

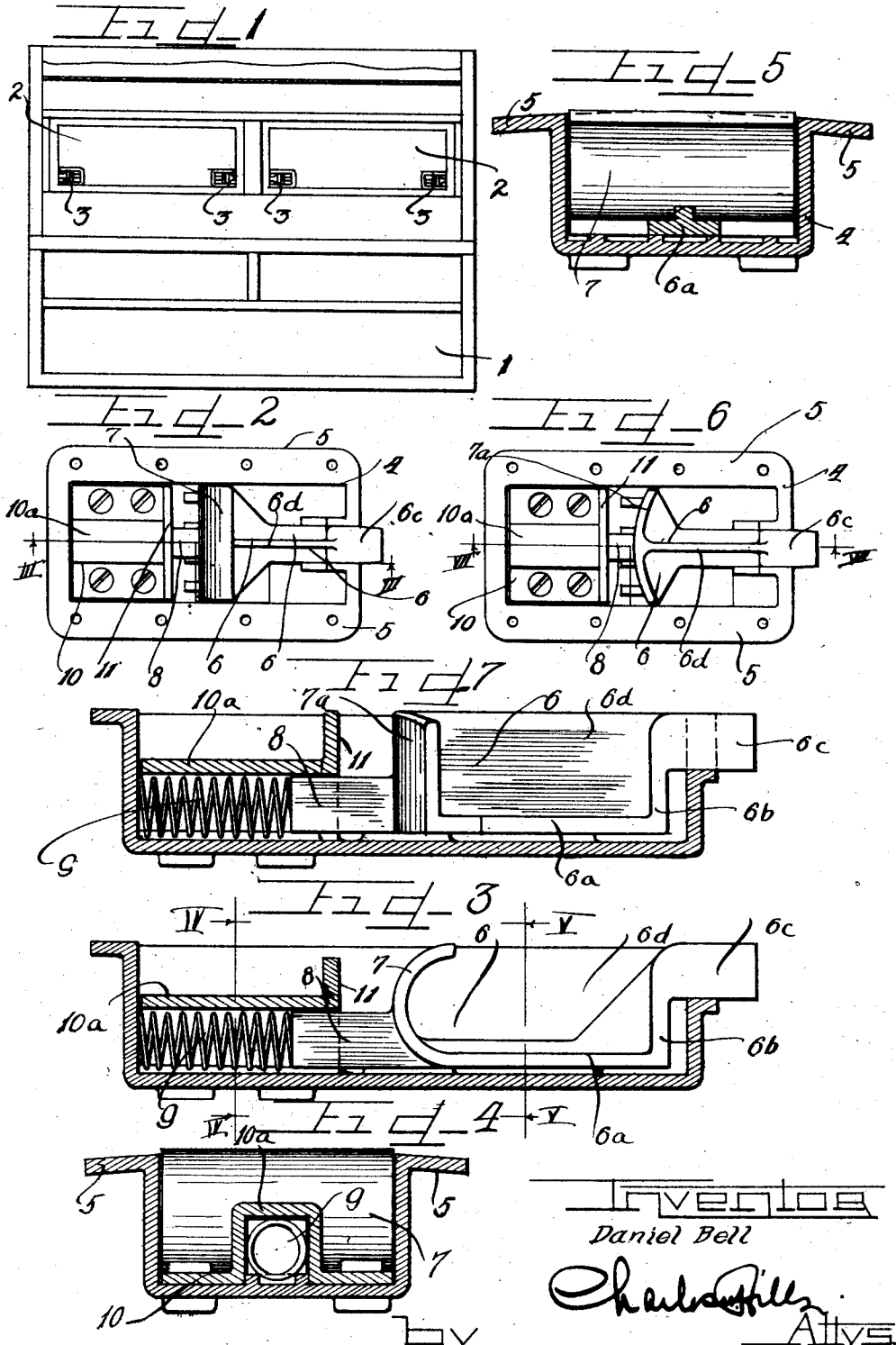
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CYLINDER DOOR LATCH

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CYLINDER DOOR LATCH.

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This invention relates to a cylinder door latch and it is an object of this invention to provide a latch which can be readily manipulated by the fingers of an operator and held in unlocked position while the cylinder door is being opened.

The invention comprises the novel structure and combination of parts hereinafter described and more particularly pointed out and defined in the appended claims.

In the accompanying drawings which illustrate a preferred embodiment of this invention and in which similar reference numerals refer to similar features in the different views:

Figure 1 is a fragmentary plan view of a rotating cylinder.

Figure 2 is a top plan view of the latch for latching the door of the cylinder.

Figure 3 is an enlarged sectional view upon the line III—III of Figure 2.

Figure 4 is a transverse sectional view upon the line IV—IV of Figure 3.

Figure 5 is a transverse sectional view upon the line V—V of Figure 3.

Figure 6 is a top plan view of a slight modification of the latch.

Figure 7 is an enlarged sectional view upon the line VII—VII of Figure 6.

As shown on the drawings:

In referring to the drawings there is shown a portion of a cylinder 1 which may be a washing cylinder or a drying cylinder. This cylinder is shown as equipped with a pair of sliding doors 2 each door having a pair of latches 3.

Each latch consists of a casing 4 provided with laterally extending attaching flanges 5 by means of which it may be bolted to a cylinder door, the body of the casing extending into a suitable recess in the top of the door. Within each casing there is a sliding or latch bolt 6 which extends through a suitable opening formed in one end of the casing adjacent the top thereof. It will be noted that the bolt consists of a base portion 6^a which slides on the bottom of the casing, a rising flange 6^b which carries the engaging portion 6^c of the bolt and a vertical rib 6^d which extends rearwardly from the engaging portion 6^c and verges into a transverse handle or finger piece 7 or 7^a. The finger piece 7 is shown as of arcuate contour in vertical direction so that the fingers of a person may readily engage

in such arcuate portion. The finger piece 7^a which is shown in Figures 6 and 7 is transversely arcuate. Projecting rearwardly from the finger piece there is a lug 8 on the bolt. This lug is adapted to be engaged by the end of a coil spring 9 which is positioned between the end of the lug and the end of the housing. A cover plate 10 is bolted to the bottom of the casing 4 at the rear end thereof. This cover plate 10 is provided with an intermediate raised portion 10^a to provide a suitable guide housing for the spring 9 and the lug 8 as shown in Figures 3 and 7. This cover plate 10 is provided with a rising flange 11 at its front end which forms an abutment for the fingers of the operator when sliding the bolt 6 rearwardly.

It will be noted that each door is provided with two latches and in order to open the door, the operator will use his fingers and thumb of each hand for engaging the abutment 11 and the finger piece 7 or 7^a, depending upon which one is used. The fingers will engage the abutment 11 and the thumb will engage the abutment 7 of one latch, while the thumb will engage the abutment 11 and the fingers will engage the finger piece of the other latch. By drawing the fingers and thumbs together, the bolts may be withdrawn from suitable recesses formed in the adjacent parts of the cylinder and as soon as the bolts are withdrawn, the operator without releasing his fingers may slide the cover with respect to the cylinder for opening or closing the doorway therebeneath. As soon as the operator releases his fingers from the abutment 11 and the finger piece of the bolt, the spring 9 will become effective for projecting the bolts against the wall of the guideway against which the sliding doors are mounted or into suitable recesses therein. Such recesses are usually placed at proper locations for locking the door in closed position and locking the same in open position.

It will be noted that the abutment 11 and finger pieces 7 or 7^a are located within the casing and do not project thereabove so that there are no projecting parts above the latch casings. Consequently there would be no damage or injury caused by any portions of the latch during the rotation of the cylinder.

I am aware that many changes may be

made, and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art.

I claim as my invention:

1. In a cylinder latch, a casing, a latch bolt slidable in said casing, said latch bolt having a finger piece and a lug projecting rearwardly of said finger piece, a cover plate secured to the bottom of the casing and having an upwardly offset portion defining a guideway for receiving said lug, and a spring confined in said guideway at the rear end of said lug, said cover having an abutment adjacent said finger piece whereby the

operator may grasp said finger piece and abutment for withdrawing said bolt.

2. In a cylinder latch, a casing, a latch bolt having an elevated nose slidable in said casing and having an arcuate finger piece and a lug rearwardly of said finger piece, a cover secured to the bottom of the casing and having an intermediate raised portion forming a guideway for receiving said lug, a spring in said guideway acting against the rear of said lug, said cover having an abutment for co-operating with said finger piece whereby the latch bolt may be withdrawn by the fingers of the operator.

In testimony whereof I have hereunto subscribed my name.

DANIEL BELL.