No. 815,452. PATENTED MAR. 20, 1906.

M. MAYNARD.

DEVICE FOR LIFTING HEAVY METALLIC PLATES.

APPLICATION FILED SEPT. 21, 1905.

Fig. 1.

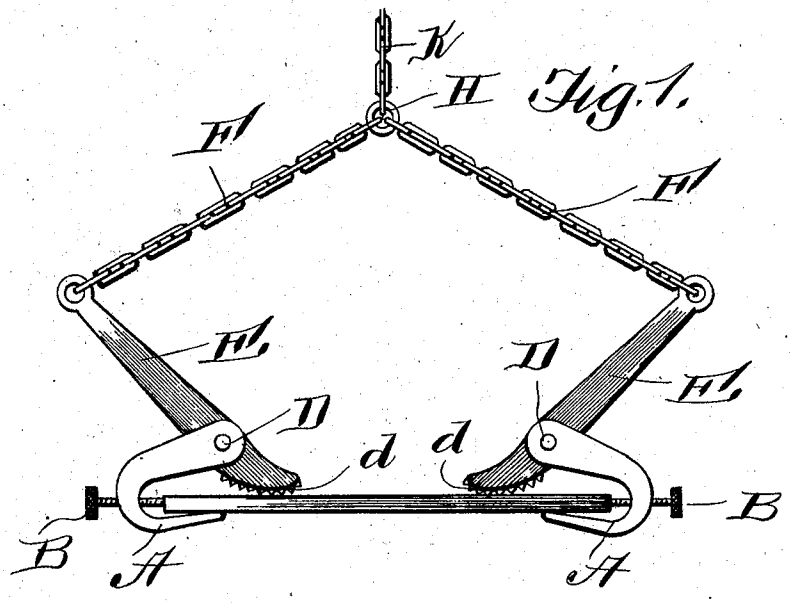
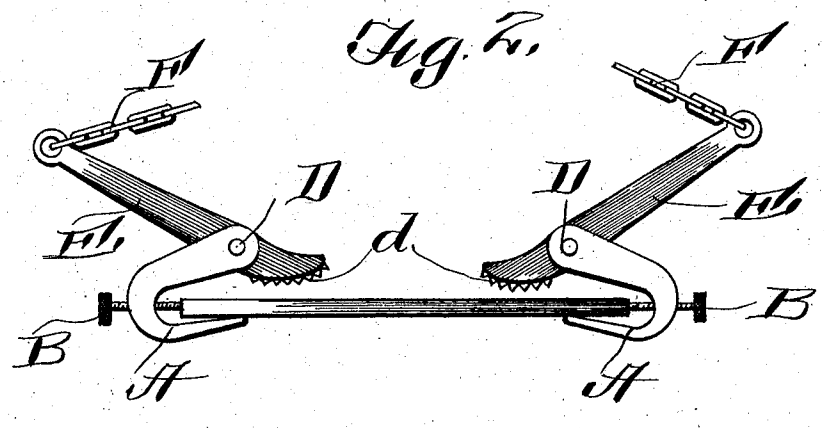


Fig. 2.



Witnesses

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DEVICE FOR LIFTING HEAVY METALLIC PLATES.

No. 815,452. Specification of Letters Patent. Patented March 20, 1906.

Application filed September 21, 1905. Serial No. 279,529.

To all whom it may concern:

Be it known that I, MOSES MAYNARD, a citizen of the United States, residing at Hancock, in the county of Houghton and State of Michigan, have invented certain new and useful Improvements in Devices for Lifting Heavy Metallic Plates; and I do hereby 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in apparatus for lifting heavy metallic plates found in ship-yards, &c.; and the object of the invention is to provide a simple and efficient device whereby a plate may be securely gripped and held while being raised and conveyed from one location to another.

My invention consists in various details of construction and in combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which—

Figure 1 shows the application of my invention as gripping and holding a plate, and Fig. 2 is an enlarged detail view showing the jaws held from gripping contact with the plate.

Reference now being had to the details of the drawings by letter, A designates two hooks, each of which has a flat portion upon which the opposite marginal edges of the plate are adapted to rest, as shown in the drawings. B B designate set-screws, each passing through said hook and against the inner ends of which plates are adapted to be held in the manner about to be described. Each of said hooks carries a pivotal point D, and E E designate levers pivoted each upon one of said points D, and F F designate chains secured at their corresponding ends to the levers E and connected together to an eye H, to which a chain or hoisting-cable K is connected. The inner end of each of said levers E upon its under edge is convexed and provided with a series of spurs or teeth *d*, which are designed as the outer ends of the levers are raised to bite or grip the upper surface of the plate and cause the opposite edges of the plate to bind frictionally against the inner ends of said set-screws, thereby securely holding the plate while it is engaged by the hooks. The greater the tension upon the spur ends of the hooks the more securely will the plate be held by the latter, thus effectually preventing the hooks from becoming accidentally detached from the plate and allowing the same to be transported from place to place.

By the provision of the set-screws mounted in the manner shown and which comprises the essential feature of my invention, I afford means for securely holding the plate and preventing any possible slipping of the plate upon the jaws in the event of the opposite edges of the plate not coming in contact with the edges of the hook; but the set-screws will serve to give a lateral adjustment to the plate which might prevent injuring of its surface at various locations through contact with the indented jaws.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An apparatus for holding plates, comprising hooks adapted to engage the opposite edges of a plate, a set-screw carried by each hook, levers pivoted to said hooks and adapted to hold said screws against the edges of the plate, as set forth.

2. An apparatus for holding heavy metallic plates, comprising hooks having flattened portions adapted to receive the opposite edges of a plate, set-screws passing through said hooks and adapted to engage the edges of the plate, and levers pivoted one to each of said hooks, and having teeth upon their plate-engaging portions designed to hold the set-screws against the edges of the plate, as set forth.

3. An apparatus for holding heavy metallic plates, comprising hooks having flattened

portions adapted to receive the opposite edges of a plate, set-screws passing through said hooks and adapted to engage the edges of the plate, a lever pivotally connected to each of said hooks, the under edge of each lever near one end being convexed and provided with spurs designed to engage a plate and hold the inner end of the set-screw against the edge thereof, and cables connecting the outer ends of said levers, as set forth.

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

MOSES MAYNARD.

Witnesses:

W. FRANK JAMES,

KATE A. BIRK.