M. MULHOLLAND.

CAR DOOR FASTENER.

APPLICATION FILED SEPT. 21, 1908.

1,003,642. Patented Sept. 19, 1911.

Fig I.

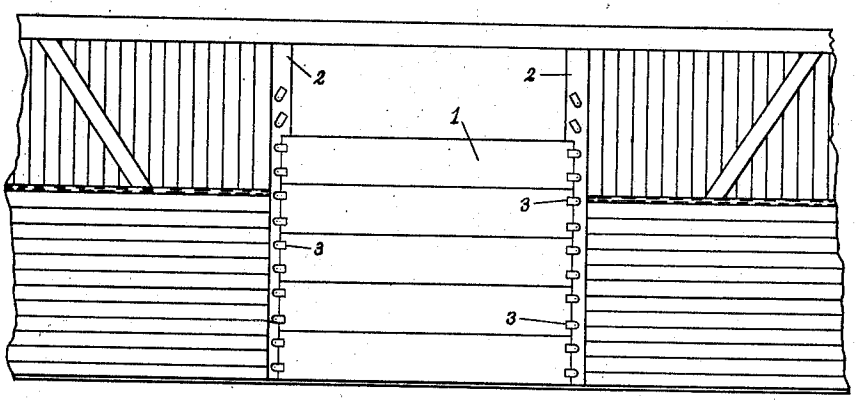


Fig II.

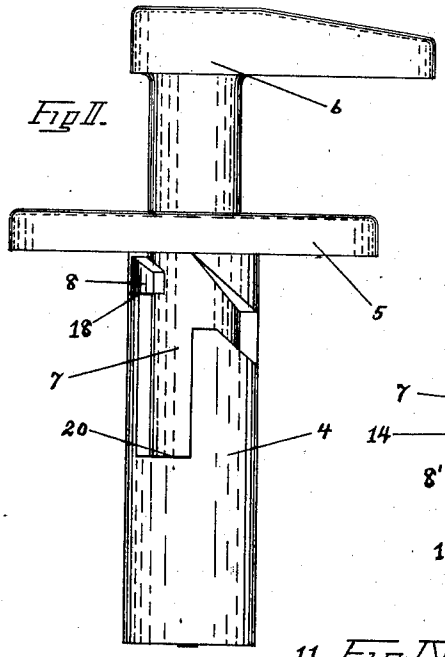


Fig III.

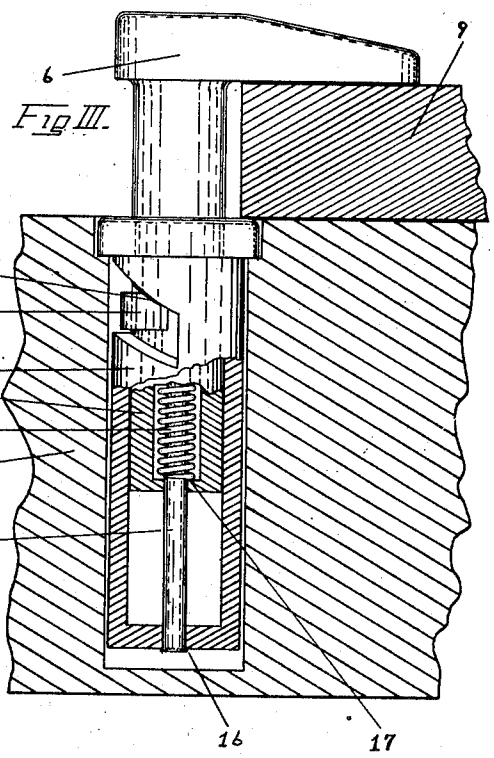


Fig IV.

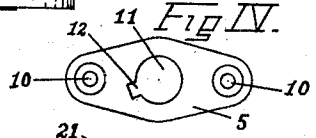
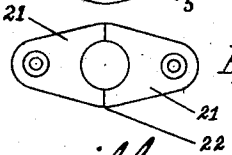


Fig V.



Witnesses:
Leota M. Gemmill.
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Inventor
Mathew Mulholland.
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UNITED STATES PATENT OFFICE.

MATHEW MULHOLLAND, OF CLEVELAND, OHIO.

CAR-DOOR FASTENER.

1,003,642. Specification of Letters Patent. Patented Sept. 19, 1911.

Application filed September 21, 1908. Serial No. 453,956.

To all whom it may concern:

Be it known that I, MATHEW MULHOLLAND, a citizen of the United States, and resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented and constructed a certain Improvement in Car-Door Fasteners, of which the following is a clear and concise description.

My invention relates to a combination of parts for the above avowed purpose—the construction of which and the relation of the several parts to each other is clearly shown in the drawing, which forms a part of this specification and which will be clearly pointed out, described and hereinafter claimed.

In the drawing, Figure I, serves to pictorially describe the interior side of a box car, showing a door way, partially closed or baffled by planks and held in place by a number of my improved door fasteners and showing the preferred application of same. Fig. II is a vertical plan view of one of the fasteners, locked in a position, where it may receive a plank or board, which it is desired to hold. Fig. III is another vertical plan view, showing the fastener in position for utility and furthermore holding the broken end of a plank or board. Fig. IV, shows a view of the top of one of the receiving parts, (hereinafter known as the shell), and disclosing a slot in the orifice, in the center of same. Fig. V discloses a pair of thin metal covers, adapted in shape and size to completely cover Fig. IV, and obviously close the slot.

In a more definite description of this device and reference being had to the drawing again, it will appear obvious how I have anticipated the use of this device in connection with car doors by an examination of Fig. I, wherein I show a series of boards or planks 1, with their ends resting against the jambs of the door way 2, and held in place as shown by a series of my fasteners as at 3, 3, 3. In Fig. II, I show the shell or supporting piece 4, as a solid casting including the escutcheon 5; this shell is cored out so as to receive a clamping member consisting of a stem 7 and an arm 6 provided with a protuberance 8, which is adapted to engage the walls of the spirally-disposed slot in the shell, as provided for that purpose and which will be described hereinafter. In Fig. III, I again show the shell 4, as a part of a complete fastener, embedded in surrounding wood 8′, together with the clamping member, engaged and holding the broken end of a board or plank 9.

Fig. IV, discloses a top view of the escutcheon 5, showing the screw holes at 10, whereby screws may be used to hold the fastener in place, and centrally located, I show an orifice 11, with a slot added thereto, as at 12; this complete opening as described is adapted to allow of the entrance of the clamping member, together with the aforesaid protuberance 8.

Both the stem 7 and the shell 4 are cut away in Fig. III in order to show the interior construction thereby; and in which is included a coiled wire spring, of the compression type, as at 14, shown within the cored hole in the clamping member, and around a small rod or guide 15, which is attached to the shell at 16; the upper part of the said spring and guideway is not shown, but it will be obvious that they are engaged in opposition to each other at the topmost extremity, so that the said spring will exert pressure downward on the clamping member by means of contact therewith at point 17.

It will be noticed by the comparison of Figs. II, and III, with regard to the position of the several parts in relation to each other, that the clamping member is shown in the same position in both of the figures, while the shell is shown differently; it being disclosed as turned 90 degrees on its vertical axis in Fig. III. In Fig. II, the protuberance 8, is shown in contact with the wall of the shell 4, and resting on the flat seat 18, while in Fig. III the said protuberance is shown engaging an inclined portion of the said wall at point 19.

It is intended and is disclosed, that when this device is not in use, the clamping member may be drawn inwardly close to the escutcheon 5, and thereat be entirely out of the way and in a position not liable to be broken or knocked off by heavy bodies in the car, when used for general freight purposes. This position is obtained by turning the clamping member, so that the protuberance 8, will extend in the longitudinal slot shown in Fig. II, and the aforesaid compression spring will draw said member inwardly, with the protuberance 8, resting at the bottom of said slot at point 20. The spring 14 permanently tends to pull the shank 7 inwardly so as to maintain the arm 6 in engagement with the board or plank 9.

A pair of sheet-metal plates 21, 21, in Fig. V, complete this device; they are shown as being divided at point 22, and are intended to cover the escutcheon to prevent the entrance of grain or dirt into the slot 12, although they are not shown in either Figs. II, or III.

The action of this device and the mode of using same is such that when it is positioned as at Fig. II; a board or plank is introduced and the clamping member, is turned into engagement with said board, until the protuberance 8, engages the wall as aforesaid in Fig. III, when a light tap of a hammer or other tool, is all that is necessary to force a compressing condition on said plank, and due to the displacement of the said clamping member, on its axis, and caused by the opposition of the inclined part of the wall of the said shell 4, and the said protuberance 8.

This description is directly applicable to my device in its preferred form and for the purpose specified, but I do not want to be limited thereby, as I anticipate its further use as applied for numerous purposes, as, for instance, a hatch cover fastener, for small craft; fastener for barn doors; fastening for portable house structure, etc.

Having thus clearly shown and described my invention, so that, to those whom are skilled in the art to which it pertains, may make and use same, what I wish to claim and secure by Letters Patent is:—

A device for the purpose set forth, a shell adapted to be secured to a support and provided at its outer end with an escutcheon, said shell formed with a longitudinally-extending slot terminating in a spirally-disposed slot, a clamping member comprising an arm and a stem, one disposed at right angles with respect to the other, a protuberance carried by said stem and normally arranged at the inner end of said longitudinally-extending slot and adapted when said member is pulled outwardly and shifted on its axis to extend in and engage one of the walls of the spiral slot, said stem having a cored portion, a compression spring within the cored portion and tending to pull said stem inwardly, a rod fixed to the inner end of the shell and projecting into said cored portion and having the spring connected thereto, said spring bearing against the inner end of the stem, one of the walls of said spiral slot having a flat surface adapted to be engaged by said protuberance for arresting the inward movement of the stem for maintaining said member in position.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses, this 17th day of September, A. D. 1908.

MATHEW MULHOLLAND.

Witnesses:

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JOHN J. HERIG.