

No. 671,997.

Patented Apr. 16, 1901.

G. A. FULLERTON.
STRING INSTRUMENT.

(Application filed July 17, 1899.)

(No Model.)

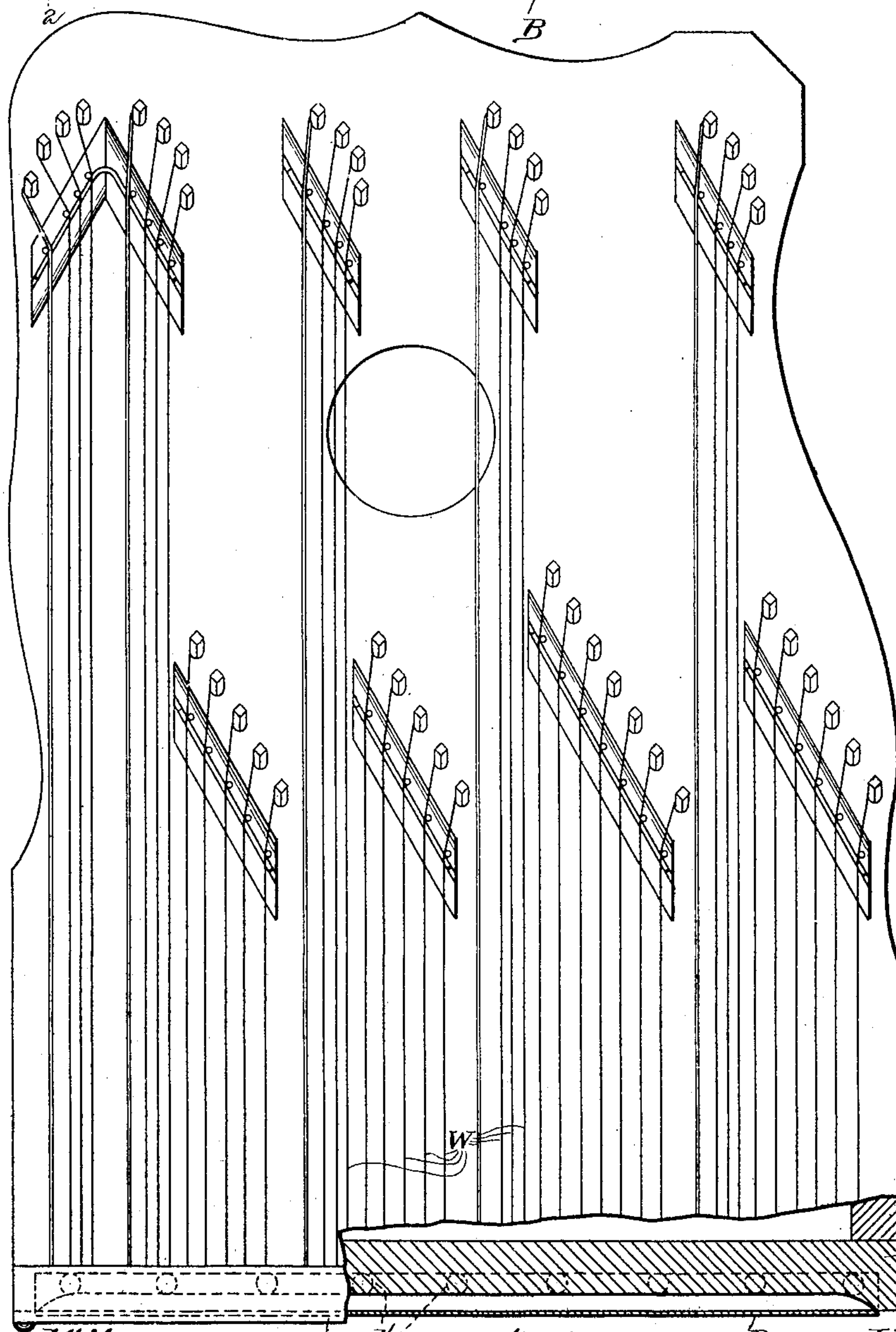
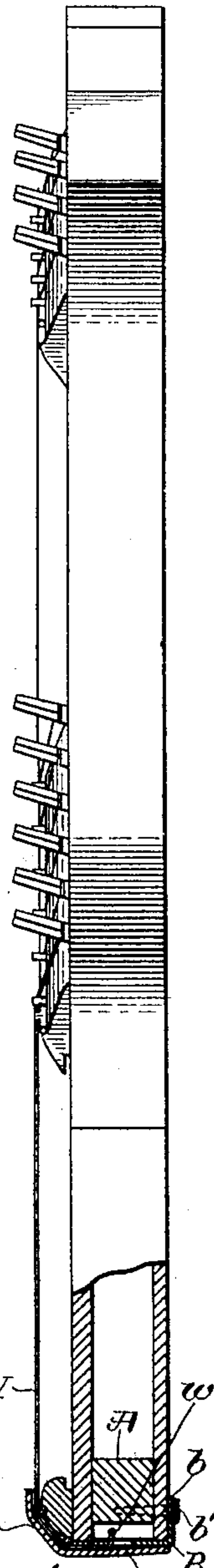


Fig. 2.



Witnesses:
Arthur F. Randall,
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Fig. 3.

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UNITED STATES PATENT OFFICE.

GEORGE A. FULLERTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PHONOHARP COMPANY, OF PORTLAND, MAINE.

STRING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 671,997, dated April 16, 1901.

Application filed July 17, 1899. Serial No. 724,050. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ARTHUR FULLERTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented an
5 Improved String Instrument, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is an end view of one of my improved instruments with a portion of the
10 shield broken away. Fig. 2 is a partial plan of one of my improved instruments broken away in parts to better illustrate my invention.

Machines of this class—that is, made up of
15 a frame carrying a sounding-board, with a bridge at the lower end of the board and strings extending over the bridge and bent over the lower end of the board—have generally had the hitch-pins driven in holes drilled
20 in the cross-piece at the lower end of the frame and each string has been looped on its hitch-pin. This construction has been found objectionable in many respects, such as the need of a jig for drilling the holes, the tedious labor of inserting each pin in its holder
25 and driving them uniformly, the fact that the hitch-pins will not yield uniformly under the strain of the strings, the tendency of the loop in the end of a string to fly over the end of
30 the hitch-pin while stringing the instrument, the tendency of the hitch-pin block to split and the like, due to the great number of hitch-pins, and the fact that each must be properly inserted in a block of wood.

The object of my invention is to do away
35 with these objections, and my invention is a string instrument made up of a frame, a sounding-board on the frame, and a bridge at the lower end of the board, with the lower
40 cross-piece of the frame grooved or cut away and reinforced by a plate of metal covering the recess in the cross-piece formed by grooving it and provided with holes so shaped as to receive and retain the looped or otherwise
45 enlarged ends of the strings.

In the drawings, A is the lower cross-piece of the frame, made as usual, except that it is

grooved or recessed at that surface in which the hitch-pins have heretofore been driven. That recess or groove is covered by a metal
50 plate B, which is securely fastened over that recess, preferably by a flange *b* and nails or screws *b'*, as clearly shown in the drawings. The perforations *b*² in plate B are arranged to suit the arrangement of the strings W,
55 and each is large enough at one end to admit the enlarged end *w* of its string, so that by simply inserting that enlarged or looped end and giving a slight pull upon the string the stringer can almost instantly secure that end
60 of the string to the recessed cross-piece and its covering plate, which together constitute the hitch-pin block. The perforations *b*² may be made at a single operation of a punch and be thus each arranged exactly right relatively
65 to all the others, and the exact and accurate adjustment of plate B with relation to cross-piece A is readily attained, as will be obvious.

My compound hitch-pin block, consisting of the recessed piece A and the perforated plate
70 B, is wholly free from the objections above alluded to and adds to the strength and durability of the instrument and also causes it to remain in tune much longer.

D is a shield much used in certain forms of
75 instruments of this class; but it is mainly a matter of finish for such instruments as are now commonly called “harps” or “citherns” and forms no part of my invention.

What I claim as my invention is—
80

The improved string instrument above described composed of a frame; a sounding-board on that frame; a lower cross-piece with a recess in that wall of the cross-piece which is at a right angle with the sounding-board;
85 a perforated plate covering that recess and at a right angle with the sounding-board; and strings each secured at one end to the perforated plate.

GEORGE A. FULLERTON.

Witnesses:

WM. MAYNADIN,
ARTHUR F. RANDALL.