

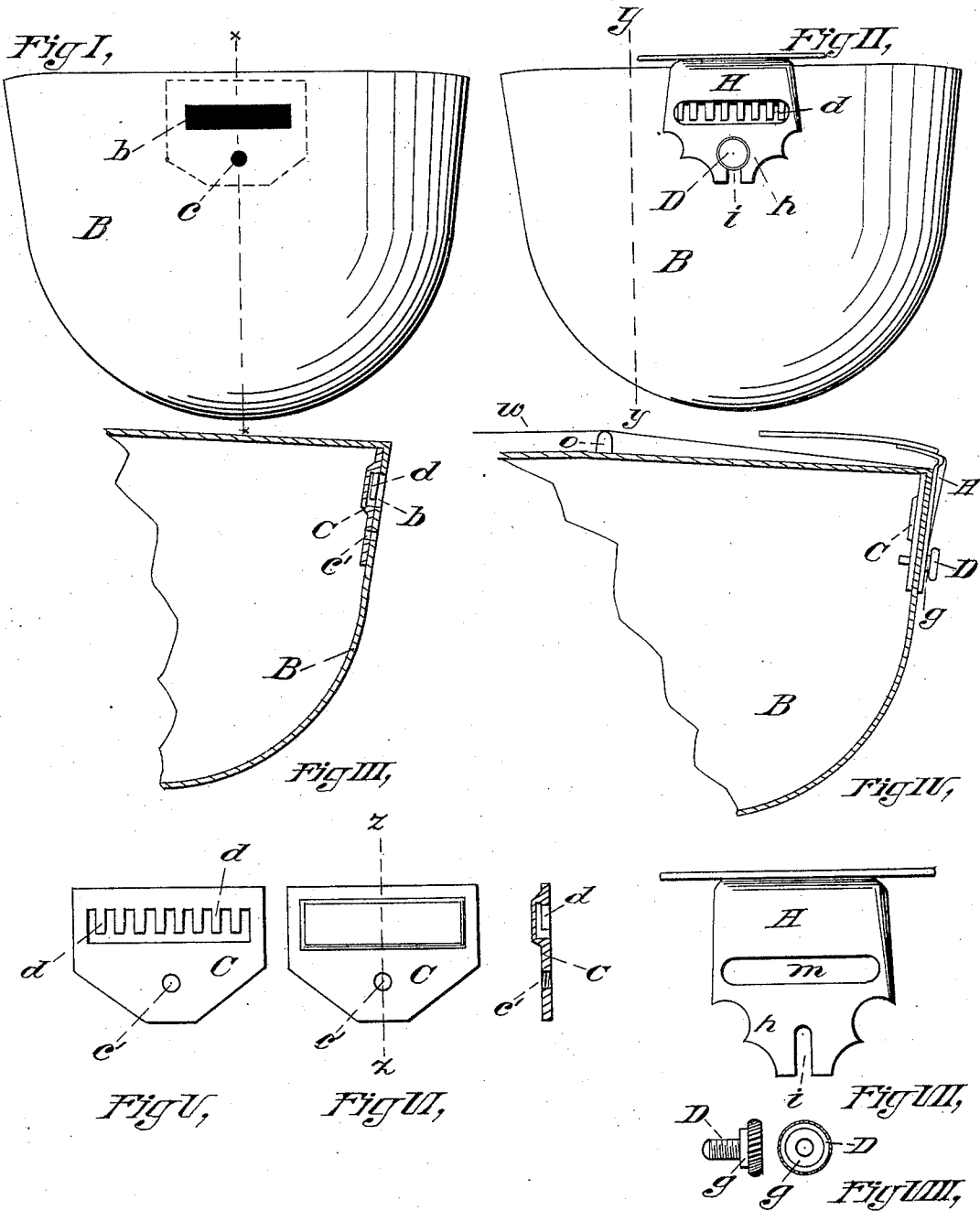
(No Model.)

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TAILPIECE AND GUARD FOR STRINGED MUSICAL INSTRUMENTS.

No. 575,425.

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UNITED STATES PATENT OFFICE.

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TAILPIECE AND GUARD FOR STRINGED MUSICAL INSTRUMENTS.

SPECIFICATION Forming part of Letters Patent No. 575,425, dated January 19, 1897.

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To all whom it may concern:

Be it known that I, CHARLES W. HUTCHINS, a citizen of the United States, residing at Springfield, Hampden county, and State of Massachusetts, have invented a new and useful Improved Tailpiece and Guard for Stringed Musical Instruments, of which the following is a specification.

My improvements relate in the first part to a tailpiece in which the string or wire holding pins are recessed within the outer surface of the bowl or body of the instrument, while the pin-plate at the same time serves as a nut for the clamp-screw securing the guard to the outside of the instrument, and in the second part to a guard combined with the tailpiece to expose the pins thereof, the objects of the improvements being to reduce the relief of the tailpiece and guard from the body of the instrument and provide a guard easily and firmly secured and through which the loops of the strings may be inspected without the necessity of removing the guard for that purpose; and the invention consists in the construction and combination, as hereinafter described, and more fully pointed out in the claims.

My invention is fully illustrated in the accompanying drawings, in which—

Figure I is an end view of a mandolin with the tailpiece and guard removed. Fig. II is an end view of a mandolin with the tailpiece and guard in place and secured thereto. Fig. III is a longitudinal section through a part of a mandolin-bowl and through the center of the tailpiece combined therewith. Fig. IV is the same on the dotted line *yy* of Fig. II, showing both the tailpiece and guard in side elevation combined with the mandolin-bowl. Figs. V and VI are full-sized views of the pin-plate. Fig. VII is a full-sized end elevation of the guard, and Fig. VIII is a full-sized view of the guard-securing clamp-screw.

As shown in Fig. I, an oblong opening *b* is cut entirely through the wall of the bowl *B* of the instrument at the point generally occupied by the pins, and below said opening *b*, and in a line with the center thereof, is a hole *c*, also piercing the wall.

In Figs. V and VI the pins *d* are shown struck up or otherwise formed in the face of a plate *C* and flush with the face of said plate,

which face is slightly curved to conform to the inner surface of the instrument-wall. The plate *C* is depressed behind the pins *d* to leave a clear space around them for the reception of the loop ends of the strings while closing up the space behind them, so that when the plate *C* is in position, as shown in dotted lines in Fig. I and in Figs. III and IV, the opening *b* will be closed in an air-tight way while the pins *d* are opposite the opening *b*.

The plate *C* is made large enough to extend beyond the edges of opening *b*, while its upper edge is adapted, when the plate is in position, to bear, as shown in Figs. III and IV and indicated in Fig. I, upon the under surface of the top of the instrument. The plate *C* is also large enough to extend over the hole *c* and is provided with a screw-hole *c'* to coincide with hole *c* when the plate is in position. The recess behind a pin *d* is shown in the section of Fig. VI on the dotted line *zz*.

It will be seen that when the plate *C* is behind opening *b*, in the position that would be indicated by the dotted lines around said opening in Fig. I, and the loops of the strings introduced through opening *b* are hooked over the pins *d*, as shown in Fig. II, the tension of the strings will hold plate *C* firmly in place with its upper edge bearing against the lower surface of the top and its face held close to the conforming inner wall of the instrument, so that no additional fastening, when the strings are stretched, is needed to hold the pin-plate in place; but to prevent the plate *C* from becoming displaced in event of all of the strings being loosened simultaneously, as well as to supply a means of clamping the guard when the wall of the instrument is very thin, as in case of a metal bowl or body, I thread or tap the hole *c'* to form a nut of it to be engaged by the threaded end of a screw *D* from the outside of the instrument, by means of which screw the strings are assisted in making an air-tight joint between the plate *C* and instrument-wall, and by means of which nut a durable way of clamping the guard is provided with the thinnest-walled instrument. Although shown in a mandolin, the pin-plate so constructed and combined is equally applicable to the guitar or banjo.

The shank *H* of the guard, or that portion of it that comes over the bowl or body of the

instrument to shield the pins, comprises a flat sheet lower end *h* for bearing directly upon the outer wall and provided with an open-end slot *i* for passing over the shank of screw D, while the end of the slot rests upon the screw and supplies a stop for determining the vertical adjustment of the guard. The end *h* being slid over screw D, to rest thereupon, brings an oblong opening *m* in the guard over the opening *b*, as seen in Fig. II, so that the pins *d*, while shielded by the guard, are exposed to view and the condition of the loops of the strings can always be inspected and the slipping of the strands of the loops and the indications of the near breaking of any of the strings may be noted, and without the need of removing the guard. As the strings *v* pass from the edge of the opening *b* in immediate contact with the outside of the bowl of the instrument, or very close thereto, before changing their direction to the bridge *o*, a very slight concavity in the shank II of the guard is sufficient to give them room, and the shank II is shown in Figs. II and VII slightly hollowed out above opening *m* therein to admit the passage of the strings. When shank II is slid over the stem of screw D to rest thereupon, the screw is run up to have its shoulder *g* bear upon the guard to draw both plate C and shank II close to the wall of the instrument to prevent any part of the tailpiece and guard from being loose enough to rattle and to cause the shank of the guard to be only its thickness projected from the outside surface of the bowl. The main object of this construction is to reduce the guard and tailpiece to the minimum relief from the bowl or body, so that there is little or nothing to catch in the clothing or other things in handling the instrument.

Now, having described my invention, what I claim is—

1. The combination in a string musical instrument of the character described, provided with an opening or depression in its wall at the rear where the pins are usually located—of an independent plate provided with string-holding pins and a surrounding flange, substantially as shown, secured to the inner surface of the wall by its flange to recess the pins within said opening and leave

them accessible from the outside of the instrument—whereby the outer surfaces of the pins are prevented from projecting beyond the outer surface of the instrument-wall, as and for the purpose set forth.

2. A tailpiece comprising a plate provided with a central recess in its face, and a series of string-holding pins located over said recess; faced to bear upon the inner wall of the shell and with an upper edge combined with the top or similar stop to prevent rotation—in combination with a shell provided with an opening therethrough closed by the plate to leave the pins accessible from the outside of the instrument through said opening.

3. A plate provided with a series of string-holding pins in its face, and with a recess in rear of the pins, a shell with an opening adapted to be closed from the inside by the plate and expose the pins through said opening—and a clamp-screw from the outside of the instrument combined with the shell, and with the pin-plate as a nut.

4. A musical instrument of the character described and provided with an end opening through its shell for seating the pins, a pin-plate for closing said opening from the rear and seating the pins therein, means for preventing the plate from rotating within the shell, a screw-hole in said plate forming of it in effect a nut, a clamp-screw having its stem from the outside of the bowl engage the nut—and a guard provided with an opening in its shank-plate adapting it to pass over the stem of the clamp-screw and rest thereon to be clamped directly against the bowl, substantially as shown and described.

5. An instrument provided with an opening or depression in the rear of its shell, and a plate comprising a bearing-flange, a rack of cord-holding pins framed within the same, and a recess in rear of the pins; the flange of the plate bearing upon the shell on the perimeter of the opening therein, and the pins coming opposite said opening, as and for the purpose set forth.

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Witnesses:

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