preferably the various boards 25 are separate boards merely laid in position on top of the sections 5 and 6.

What I claim is:

1. A roof latch comprising an arch member having ends formed with upper and lower apertures, a latch member having a bar, and means for pivotally mounting said latch member on said arch in either of two positions whereby said bar may be caused to operate in either of the apertures in said ends.

2. A roof latch comprising an arch member having apertured ends, a reciprocating bar arranged to extend through one of the apertures in each end, said bar having a beveled surface adjacent the outer end, and a pivotally mounted support for each of said bars whereby the bars may be moved in or out according to the position of said support.

JOHN S. MURPHY.