2 Sheets—Sheet 1.

T. HOWELLS.
Violin.

No. 223,916. Patented Jan. 27, 1880.

Fig. 1.

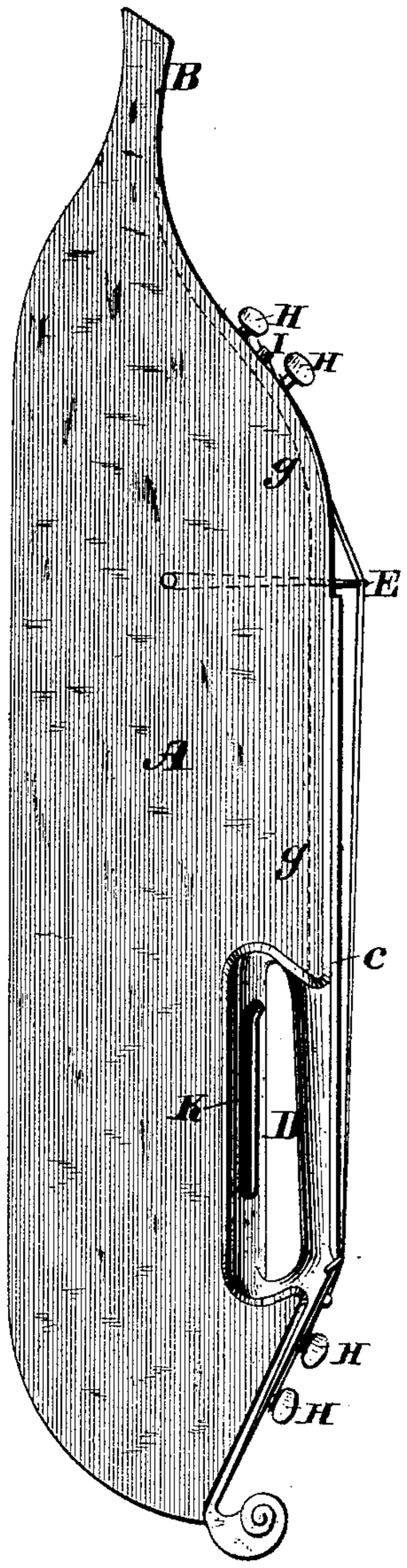
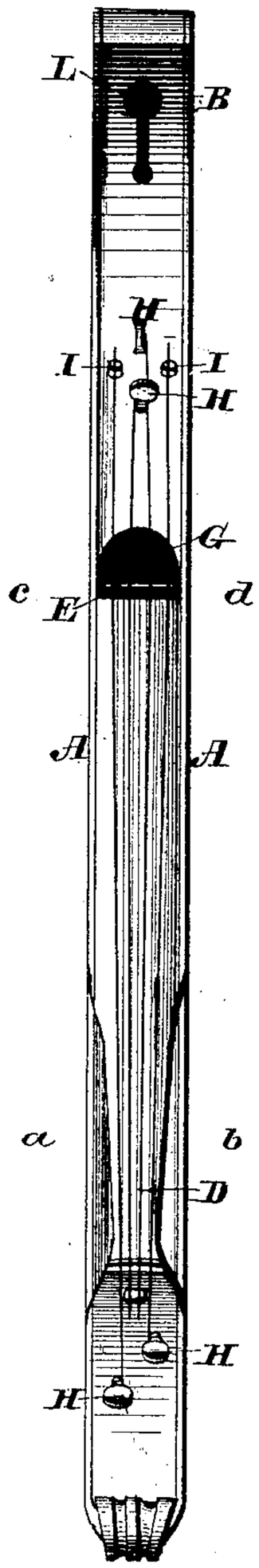


Fig. 2.



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2 Sheets—Sheet 2.

T. HOWELLS.

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Fig. 3.

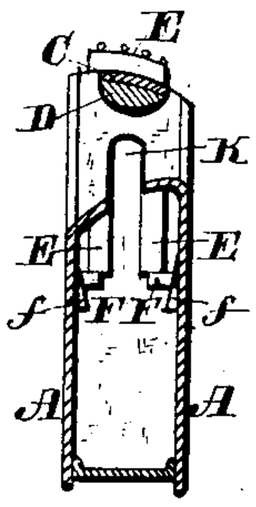


Fig. 4.

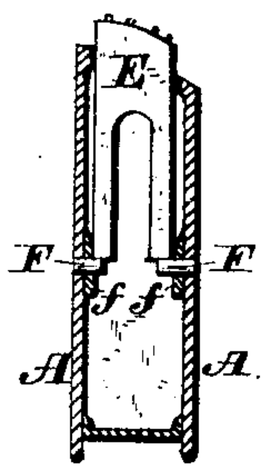
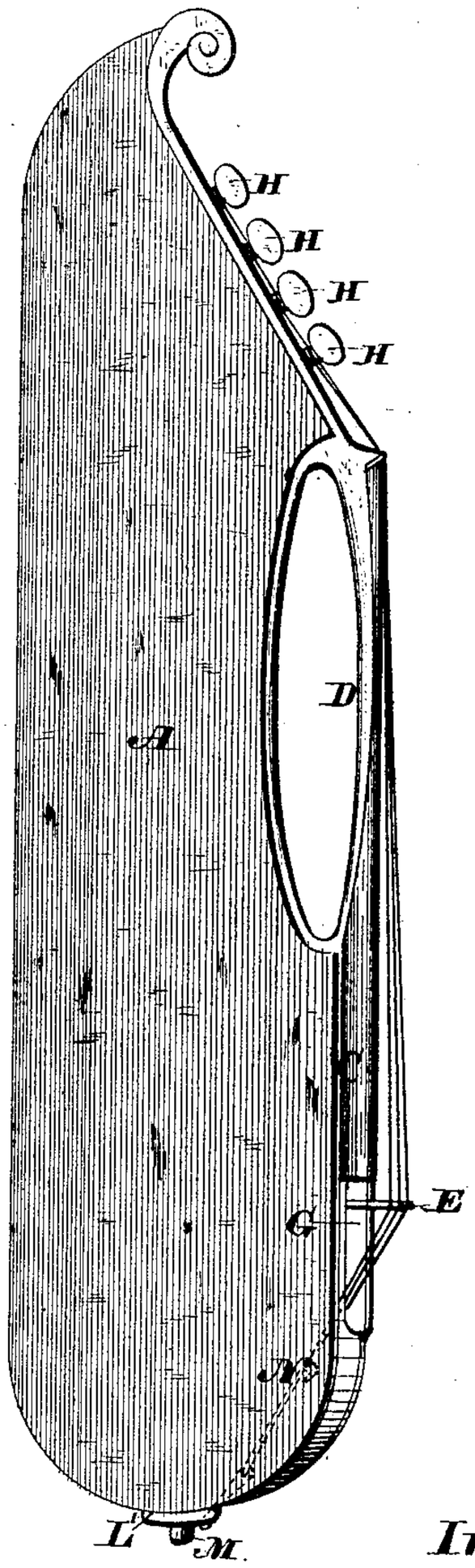


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS HOWELLS, OF 848 OLD KENT ROAD, PARISH OF SAINT GILES, CAMBERWELL, COUNTY OF SURREY, GREAT BRITAIN.

VIOLIN.

SPECIFICATION forming part of Letters Patent No. 223,916, dated January 27, 1880.

Application filed October 6, 1879. Patented in England, July 25, 1879.

To all whom it may concern:

Be it known that I, THOMAS HOWELLS, late of the city of Auckland, in the colony of New Zealand, but now of 848 Old Kent Road, in the parish of Saint Giles, Camberwell, in the county of Surrey, in the Kingdom of Great Britain, gentleman, have invented certain new and useful Improvements in Musical Instruments of the Violin Class, (bow instruments,) of which the following is a specification.

The principal feature of novelty in this invention consists in the strings being placed on the side or edge of the body of the instrument, as hereinafter more particularly described, instead of on one of its principal surfaces, (the belly,) as they have been hitherto placed, and in the modification of the shape and arrangement of the instrument thereby rendered practicable, by which a longer sound-board is obtained, as well as greater facility in manipulating, and greater compactness and portability both of the instrument itself and of the case to contain it.

I construct the body of a curvilinear figure of somewhat oblong form and terminated at each end with suitable curves, one end of the instruments corresponding in size and tone to the violin or similar small instruments being so fashioned as to fit conveniently under the player's chin, while larger instruments, such as that corresponding to the bass-viol, are shaped differently.

Part of the side along which the strings are placed is rounded and otherwise shaped as a finger-board, or supports a finger-board, the neck of the instrument being formed by an opening under part of the finger-board and between it and the body, or through the body, just under the finger-board, of sufficient width and length to allow the player's thumb to pass through and be shifted with the hand freely up and down the finger-board, so as to have full command of the strings.

The bridge I prefer to support on two projections within the body of the instrument, one from each sound-board, opposite each other, under the upper or wide end of the finger-board, and over these projections I make an opening, through which the bridge projects to support the springs.

The manner of supporting the bridge admits of considerable variation, depending on a variety of circumstances.

I prefer to place the tuning-pins two beyond each end of the finger-board—that is to say, two between the bridge and where the chin is placed, and two between the other end of the finger-board and the scroll forming that end of the instrument. I also provide fixed blocks or pegs or other arrangement for securing the knotted ends of the strings, and I make suitable openings in the body of the instrument as sound-holes.

In order that my said invention may be fully understood, I shall now proceed more particularly to describe the same, and for that purpose shall refer to the several figures on the annexed sheet of drawings, the same letters of reference indicating corresponding parts in all the figures.

Figure 1 represents a side elevation of one of my improved instruments corresponding to a violin. Fig. 2 is a top view of the same. Fig. 3 is a section through the line *a b*, Fig. 2. Fig. 4 is a section through the line *c d*, Fig. 2, and Fig. 5 represents one of the larger instruments drawn to a smaller scale.

A A are the sound-boards forming part of the body of the instrument. B is the part shaped to fit under the player's chin. C is the finger-board; D, the neck of the instrument; E, the bridge projecting through the opening G and resting on the two projections F F, which are fixed into the sound-boards, the latter being strengthened at that part by thin slips of wood glued to them and shown at *f f*. H H are the tuning-pins, and I I are fixed pegs or blocks, through kerfs in which the strings are passed and in which they are held by a knot at the end of each of them.

Besides the opening G, I make such other sound-holes as I may think either useful or ornamental, and I find those shown in the drawings—namely, one under the neck of the instrument at K and one at L—answer all the purposes.

The side of the instrument on which the finger-board is fixed I make slightly oblique to the other parts, as also, but in the opposite direction, the surface under the neck about the

opening K, as shown in the sections, Figs. 3 and 4, and by the dotted line *g*, Fig. 1, which indicates position of the opposite edge of the instrument.

For large instruments, such as would correspond to the violoncello and bass-viol, and which are played with the finger-board end upward, the curved part for the chin is not required, and I make these, as shown in Fig. 5, with this end simply rounded off and fitted with a foot-block, L′, into which either a foot, M, or leg may be screwed, and I prefer to fasten the strings by their knotted ends to a tail-board, N, placed within the instrument and secured by a piece of gut to a button on the foot-block L. The strings in this arrangement, after passing over the bridge, pass into the body of the instrument through the opening G, which I make for this purpose longer than the smaller instruments, and which arrangement is shown by dotted lines in Fig. 5.

In the construction of the larger instruments I place the finger-board either in the center, as shown in the drawings, or toward one side of the body of the instrument, as may be preferred.

It will be observed that the advantage of my invention is at least as great for these larger instruments as for the smaller ones, because in playing a bass-viol the player's legs have to be inconveniently extended, whereas these instruments being held edgewise toward the player are free from this inconvenience; and the advantage of greater compactness and portability is important in large instruments.

The sound-boards may either be made flat, as are those shown in the drawings, or they may be shaped as those of the ordinary violin, either by being cut of solid wood for the best work, or by steaming and molding under pressure thin boards for the cheaper ones.

For playing on these instruments I use the ordinary bows.

What I claim as my invention is—

A musical instrument of the violin class having the strings and finger-board arranged on one edge of the body, substantially as shown and described.

THOS. HOWELLS.

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