

A. X. MILLER.

LOG CHAIN.

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994,180.

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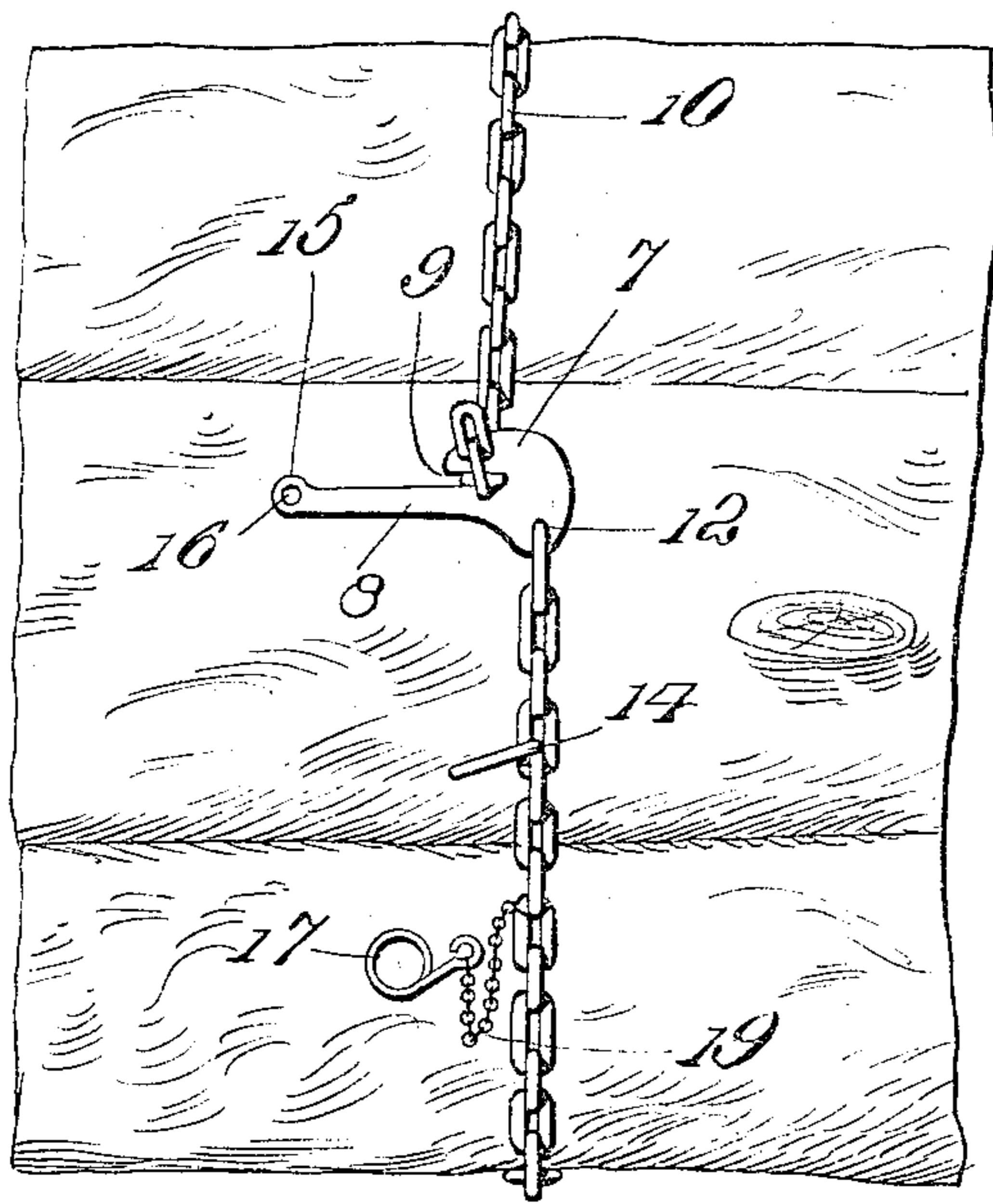


Fig. 1.

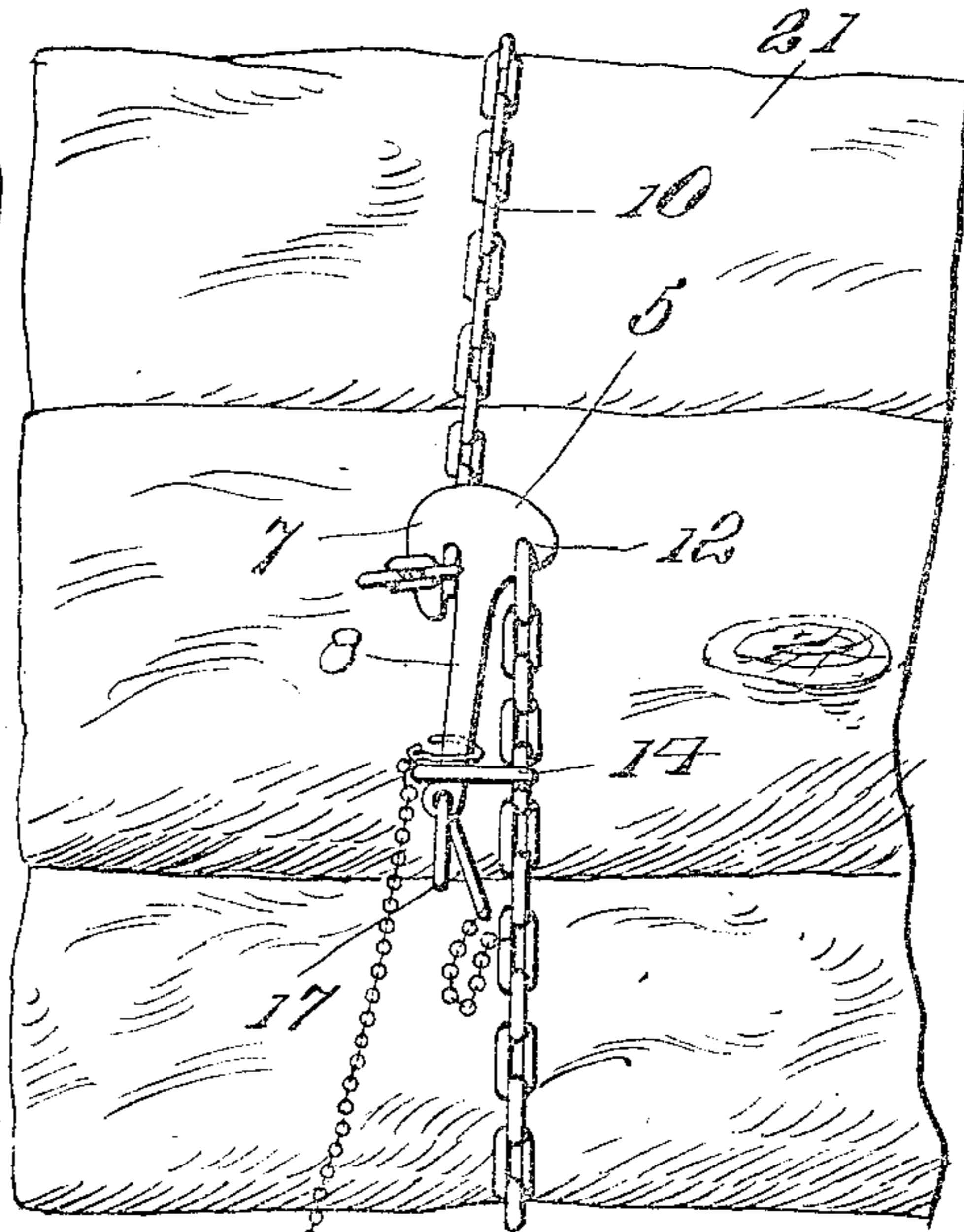


Fig. 2.

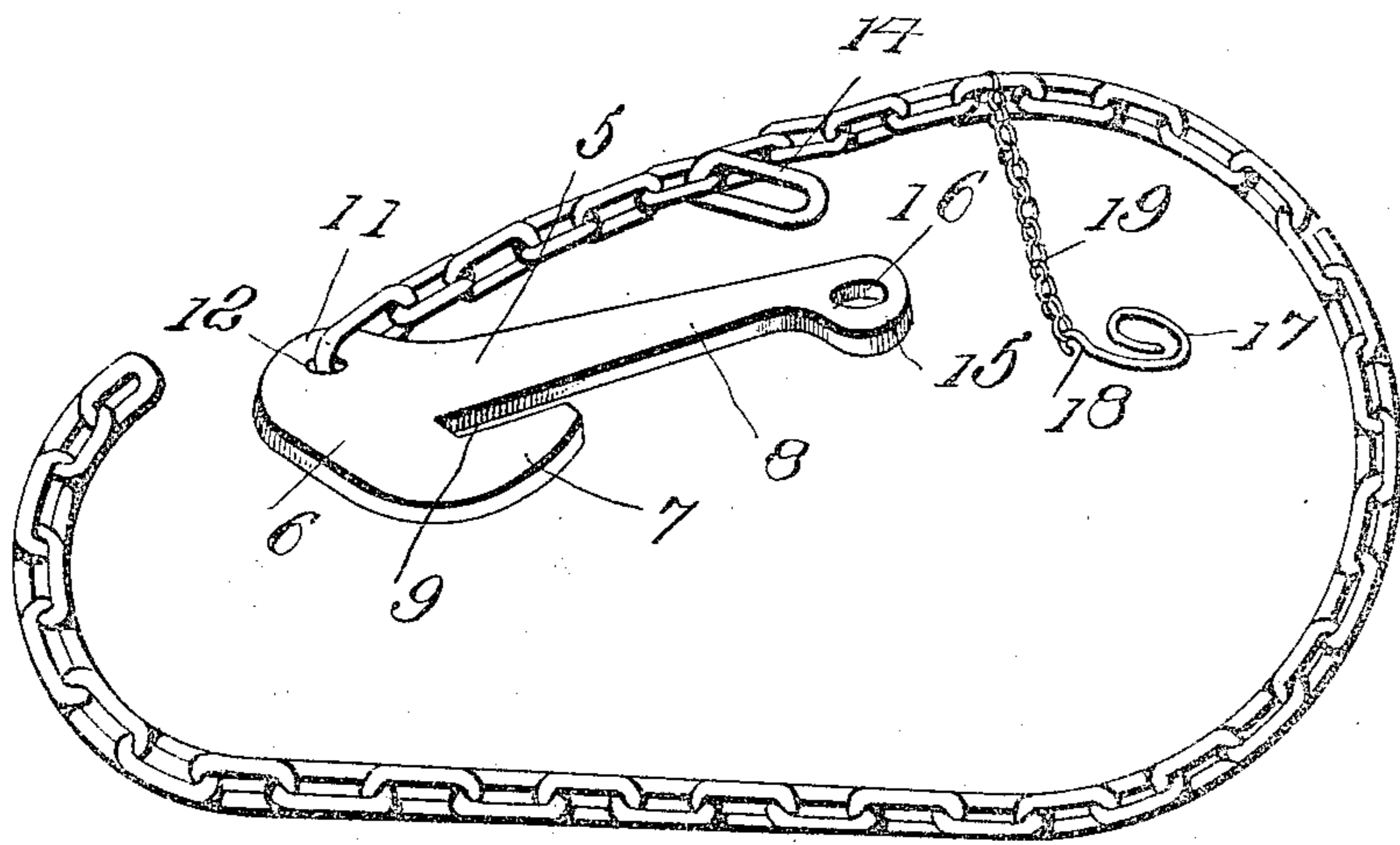


Fig. 3.

Witnesses

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LOG-CHAIN.

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To all whom it may concern:

Be it known that I, ALFRED X. MILLER, a citizen of the United States, residing at Marinette, in the county of Marinette and State of Wisconsin, have invented certain new and useful Improvements in Log-Chains, of which the following is a specification.

This invention relates to trip hooks for logging chains and has for its object the provision of a comparatively simple and thoroughly efficient device of this character, by means of which a chain or other flexible binding element may be securely fastened around a number of logs or other load so as to prevent accidental separation thereof during transportation or shipment.

A further object is to provide a trip hook, the construction of which is such that the same may be used as a chain tightener.

A further object is to provide a hook having a binding chain secured to one end thereof and provided with a trip link adapted to embrace the shank of said hook, means being provided for tripping the link, thereby to release the hook when it is desired to dump the load of logs.

A still further object of the invention is generally to improve this class of devices, so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation of a trip hook constructed in accordance with my invention, showing the same in position on a load of logs, the shank of the lever being in position to be swung downwardly for engagement with the trip link; Fig. 2 is a similar view, showing the trip link in engagement with the shank of the hook; Fig. 3 is a perspective view of one of the hooks showing the binding element attached thereto.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved device forming the subject matter of the present invention comprises a hook 5 preferably formed of a single piece of flat metal and provided with an enlarged head 6, the bill 7 of which is spaced from the adjacent portion of the shank 8 to produce an intermediate slot 9 for engagement with one of the links of a chain or other binding element, indicated at 10. The head 6 is provided with a lateral enlargement 11 having an opening 12 formed therein and preferably disposed slightly above the closed end of the slot 9 for engagement with a portion of the binding element or chain 10. Secured to the chain 10 is a trip link 14 adapted to embrace the shank 8 of the hook when the latter is swung downwardly to the position shown in Fig. 2 of the drawings; thus to hold the hook against tilting movement. The lower end of the shank 8 is provided with an offset portion 15 which serves to assist in preventing accidental displacement of the link 14, there being an opening 16 formed in the shank opposite the offset portion 15 thereof for the reception of a locking key 17. The locking key 17 is preferably formed from a single length of spring wire, one end of which is bent to produce a coil, while the other end thereof is formed with an eye 18 for engagement with the adjacent end of a short chain section 19, the other end of the chain 19 being secured to one of the links of the chain 10, as best shown in Fig. 3 of the drawings.

In operation, the chain 10 is passed around a load of logs, indicated at 21 and the shank 8 of the hook grasped in the right hand and said hook moved upwardly until the bill thereof engages one of the links of the binding element, said link being inserted in the slot 9, as best shown in Fig. 1 of the drawings. The operator then exerts a downward pressure on the shank 8 which causes the lower or perforated end of the shank to assume a position substantially parallel with one end of the chain 10, and at the same time exert a longitudinal pull on the other end thereof so as to tighten the chain and cause said chain to effectually grip the load of logs. The trip link 14 is then passed over the free end of the shank 8, after which the locking key 17 is introduced in the opening 16 and in which position, the hook will be securely held against tilting movement during transportation or shipment of the logs, as best shown in Fig.

2 of the drawings. In order to dump the logs, it is merely necessary to detach the key 17 from the opening 16 in the shank of the hook and place the hooked end of an ordinary trip chain 20 around the shank 8 or against the link 14 and exert a slight longitudinal pull thereon which disengages the trip link 14 from said shank and causes the latter to move upwardly in the arc of a circle, so as to cause the chain 10 to slip out of the slot 9, thus releasing the logs and allowing the same to be deposited on the ground.

Attention is here called to the fact that the opening 12 is disposed in a plane slightly above the closed end of the slot 9 so as to insure a trip action of the hook 5, while the offset portion or enlargement on the shank, by engagement with the link 14, serves to prevent said link from slipping longitudinally on the shank of the hook when the locking key 17 is detached and until a slight downward pressure is exerted on said link by means of the chain 20. Such a construction prevents premature release of the hook when the operator removes the key 17 so as effectually to prevent the logs from falling on the operator when walking around the load preparatory to dumping the same. It will of course be understood that the binding element may be made in one or more sections, the main object of the device being to draw the adjacent ends of said binding element together so as to prevent accidental displacement of the load.

Having thus described the invention, what is claimed as new is:

1. A device of the class described including a binding element, a hook secured to one portion of the binding element and adapted to engage another portion thereof, a link carried by said binding element and adapted to embrace the shank of the hook, and a locking key extended through the free end of the shank beneath the link for preventing accidental displacement of said link.

2. A device of the class described including a binding chain, a hook secured to one portion of the chain and provided with a slot adapted to receive one of the links of said chain, a trip link carried by the chain

and adapted to embrace the shank of the hook, and a locking key engaging the lower end of the shank.

3. A device of the class described including a binding chain, a hook secured to one portion of the chain and provided with a bill spaced from the shank of the hook to form a slot for engagement with one of the links of said chain, there being an enlargement formed on the shank of the hook, a trip link carried by the chain and adapted to embrace the shank of the hook at said enlargement, and a locking member extending transversely through an opening in the shank of the hook at said enlargement.

4. A device of the class described including a binding chain, a hook having an enlarged head provided with an opening for the reception of one of the links of the binding chain and having its bill spaced from the shank of the hook to form a slot for engagement with another link of said binding chain, the opening in the head being disposed in a plane above the closed end of the slot, there being an enlargement formed on one side of the shank of the hook at the lower end thereof, a trip link carried by the binding chain and adapted to embrace the shank of the hook at said enlargement, a locking key extending through the opening in the shank of the hook at the enlargement, and a connection between the locking key and the binding chain.

5. A device of the class described including a binding chain, a hook secured to one portion of the binding chain and provided with a perforated shank and an overhanging bill spaced from the shank to form a slot for engagement with one of the links of said chain, a trip link carried by the binding chain and adapted to embrace the shank of the hook, a locking key having a terminal coil adapted to enter the perforation in the shank of the hook, and a flexible connection between the locking key and binding chain.

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

ALFRED X. MILLER.

Witnesses:

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FRANK REED.