

June 24, 1930.

S. DE VITA

1,768,193

DOOR LATCH

Filed May 11, 1928

Fig. 2.

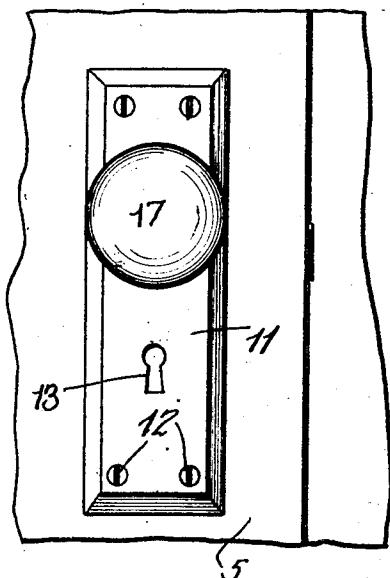


Fig. 1.

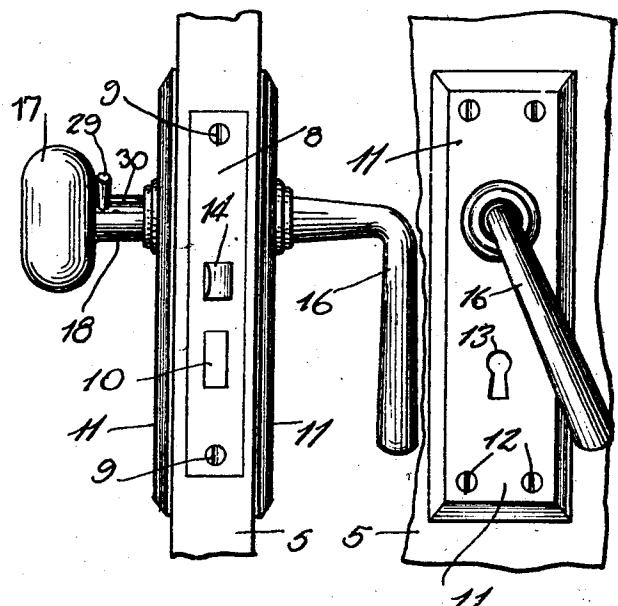


Fig. 3.

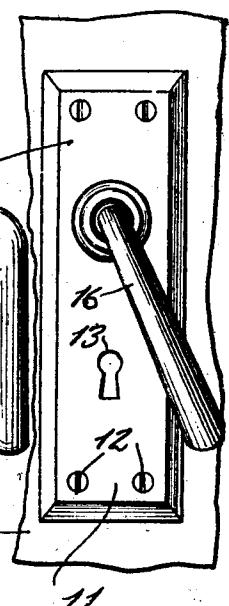


Fig. 4.

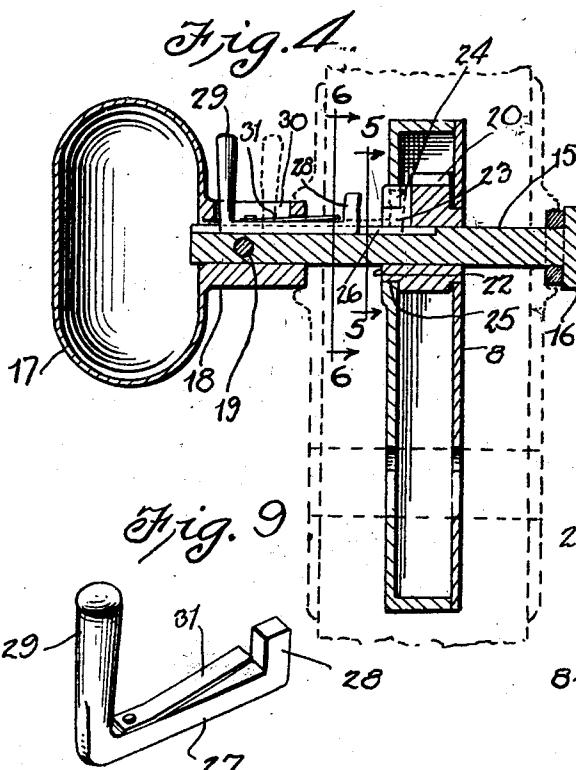
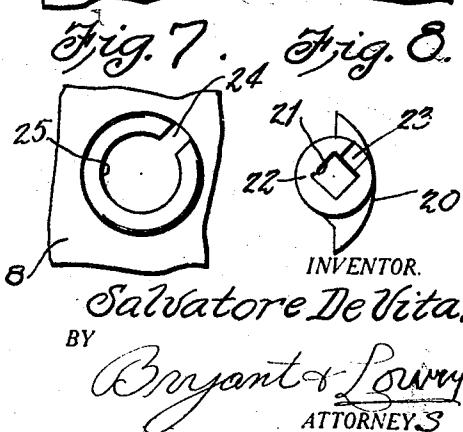
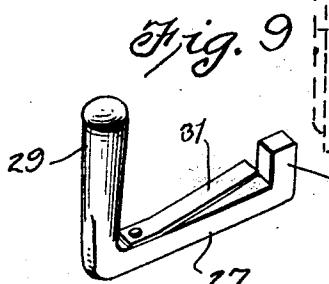
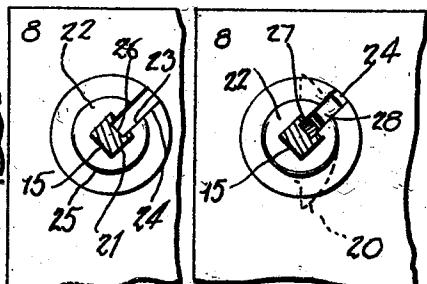


Fig. 5. Fig. 6.



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UNITED STATES PATENT OFFICE

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DOOR LATCH

Application filed May 11, 1928. Serial No. 276,925.

This invention relates to door latches of the type adapted to be fitted in a mortise in the free edge of a door and having a knob operated latch bolt for releasably holding the door closed when locking of the same is not desired.

More particularly, the present invention contemplates the provision of simple and efficient means for dogging the knob spindle against turning with the latch bolt projected and from the inner side of the door, whereby operation of the knob or handle at the outer side of the door and retraction of the latch bolt may be effectively prevented.

15 The primary object of the present invention is to provide a knob or latch spindle dogging means of the above kind which is extremely simple in construction, efficient and reliable in operation, and capable of economical embodiment in conventional forms of mortise blocks.

20 The invention consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the 25 accompanying drawings and claimed.

In the drawings:—

Figure 1 is a fragmentary edge elevational view of a door having a mortise lock provided with latch spindle dogging means embodying the present invention;

Figure 2 is a fragmentary side elevation looking toward the right of Figure 1 at the inner side of the door;

Figure 3 is a somewhat similar view looking 35 toward the left of Figure 1 at the outer side of the door;

Figure 4 is an enlarged fragmentary vertical transverse section with parts omitted, and 40 revealing details of the spindle dogging means;

Figure 5 is a vertical fragmentary section taken on line 5—5 of Figure 4;

Figure 6 is a fragmentary section taken on 45 line 6—6 of Figure 4;

Figure 7 is a view similar to Figure 5 with the latch spindle and latch bolt actuator removed;

Figure 8 is a side elevational view of the 50 latch bolt actuator; and

Figure 9 is an enlarged perspective view of the dog for the latch spindle.

Referring more in detail to the drawing, 5 indicates an ordinary swinging door in the free edge of which is provided a mortise within which is fitted a conventional mortise lock having a casing 8 fastened in place by screws 9 entering the edge of the door and flanges on the front wall of the lock casing. The lock is provided with the usual lock bolt 10 adapted 55 to be retracted or projected by the use of a suitable key inserted through key holes at opposite sides of the door and communicating with key holes in the sides of the lock casing 8 as well as in the escutcheon plates 11 fastened on opposite sides of the door 5 by screws 12 or the like. The key holes in the escutcheon plates are indicated at 13, but the details of the mechanism for projecting and retracting the bolt 10 are omitted as they are 60 conventional and well known in the art.

Slidable through the front wall of the lock casing 8 is the usual latch bolt 14 which is spring projected, and which is operatively connected with a transverse knob or latch spindle 15 for manual retraction. This spindle has an integral handle 16 on its outer end, while a removable knob 17 is fitted on the inner end thereof, the socket 18 of the knob 17 being secured on the spindle by means of the usual fastening screw 19. Arranged in the upper part of the lock casing 8 and having the opposite ends of the hub thereof journaled in bearing openings in opposite side walls of the lock casing 8 is the usual latch bolt actuator 20. The spindle 15 is of polygonal cross-section, preferably square, and extends through a similar opening 21 in the hub of the actuator 20 so that turning of the spindle will effect turning of the actuator for causing retraction of the latch bolt 14 as is well known in the art. As is usual in the assembly of devices of this kind, the spindle 15 is inserted through the lock casing and the opening 21 65 in the hub of the actuator 20 from the outside of the door, the knob 17 being then applied and fastened on the inner end of the spindle 15 by use of the screw 19.

In accordance with the present invention, the inner end portion 22 of the hub of the 70

actuator 20 is provided with a radial slot 23 normally aligned with a notch or slot 24 provided in the inner wall of the lock casing 8 and extending outwardly from the adjacent bearing opening 25 for the inner end portion 5 22 of the actuator hub. It is thus apparent that the slots 23 and 24 aline when the knob spindle 15 is normally positioned with the latch bolt 14 projected.

10 Provided in one side of the inner end portion of the spindle 15 is a longitudinal groove 26 in which is slidably fitted a dog 27 having an outturned end or outwardly directed lug 28 at its inner end and provided with a rigid outwardly projecting handle or finger piece 29 on its outer end. Provided in the socket 18 of the knob 17 is a longitudinal elongated slot 30 through which the finger piece or handle 29 projects and in which the latter is free- 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960 965 970 975 980 985 990 995 1000 1005 1010 1015 1020 1025 1030 1035 1040 1045 1050 1055 1060 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