

their corresponding ratchet-wheels. The projections  $e^1 e^2 e^3$  now enter the notches  $f g h$ , thus lowering the tumbler and permitting the operation of the bolt. Now, suppose it is desired to change the combination to 795. The plate I is released and thrown outward while the disks are in their present position, which operation disengages the pins  $t$  from the disks and the ratchet-wheels may then be turned without affecting the position of the disks, the first one, O, at the left being turned seven teeth, (counted by the click of the dog or pawl,) the next one nine, and the third five. The plate I is then returned to its place and secured by means of the set-screw  $j$ , the pins  $t$  entering the correspondingly-numbered holes in the disks; then by turning the arbor D slightly backward the tumbler is raised and the disks turned so as to hold up the tumbler and lock the bolt in the manner hereinbefore stated.

There may be various modifications without departing from the nature of my invention. For instance, the bars K K J, attached to the plate I, may be placed inside of the lock-case. The position as well as the number of the

disks may be varied. The tumbler may be of circular form with a number of disks arranged around it, by which the number of combinations which may be used would be greatly increased.

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

1. The combination and arrangement of the disks F G H with the swinging plate I and means for securing the same, for changing the combination of numbers, substantially as shown and described.

2. In combination with the disks F G H and swinging plate I, I claim the tumbler C with projections  $e^1 e^2 e^3$ , substantially as herein described.

3. The combination of the disks F G H, devices I J K, ratchets O P Q, pawls  $p q r$ , tumbler C, bolt B, and arbor D  $d^1 d^2 d^3$ , all constructed and operating substantially as herein set forth.

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Witnesses:

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