April 17, 1956 R. THURBER 2,742,311

DOOR AND GATE LATCH

Filed April 9, 1953

Fig. 1.

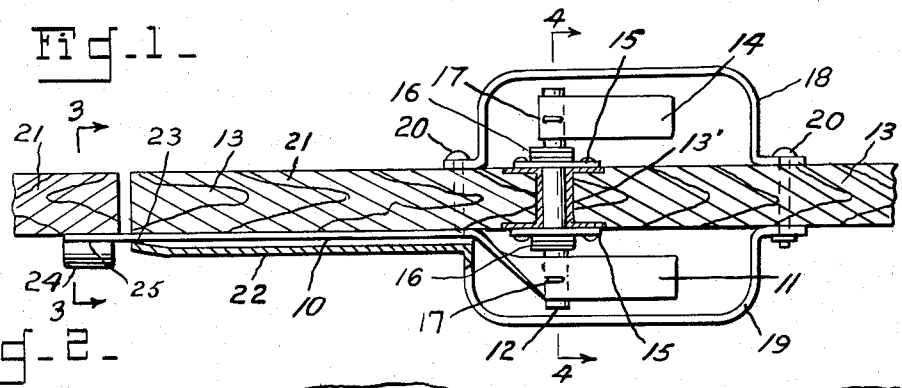


Fig. 2.

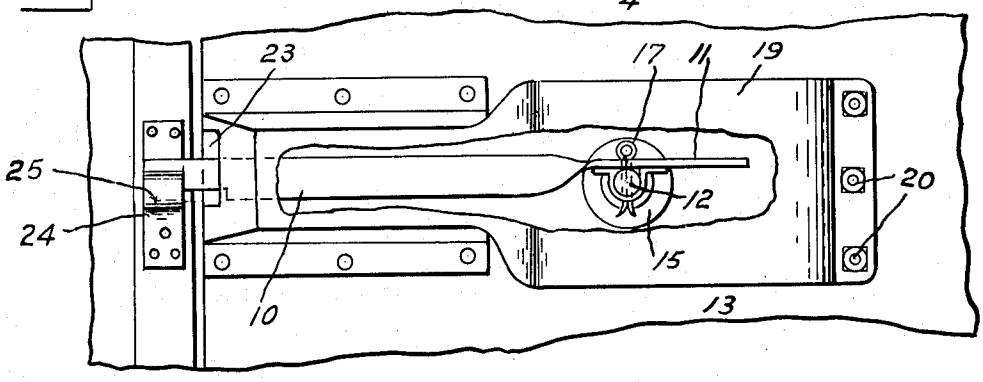


Fig. 3.

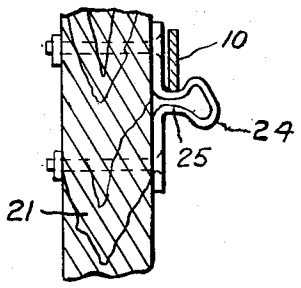
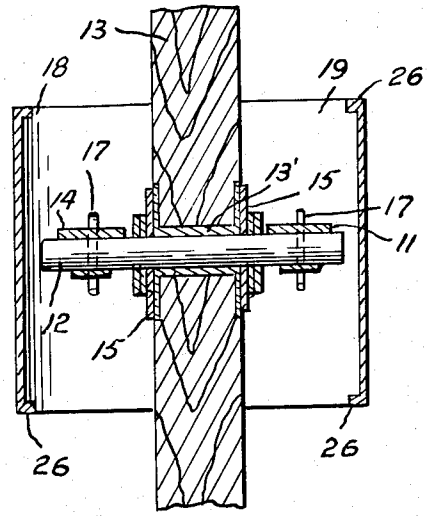


Fig. 4.



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DOOR AND GATE LATCH

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1 Claim. (Cl. 292—202)

The object of the invention is to provide a latch for the purpose indicated which will act as an effective means for reteaining the gate or door in closed position and yet be readily releasable manually to permit opening movement of the same; to provide a latch in which the operating parts are shielded that they may not be inadvertently actuated, or actuated by an animal, as is so often the case where animals, by use of the nose or foot may release the door or gate of the enclosure in which they are restrained; and generally to provide a latch of the kind indicated which is of simple form and therefore susceptible of cheap manufacture.

With this object in view, the invention consists in a construction and combination of parts of which a preferred embodiment is illustrated in the accompanying drawings, wherein:

Figure 1 is a top elevational view of the invention shown attached to a door or gate, the latter being shown in section;

Figure 2 is a side elevational view of the structure of Figure 1;

Figures 3 and 4 are sectional views respectively on the planes indicated by the lines 3—3 and 4—4 of Figure 1.

The latching or locking member of the invention consists of a bar **10** which at one end is terminated in a pressure leaf **11** formed as an integral part thereof, the leaf portion of the bar being fixedly mounted on a shaft **12** inserted through the door or gate **13** in which it has a suitable bearing which may be solely a bearing in a hole bored through the door or in a bushing seated in the door.

A pressure leaf **14** is mounted upon and fixed to the shaft **12** but on the opposite side of the door of the leaf **11**, so that the shaft may be rocked by pressure applied to either leaf.

One method of mounting the shaft, that illustrated in the drawing, consists of boring the hole through the door a little full and then attaching to opposite sides of the door the bearing plates **15** which constitute suitable bearings for the shaft which carries feeler washers **16** and to the extent necessary to prevent axial movement of the shaft. The leaves **11** and **14** may be secured to the shaft in any appropriate manner but preferably this is done by means of taper pins **17** which are easily releasable but which when driven home constitute an effective means for retaining the leaves attached to the shaft.

The latch proper is attached to that side of the door constituting the leading side in the opening operation and if the door swings inwardly, the latch is on the inside, but on the outside if the door swings outwardly.

Shields **18** and **19** cover the leaves **11** and **14** and are attached to the door by appropriate fasteners as shown at **20**. The shields cover the leaves only on the front but are open at the top and bottom so that the leaves are accessible either from the top or bottom, so that the finger may be inserted behind the shield to depress or raise the leaf to release the latch in the one instance or force it into engagement with the keeper in the other instance as may be the case in the event of any sluggish action.

The shield **19** is extended to the edge of the door. This extension of the shield, indicated at **22**, is of reduced width as respects the shield **19** but it is not open at the top or bottom, so that the latch bar is completely covered thereby and the extension is practically coextensive with the latch bar **10** and is provided with a slot **23** which serves as a clearance slot for the latch bar so that it may engage the keeper **24** which is attached to the jamb at right angles to the latter, the keeper having the usual rounded nose so that when it is engaged by the latch bar, the latter will be raised to ride over the nose and to fall into the seat **25** where it will be retained and thus retain the door or gate in closed position.

It is obvious that the latch may be actuated from either side of the gate or door to release it, the releasing operation consisting merely of inserting the finger down behind the shield and pressing the leaf, thereby rocking the shaft and raising the latch bar. It will only be necessary in cases of sluggish action to depress the latch and that may be done by imparting pressure to the leaf from the underside of its respective shield. When such condition obtains, it is an indication that lubrication of the shaft is needed.

The shields **18** and **19**, at their upper and lower edges, are turned in, as indicated at **26**, so that they may function as handholds for opening and closing the door or gate.

The invention having been described, what is claimed as new and useful is:

A door latch comprising a latch bar formed with a finger leaf in continuation thereof, bearings for mounting in the door, a shaft journalled in said bearings and having the latch bar and its attendant leaf attached thereto at one end, a leaf attached to the opposite end of the shaft so as to be positioned on the opposite side of the door from the latch bar, and shields on opposite sides of the door and covering the leaves, the shields being open at the top and bottom to permit finger access thereat to the leaves and having in-turned edges where they are open so that said shields may serve as hand grips, the shield covering the first-mentioned leaf having an extension substantially coextensive with the latch bar and enclosing the same by terminating at the edge of the equipped door and thereat provided with a clearance slot so that the extended end of the latch bar may engage a jamb-carried keeper.

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