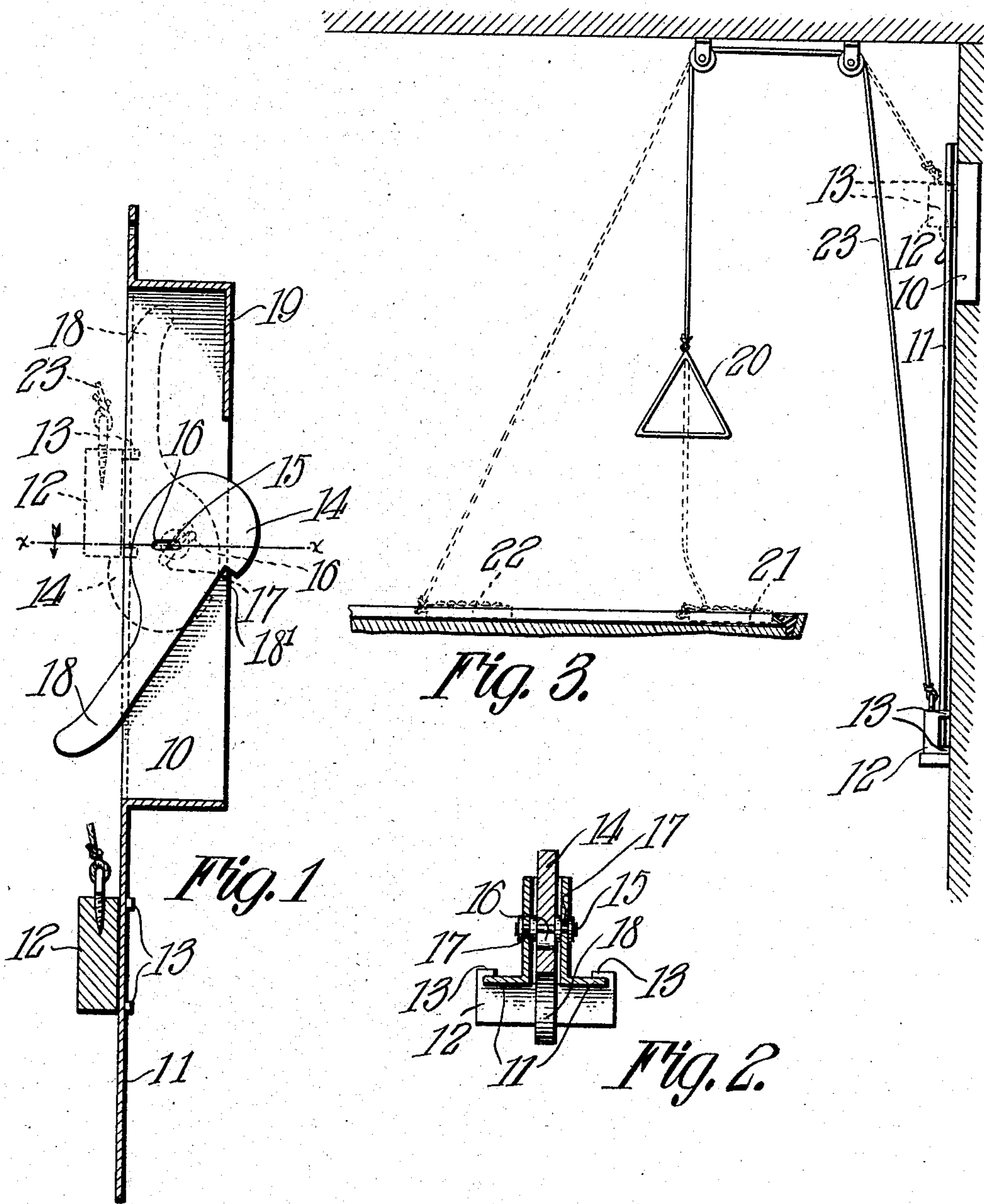


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 AUTOMATIC CATCH.
 APPLICATION FILED FEB. 29, 1908.

905,262.

Patented Dec. 1, 1908.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANK WILLIMAK, OF SNOHOMISH, WASHINGTON.

AUTOMATIC CATCH.

No. 905,262.

Specification of Letters Patent.

Patented Dec. 1, 1908.

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To all whom it may concern:

Be it known that I, FRANK WILLIMAK, a citizen of the United States, residing at Snohomish, in the county of Snohomish and State of Washington, have invented a new and useful Automatic Catch, of which the following is a specification.

This invention relates to catches, and more especially to that kind that are automatically set and released.

The object of the invention is to provide an improved form of catch adapted for general use whenever it is desired to automatically lock an object from movement and release the same.

The invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and specifically claimed.

In the accompanying drawings:—Figure 1 is a longitudinal section through the invention. Fig. 2 is a transverse section of the same on the line $x-x$ of Fig. 1. Fig. 3 shows one application of the device, in this instance to a pool ball triangle.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The invention consists of a casing 10 having guides 11 formed thereon, and in the instance here shown, these guides are in the form of a flat plate flanged outwardly from the casing. A slide 12 is mounted on this casing, and is provided with lugs 13 which embrace the guides 11. For the purpose of the invention this is a convenient manner to mount the slide, but it is obvious that any other guide and means of holding the slide therein is equally well adapted for this purpose.

Mounted within the casing 10 is a latch 14. This latch is mounted on a pin 15, a slot 16 being provided in the latch for the reception of the pivot pin, and an inclined slot 17 being provided in the casing for the same purpose. It will thus be seen that the latch is loosely mounted on the pin, and the purpose of this will be hereinafter apparent. The latch is provided with an arm 18 extending therefrom and a holding shoulder 18', and it will be noted that at all times the greater part of the weight of the catch lies on the pin 15 in such manner that the tendency is to assume the position shown in full lines in

Fig. 1, or in other words, with the vertical plane of the center of gravity of the latch at a point between the pin and the side of the casing on which the block is mounted. This pin is held to move in the slots 17 and 16 by any suitable arrangement, as the washers shown in Fig. 2, these serving to keep the pin in parallel position to prevent jamming.

At 19 it will be seen that the casing extends behind the lever 18 when the latch is in the operative position, as indicated by the dotted lines in Fig. 1.

The operation of the device will probably be best understood by referring to a special case, as, for instance, as illustrated in Fig. 3. In this case there is shown in full lines the position of a pool ball triangle indicated by the numeral 20 when the same is not in use. At 21 is shown the pool ball triangle when the same is laid on the table, and ready to receive the balls, and at 22 is shown the same triangle when the balls are "spotted." In the full lines it will be noted that the block 12 is made in the form of a counterweight, so the triangle 20 is normally held out of the way of the players. When it is desired, however, to "spot" the balls or replace them on the table at the beginning of the game, the triangle 20 is pulled down and placed on the table a little in advance of the position shown at 21. This causes the block 12 to travel up the guide 11 until it reaches a position a little higher than that indicated by the dotted lines in Fig. 1. Referring now to this figure, as the block 12 strikes the lever 18 shown in the full line in Fig. 1, the latch is rotated to the position shown in dotted lines in Fig. 1 and projects upward at a right angle, it being prevented from straightening entirely up by the point of the latch striking the lower side of the block. Were the latch mounted on a fixed pivot it would thus be impossible to move the block any further up, but on account of the slot and pivot mounting, the entire latch and lever bodily slide backward in the casing, thus permitting the block to pass to a position a little higher than that indicated in the dotted line. The triangle is then drawn backward to a position such as at 21, which slackens the cord 23 by means of which it is attached to the block 12, thus permitting the block 12 to fall back and rest on the holding shoulder 18' of the latch, as shown in the dotted line in Fig. 1. The balls having been placed in this triangle, they are pushed forward, as shown at 22.

This pulls the block further up on the guide to a position entirely beyond the end of the lever 18, thus freeing the same and permitting it to assume the position shown in full lines. It will now be obvious that the triangle may be removed from the balls and the block 12 acting as a counter-weight will pull it back to the position 20, inasmuch as the block is free to pass over the end of the lever 18 merely shoving it inside of the casing.

It will be noted that if the block be drawn up very quickly, the tendency is for the arm 18 to be thrown entirely around and therefore the part 19 of the casing is closed in, as shown, to act as a stop to limit the motion of the arm 18, thus preventing its being thrown too far back.

While the device is here shown in connection with a pool ball triangle, it is obvious that it may be used in very many other connections, as, for instance, it may be used to hold a window open. It, also, may be used to support a bunch of bananas, and in many other ways. It is not, therefore, desired to limit the use of the invention to the special arrangement with a pool ball triangle as herein shown, but it is desired to claim broadly the latch itself.

What is claimed is:—

1. In a device of the kind described, a casing, a guide, a block slidable on said guide, a shouldered latch pivotally mounted on the said casing provided with a weighted arm arranged to project downward in the path of said block when said latch is in inoperative position, and adapted to rotate said latch into operative position as the block is drawn up above the pivot point.

2. In a device of the kind described, a casing, a guide, a block slidable on said guide, a shouldered latch pivotally mounted on said casing provided with a weighted arm arranged to project downward into the

path of said block when said latch is in inoperative position, and adapted to rotate said latch into operative position as the block is drawn up above the pivot point, and release said latch when the block is drawn up from the position opposite the pivotal point to a position above the end of said arm.

3. In a device of the kind described, a casing having oppositely disposed slots therein, a guide, a block slidable on said guide, a shouldered latch provided with a slot held in said casing, a pivot passing through the slots in said catch and casing, a weighted arm formed on said latch arranged to project downward in the path of said block when said latch is in inoperative position and adapted to rotate said latch into operative position when the block is drawn up past the pivot point.

4. In a device of the kind described, a casing having oppositely disposed slots therein, a guide, a block slidable in said guide, a shouldered latch provided with a slot held in said casing, a pivot passing through the slots in said catch, and casing, a weighted arm formed on said latch arranged to project downward in the path of said block when said latch is in inoperative position and adapted to rotate said latch into operative position when the block is drawn up past the pivot point, and release said latch when the block is drawn up from the position opposite the pivotal point to a position above the end of said arm.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FRANK WILLIMAK.

Witnesses:

F. V. URBAN,
LENDIS F. DAHL.