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2,130,216

DOOR LOCKING BAR

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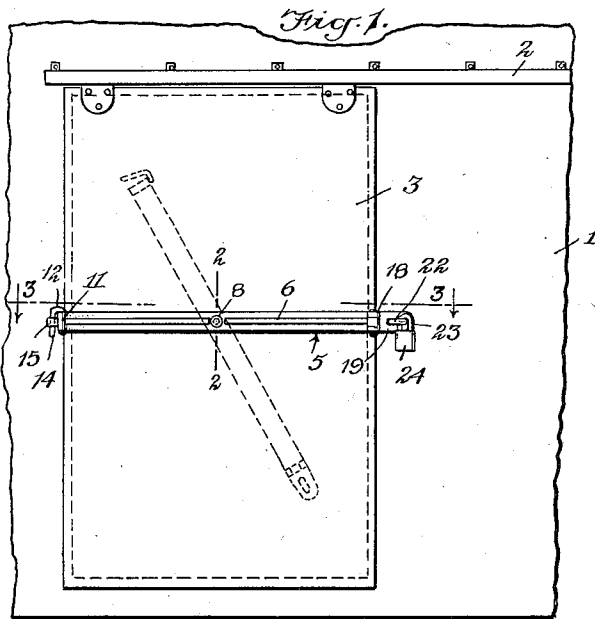


Fig. 2.

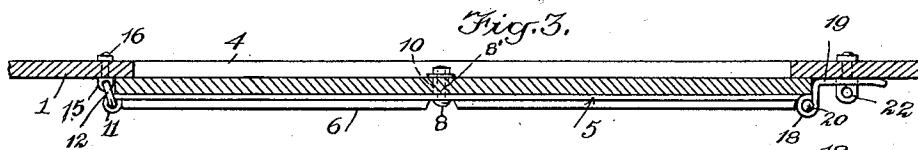
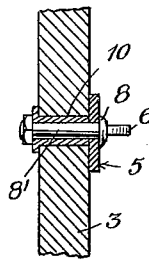


Fig. 4.

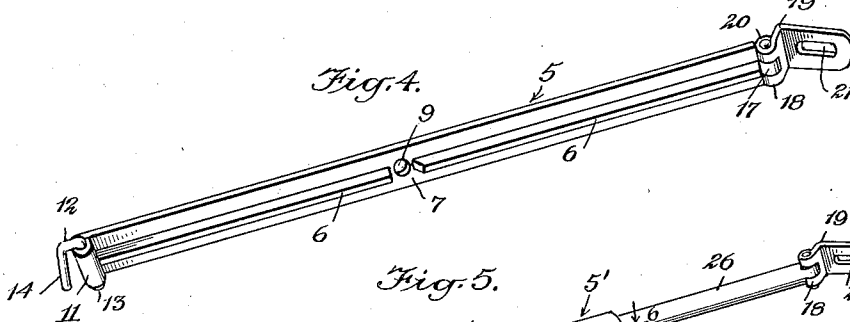


Fig. 5.

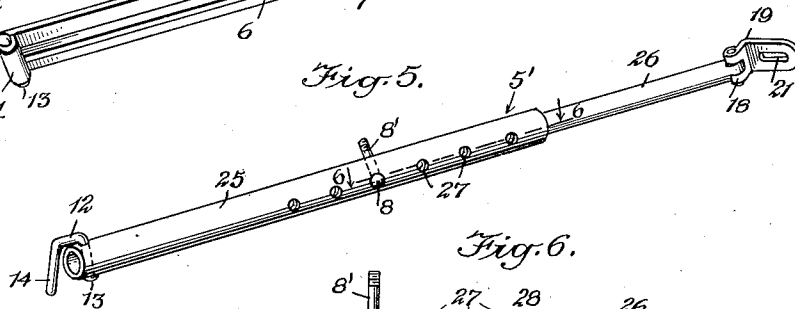
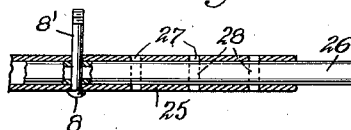


Fig. 6.



WITNESSES

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DOOR LOCKING BAR

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3 Claims. (Cl. 292-259)

This invention relates to locking bars for doors and particularly to an improved construction for locking a sliding door, an object being to provide a simple construction which will clamp the door against the building or its frame at both sides when the bar is fully functioning.

Another object of the invention is to provide a locking bar for sliding doors wherein the bar is pivotally mounted on the door and coacts with interlocking members at each side.

A further object of the invention is to provide a locking bar for sliding doors which may be integral throughout or may be made in two or more parts and adjustably connected together so as to adapt the bar to doors of different sizes.

In the accompanying drawing—

Fig. 1 is a side view of a bar in functioning position disclosing an embodiment of the invention;

Fig. 2 is an enlarged fragmentary sectional view through Fig. 1 on the line 2-2;

Fig. 3 is an enlarged sectional view through Fig. 1 approximately on the line 3-3;

Fig. 4 is a perspective view of the locking bar shown in Fig. 1;

Fig. 5 is a view similar to Fig. 4 but showing a modified construction of bar;

Fig. 6 is a fragmentary sectional view through Fig. 5 approximately on the line 6-6.

Referring to the accompanying drawing by numerals, 1 indicates the side of a building, as for instance a barn, and 2 a door runway. A door 3 is slidably mounted on the runway 2 so as at one time to cover the door opening and at another time to expose the same.

Sliding doors similar to door 3 are old and well known and usually rather loosely contact the wall of building 1. In the present invention there is provided a locking bar 5 which not only locks the door 3 closed but causes the same to press against the building 1 as illustrated particularly in Fig. 3. The locking bar 5 is made from a piece of metal, as for instance steel, and is provided with a stiffening or reinforced rib 6 extending from one end to the other centrally except for the space 7 which is reserved for the head of a pivotal bolt 8 which extends through the aperture 9. Bolt 8, as shown in Fig. 2, extends through a sleeve 10 which is permanently fixed in the door 3 and which is preferably made of metal. At one end the bar 5 is formed with an apertured enlargement 11 extending from one side of the bar. This enlargement is adapted to accommodate one leg of a U-shaped catch 12, which catch is preferably slightly upset at 13 so that it cannot be removed

from its position. The free leg 14 of catch 12 is adapted to be inserted into an eye 15 secured to the wall of building 1 in any desired manner, as for instance by having a bolt extension 16 extend therethrough and a suitable nut applied. At the opposite end of the bar 5 there is provided a hinge knuckle 17 which coacts with knuckles 18 on an L-shaped hasp 19. A suitable pintle 20 connects the knuckles together so that the hasp 19 may swing back and forth as desired. The other end of the hasp is provided with a slot 21 which is adapted to readily slide over an eye 22 secured in place in any suitable manner to the wall 1, as for instance similar to eye 13. The locking bow or shackle 23 of a padlock 24 is adapted to be inserted into the eye, as shown in Fig. 1, when the bar is in full functioning position. This prevents either end of the bar from becoming released and also acts with the catch 12 in holding the door 3 against the wall 1.

When it is desired to open the door 3, lock 24 is removed and then the bar 5 is swung upwardly, for instance to the dotted position shown in Fig. 1. This upward movement will cause the leg 14 of catch 12 to move out of the eye 15. The door 3 is then free to slide back and forth on the runway 2.

Instead of having the bar 5 made to fit only a certain size door, the same inventive concept could be arranged in a modified structure which would fit different size doors.

A modified form of the invention is shown in Fig. 5, in which it will be seen that the bar 5' is formed of a tubular part 25 and a rod part 26. These parts are each provided with apertures, namely, apertures 27 and 28. A bolt 8' is adapted to be inserted through any of these apertures after they have been properly aligned. It will be understood, however, that the sleeve 10 is preferably central of the door whether the door is large or small, and the adjustment of the parts 25 and 26 will take place before the bolt 8' is applied. Aside from these detail structures, the construction and arrangement of bar 5' is the same as bar 5 and the same reference numerals will be used.

I claim:

1. A locking structure for a door comprising a bar adapted to extend from one side edge to the other side edge of the door, means for pivotally mounting the bar to the door, a catch structure arranged at each end of the bar body, a fixed eye interlocking with one of said catch structures, a second fixed eye interlocking with the second

catch structure, and a padlock shackle extending through said second-mentioned fixed eye.

2. In a sliding door locking bar, a bar body having an aperture arranged centrally thereof, a tubular enlargement at one end, a substantially U-shaped catch having one leg rotatably mounted in said tubular enlargement, said bar body at the opposite end having a hinge knuckle, a latch formed with a pair of hinge knuckles coacting with the first-mentioned hinge knuckle, a pintle for pivotally connecting said knuckles together, said latch having an eye-receiving slot, a pivotal bolt extending through the central aperture of said bar body and the door on which the locking bar is mounted, means coacting with one leg of said U-shaped catch for holding said door in a given position, and auxiliary locking means

coacting with said latch for locking the same against independent movement.

3. A locking structure for a sliding door including a bar formed in two parts slidable with respect to each other, each of said parts having a series of apertures, a bolt extending through aligned apertures in said two parts, said bolt being adapted to extend through said door, and a retaining catch structure arranged at one end of said bar, an eye member interlocking with said catch structure for holding the same in functioning position, a latch structure pivotally connected to the opposite end of said bar, a second eye member interlocking with said latch structure, and a padlock shackle for preventing disengagement of said second eye member from said latch structure.

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