

W. J. FOREST & C. M. JACOBS.
 SCREEN DOOR BRACE.
 APPLICATION FILED JULY 16, 1909.

980,507.

Patented Jan. 3, 1911.

Fig. 1.

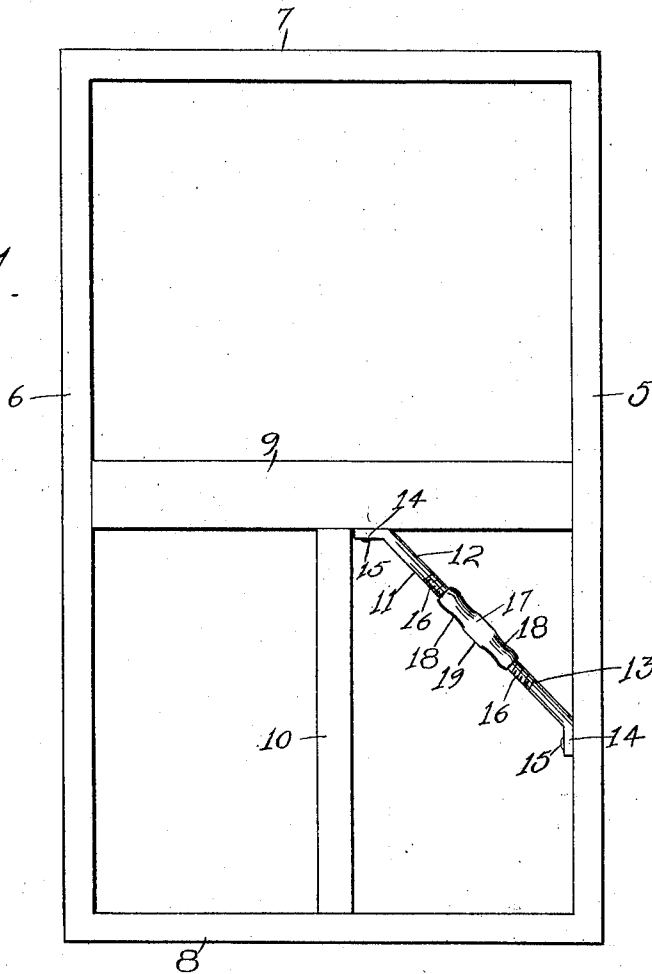
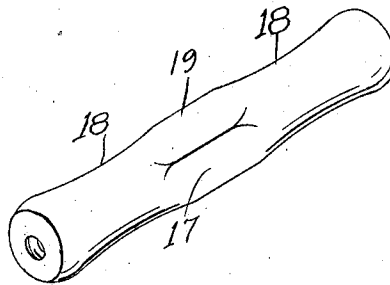


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM J. FOREST AND CHARLES M. JACOBS, OF WABASH, INDIANA.

SCREEN-DOOR BRACE.

980,507.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, WILLIAM J. FOREST and CHARLES M. JACOBS, citizens of the United States, residing at Wabash, in the county of Wabash, State of Indiana, have invented certain new and useful Improvements in Screen-Door Braces; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in struts or braces and more particularly to the type employed with the frames of screen doors.

It has for its object the provision of a device of that kind adapted to take up the sagging in the frame of a screen door.

Another object is the provision of a turn-buckle which may be turned by hand without danger of the operator scrapping his hand against the surface of the screen.

With these and other objects in view as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claim; it being understood that various changes in the form, proportion, size and minor details of the device may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming part of the specification:—Figure 1 is a front view of a spring door frame showing our improved device applied thereto. Fig. 2 is a detailed perspective of the turn-buckle.

Similar numerals of reference are employed to designate corresponding parts throughout.

The sides of the door frame are designated by the numerals 5 and 6 and the ends by the numerals 7 and 8, the said sides and ends being braced in the usual manner by the horizontally disposed brace bar 9 and the vertical brace bar 10.

The brace forming the subject of the present invention is designated in general by the numeral 11 and is composed of two rods designated by the numerals 12 and 13. These rods are arranged diagonally of the frame and have their outer ends secured to

one of the sides thereof and the horizontal brace bar 9. The outer ends of the rods are bent at an angle as shown at 14 and are provided with openings for the reception of screws 15, by means of which the said ends are secured to the lower face of the horizontal brace bar 9 and inner face of the side 5. The inner ends of the rods are screw threaded as shown at 16, the thread of one rod extending in an opposite direction to the thread of the other rod.

The turn-buckle 17 is preferably formed of a single piece of brass or other non-rusting metal and is cylindrical in contour. The bore of the turn-buckle is provided with right and left screw threads for the reception of the threaded ends 16 of the bars 12 and 13. We are aware that it is old to employ a turn-buckle to connect the threaded ends of two rods, such as shown in Fig. 1, but so far as known the turn-buckles heretofore used were of the skeleton or frame type which exposed the threaded ends of the bars extending into the turn-buckles to the elements, and in danger to rust. By constructing the turn buckle such as is shown in Figs. 1 and 2, it will be seen that the threaded ends of the rods disposed within the turn-buckle will at all times be protected from exposure and any tendency to rust. The outer surface of the turn-buckle is concaved from its middle portion to the opposite ends as shown at 18, and the middle portion is non-cylindrical in contour as shown at 19 and provides four flat faces which cooperate with the concaved portion to provide a hand-hold for the operator, and also a bearing surface for a wrench or other tightening tool when it is desired to use the latter.

As before stated, the types of turn-buckles used with devices of this kind are usually of the skeleton or frame type and are consequently much wider than the device herein shown and when necessary to turn the turn-buckles by hand the small space existing between one side of the turn-buckle and the screen make it almost impossible for the operator to make a complete turn of the buckle without scraping his hands against the wire screens and then again the widths of these buckles often cause a bulging in the screen when turned so as to bring one of their sides at right-angles to the screen. With our construction it can be readily seen that these defects are removed since it is obvious that the turn-buckle 17 may be

readily turned without in any way bringing the hand of the operator into contact with the screen.

Those portions of the turnbuckle lying
5 between the concaved portions and the terminal faces of the turnbuckle are substantially flush with the corners of the squared portion lying between the concaved portions, and provide comfortable bearing surfaces for the operator's hand to bear against
10 when manipulating the turnbuckle.

What is claimed as new, is:—

A turnbuckle comprising a pair of alined
15 rods having their opposed ends screw threaded, and a tubular turnbuckle having a threaded bore to receive the threaded ends

of the rods and having its outer surface concaved from its middle portion to within a short distance of each end, that portion lying between the concaved portions being squared to provide wrench faces, and those portions lying beyond the concaved portions being flush with the corners of the squared portion to provide comfortable bearing surfaces for the hand. 20

In testimony whereof, we affix our signatures, in presence of two witnesses. 25

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Witnesses:

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