No. 767,558. PATENTED AUG. 16, 1904.

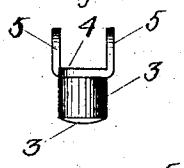
J. H. FRENCH.

TRUNNION FOR SHUTTERS OR THE LIKE.

APPLICATION FILED OCT. 19, 1903.

NO MODEL.

Fig 6.



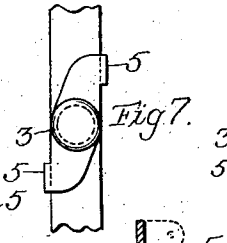


Fig 7.

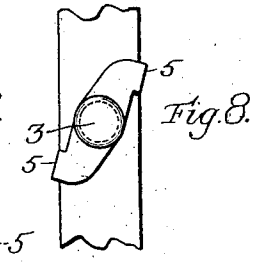


Fig. 8.

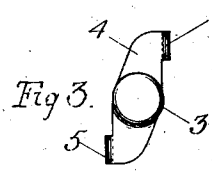


Fig 3.

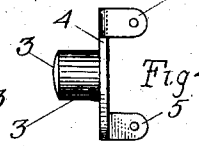


Fig 4.

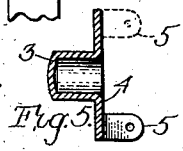


Fig. 5.

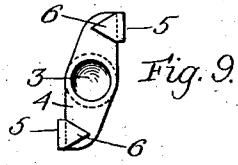


Fig. 9.

Fig 2.

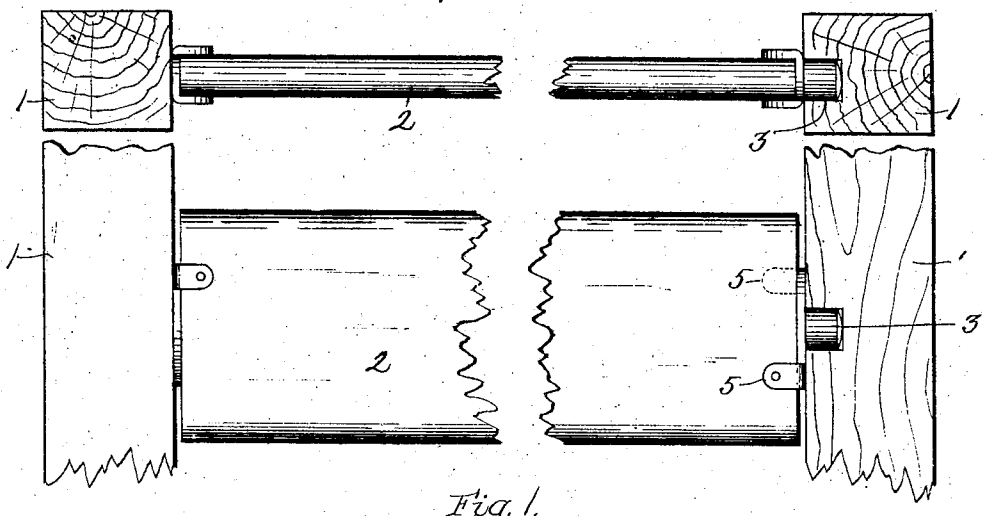


Fig. 1.

WITNESSES:

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ATTORNEY.

No. 767,558. Patented August 16, 1904.

UNITED STATES PATENT OFFICE.

JEROME H. FRENCH, OF BOSTON, MASSACHUSETTS.

TRUNNION FOR SHUTTERS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 767,558, dated August 16, 1904.

Application filed October 19, 1903. Serial No. 177,531. (No model.)

To all whom it may concern:

Be it known that I, JEROME H. FRENCH, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Trunnions for Shutters or the Like, of which the following is a specification.

My invention relates to trunnions for shutters, blinds, and the like, and has for its object to enable shutters and the like to be made stronger than has heretofore been the case and also to make it possible to repair such articles with ease, and so that the repair will be not only practically invisible, but even stronger than the original construction.

Wooden shutters and the like, as is well known, are commonly made with movable slats, each slat being made with a pair of trunnions, one at each end, journaled in sockets on the side bars of the frame. These trunnions have heretofore been of wood and integral with the slats and were provided by turning or otherwise forming them on the ends of the slats. Necessarily the trunnions were made quite small and being of wood the action of the weather, together with wear, soon weakened them so that they would in a comparatively short while after the shutter was installed break off, thus letting one end of the slat hang below the other. In order to repair the break, it has always heretofore been necessary to remove at least one of the side bars, take out the broken slat, and replace it by a new one, after which the frame was put together again. Furthermore, for appearance sake it was necessary to repaint the whole of the shutter; otherwise the fresh paint on the new slat would contrast too strongly with the old paint on the other parts of the shutter. This necessity for repainting the whole structure and the necessity for taking the shutter apart in order to repair it have both always been highly objectionable, and my invention has in view mainly to obviate these objections.

My invention consists, essentially, of a trunnion made with a base to fit against the end of a shutter-slat or the like, and this base is provided with means for centering the trunnion on slats or the like of different thicknesses. Herein I have shown the base as made with two opposed ears, one on one side and the other on the opposite side thereof, which are adapted to embrace the end of the shutter and to be fastened thereto. In the best form of my invention, however, the two ears are diagonally opposed—that is, they are offset relatively, so that they do not face each other, the purpose of this offset arrangement being hereinafter fully set forth.

Other features of my invention are hereinafter pointed out.

In the accompanying drawings, Figure 1 is an elevation of part of a shutter embodying one form of my invention. Fig. 2 is a plan view of Fig. 1, partly in section. Figs. 3, 4, 5, and 6 are views of my new trunnion by itself. Figs. 7 and 8 explain the use of my new trunnion. Fig. 9 shows a modified form of my invention.

Ordinary wooden shutters are usually made with two side bars 1 1, connected at their ends by two cross-bars. (Not shown.) Within this framework are fastened the slats, one of which is shown at 2. As herein shown, each end of each slat has fastened to it a trunnion 3, preferably struck up from sheet metal, and these trunnions are journaled in sockets provided, as usual, in the side bars 1 1. As shown, each trunnion 3 is made with a base 4 to fit against the end of the slat, and this base 4 is made with two ears 5 5, one on one side of the base and the other on the opposite side thereof; but the two ears are diagonally opposed or offset relatively, so that they do not face each other.

The purpose of having the two ears offset relatively is to give to the trunnion a capacity to fit slats of different thicknesses and also to enable it to center itself on the slat, whatever the thickness of the latter may be—that is, a trunnion of a given size is applicable to slats of different thicknesses and cannot be applied to a slat of any thickness within the limit of its capacity otherwise than with its axis midway of the thickness of the slat. This will be clear from Figs. 7 and 8. Of course when used with a slat as shown in Fig. 8 it is necessary for best results either to bend the

ears down onto the side surface of the slat or to drive them in flush with that surface, and this can be effected when the nail by which the ear is fastened to the slat is driven. This self-adjusting capacity of my new trunnion is a feature which I believe to be distinctive and controlling, because not only can the trunnion be embodied in a shutter having slats of any ordinary thickness when the shutter is first made, thereby making it possible to produce a stronger and longer-lived shutter than has been possible with the old integral wooden trunnion, but as an article of manufacture this distinctive feature is the basis of its main value, which is that by the use of my new trunnion a broken slat of an all-wood shutter, such as are now in almost universal use, can be repaired with extreme ease and without taking the shutter apart, as has heretofore been necessary, or without requiring repainting.

In Fig. 9 I have shown a modified form of trunnion, which differs from that shown in Figs. 1 to 8, inclusive, in that the ears are not perforated, but are each made with an integral spike 6, made by turning inwardly a pointed extension provided on each of said ears.

What I claim is—

1. As a new article of manufacture, a trunnion having a base-plate extending laterally from opposite sides of the trunnion and made near its outer ends with opposed and relatively offset ears to receive between them the end of a slat, the trunnion being angularly adjustable on its axis to fit the ears to slats of different thicknesses.

2. A trunnion having a base-plate extending laterally from opposite sides of the trunnion and made near its outer ends with opposed ears relatively offset to receive between them the end of a slat, the trunnion being angularly adjustable on its axis to fit the ears to the thickness of the slat and to position the trunnion centrally with relation to the slat.

3. As a new article of manufacture a trunnion made with a laterally-extending base-plate to engage the end of a shutter-slat or the like, and a pair of diagonally-arranged and relatively opposed ears projecting from the base-plate to engage the opposite sides of the slat.

4. As a new article of manufacture a trunnion made with a base 4 to engage the end of a shutter-slat or the like, and a pair of diagonally-opposed ears 5, 5, projecting from the base to engage the opposite sides of the slat substantially as described.

Signed by me at Boston, Massachusetts, this 1st day of October, 1903.

JEROME H. FRENCH.

Witnesses:
ARTHUR F. RANDALL,
JOSEPH T. BRENNAN.