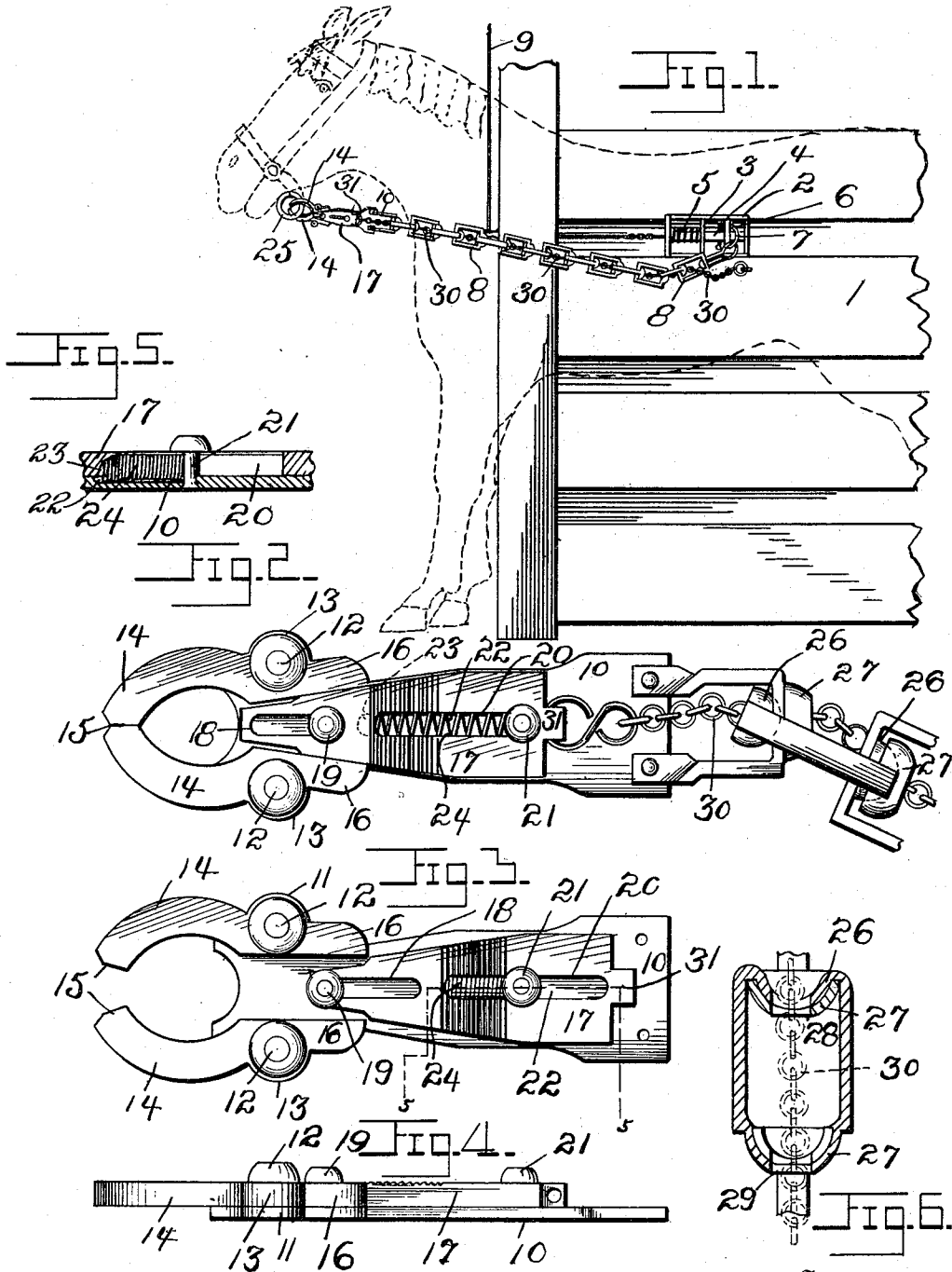


T. J. WILLIAMS.
HOLDING DEVICE.
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1,000,868.

Patented Aug. 15, 1911.



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UNITED STATES PATENT OFFICE.

THOMAS J. WILLIAMS, OF WASHINGTON, DISTRICT OF COLUMBIA.

HOLDING DEVICE.

1,000,868.

Specification of Letters Patent. Patented Aug. 15, 1911.

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To all whom it may concern:

Be it known that I, THOMAS J. WILLIAMS, citizen of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Holding Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to automatically operating releasing devices especially adapted for fire engine houses or the like, where it is necessary that the animal may be quickly released from the stall when occasion for such release arises, and the invention has particularly in view an automatically operated device for releasing the halter chain from the stall and an automatically operating device for releasing said chain from the halter, so that the animal will be entirely free to run to the engine or the like ready for the harnessing.

In carrying out the objects of the invention generally stated above it will, of course be readily understood that the essential features thereof are susceptible of changes in details and structural arrangements, a preferred and practical embodiment of which is shown in the accompanying drawings, wherein—

Figure 1 is a side elevation of a portion of a stall showing the practical application of the present invention. Fig. 2 is a detail side view of the halter catch and a portion of the halter chain and catch operating chain or cable. Fig. 3 is a similar view of the catch, the same being shown in its released position, the chain connections with the stall being omitted. Fig. 4 is an edge view thereof. Fig. 5 is a central vertical sectional view taken on the line 5—5, Fig. 4. Fig. 6 is a detail sectional view of one of the links of the halter chain, the halter releasing chain being indicated in dotted lines to show its relative position to said link.

Like characters of reference designate corresponding parts in the several figures of the drawings.

Referring to said drawings, 1 designates a portion of one side of the common form of stall used in engine houses, patrol and ambulance stables, or the like, and which has secured thereon a substantially rectangularly shaped frame 2 provided with a vertically arranged centrally located division bar 3 forming a support for a horizontally arranged slide rod 4 which also has a slidable

engagement with one end of said frame, and between said end and said division a coiled spring 5 is carried by said slide rod the tension of which resists a horizontal movement of the slide rod in one direction. The portion of said rod that is normally in the other end portion of said frame is provided with a shoulder 6, and beyond said shoulder 6, an end ring 7 carried by a halter chain 8, is mounted on said slide rod. Normally the described mechanism is in the position shown in Fig. 1 of the accompanying drawings, the slide rod being connected by means of a cable 9 with suitable mechanism for imparting a pull thereon when an alarm is sounded. It will be seen that a pull on said cable 9 will move said slide rod horizontally to withdraw it from the portion of said frame in which the end of the chain is being supported, with the result that said rod is disengaged from said chain, and the latter drops from the frame. The other end of said chain 8 is riveted or otherwise permanently secured to a flat plate 10, the other end of which is provided with outstanding side pivot ears 11 for the reception of pivot pins 12 which engage with pivot ears 13 of oppositely disposed hooks 14 the outer or free ends 15 of which are preferably incurved and project beyond the end of said plate and have their extreme ends squared off so that when said ends are brought together, as will be presently described, they will have a straight meeting edge. The rear legs 16 of said hooks have their inner edges inclined rearwardly and outwardly so that a wedging plate 17 may force said legs apart to cause the hook ends to be brought together. Said wedging plate has a forward slot 18 arranged longitudinally and centrally therethrough for the reception of a guide pin or lug 19 carried by the plate 10. The rear portion of said wedging plate is also provided with a centrally located longitudinally arranged slot 20 which is preferably considerably longer than the forward slot 18 with which it is in alinement, and said slot 20 is engaged by a headed pin or lug 21 carried by the plate 10, said pin 21 and the pin 18 serving to guide said wedging plate in its forward and rearward movements relatively to the plate 10. An elongated recess 22 is formed in the plate 10 directly beneath the opening 20 in the wedging plate, one end of the slot 20 is provided with a pocket 23 which receives one end of a spiral

spring 24 that lies in said recess 22, the other end of said spring being held beneath the head of the pin 21. The spring 24 projects up into the slot 20 and is constantly exerting a pressure against one end thereof tending to force the wedging plate to the position shown in Fig. 2, which causes the legs of the catch to rock outward and throw the hook ends together so as to be in engagement with the halter ring 25, as shown in Fig. 1.

It has been found that often the connections between the halter releasing device and the stall are damaged and rendered inoperative on account of the constant chafing of the same against the side of the stall, and also on account of the horse "cribbing" the same. To overcome this objection it is proposed using a halter chain, the links of which are constructed so that they will provide both a guide and a protecting cover for the chain or cable that automatically releases the halter chain from the halter. The details of said chain links are shown more clearly in Figs. 2 and 6 of the accompanying drawings, and by reference thereto it will be observed that each link has a concaved end 26 and a convexed end 27, having openings 28—29 formed through them which are in alinement. Said concaved and convexed ends present rounded wearing surfaces and when said links are together, they form a ball and socket connection between the links, so that a halter releasing chain or cable 30 may be extended entirely through all the links of the chain, and be thoroughly protected thereby. One end of said chain or cable 30 is connected to the side of the stall adjacent to the frame to which the end of the halter cable is releasably connected, the other end of said chain or cable 30, after passing through the halter chain, being attached to an outstanding ear 31 carried by the wedging plate. Said chain or cable 30 is preferably slightly longer than the halter chain, so that when the halter chain is automatically released from the stall releasing

frame, the pull exerted by the animal starting forward will first be imparted to said halter chain to cause it to drop from said frame, after which the pull will be exerted on the chain or cable 30 which draws the wedging plate from between the legs of the catch hook, whereupon a slight pressure on said hooks by the outward pull of the halter ring thereon, will cause said hooks to open and release the said halter ring.

It will be understood from the foregoing that the improved releasing device is one that can be readily installed and cheaply constructed, and owing to its automatic operation, it is especially adapted for places where there is a necessity of a quick and automatic release of the animals.

Claims:—

1. A device of the character described comprising a supporting plate, gripping jaws pivoted upon one end of said plate and each provided with an inwardly projecting leg, a wedge-shaped spring pressed member slidable upon said plate and normally retained between said legs to hold the jaws in closed position, means whereby said member may be removed from between said legs, said member being adapted to return to normal position when released, and guide means for said member.

2. A device of the class described comprising a supporting plate, gripping jaws pivoted to one end of said plate and each provided with a rearwardly projecting leg, a wedge-shaped member slidably supported between said legs, spring means normally holding said wedge-shaped member between said legs to hold the jaws in closed relation, and means whereby said member may be removed from between said legs.

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

THOMAS J. WILLIAMS.

Witnesses:

J. STEWART RICE,
J. W. WELLS.