

(No Model.)

G. A. FULLERTON.
MUSICAL INSTRUMENT.

No. 557,661.

Patented Apr. 7, 1896.

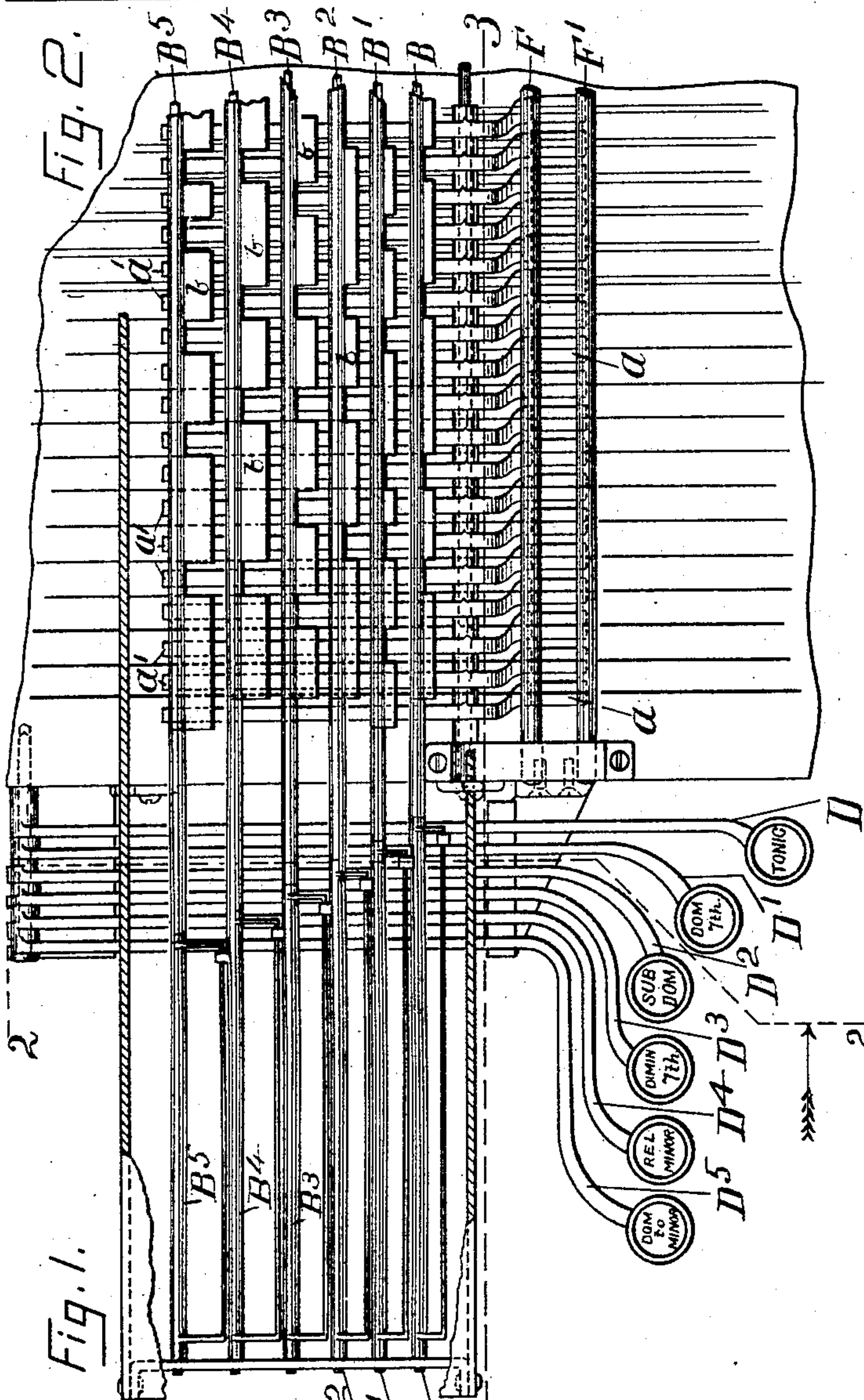
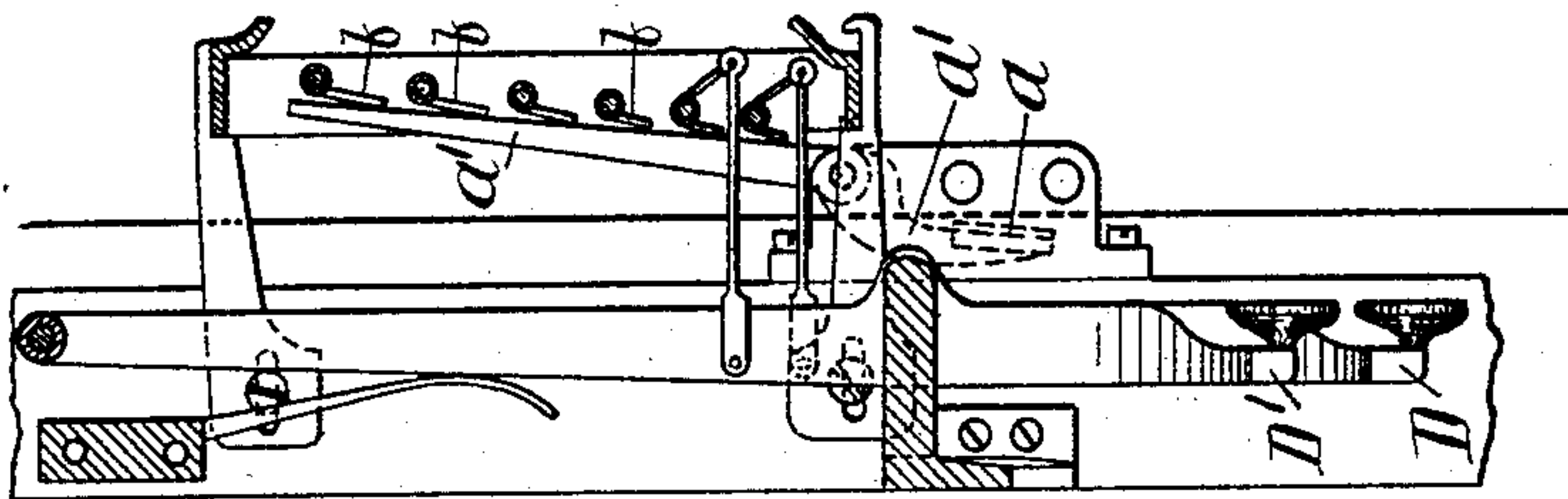


Fig. 1.

Fig. 2.

WITNESSES:

H. P. Guller
John R. Snow.

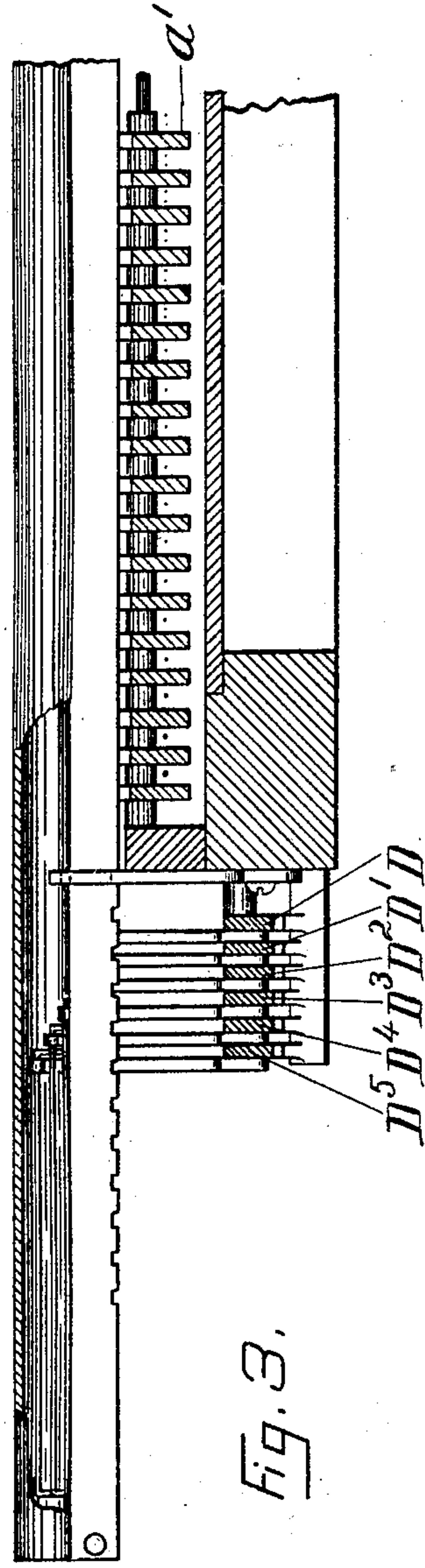


Fig. 3.

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GEORGE ARTHUR FULLERTON, OF CAMBRIDGE, MASSACHUSETTS, ASSIGNOR
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MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 557,661, dated April 7, 1896.

Application filed February 27, 1895. Serial No. 539,949. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ARTHUR FULLERTON, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful Musical Instrument, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a partial plan with portions broken away illustrating my instrument. Fig. 2 is a section on line 2 2 of Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 1.

My invention consists in a plurality of dampers arranged in a single row under the strings and forming a pick-line, with means to operate the dampers forming that single row in sets for the chord desired, thus sounding different chords by drawing the pick along a single line, the pick-line being always at or near the middle line of the single row of dampers. For example, if there be thirty-five strings tuned in chromatic scale then there will be thirty-five dampers in a single row, each under its string, and a pick drawn across the strings at or near the middle line of the single row of dampers will if one set of dampers be operated sound the nine strings not damped for the tonic chord; but if drawn along the same pick-line when another set of dampers is operated it will sound the eleven strings not damped for the dominant seventh, and so on for all the chords in any key, the set of dampers in the single row for damping the strings not required for any chord being operated before the pick is drawn along the single line of pick, but all the chords in any key being sounded by drawing the pick along the same pick-line. This is the main feature of my invention, for although I am not the first to use dampers under the strings, (that being shown in Hammerl's patent, No. 510,857, dated December 12, 1893,) yet I am the first to provide a single pick-line over a single row of dampers which are operated in sets, so that when one set is operated a pick drawn over the middle line of the single row of dampers will sound one chord, and when another set is operated a pick drawn over the same line will sound another chord.

In the drawings I have shown a portion of a harp including one full octave and part of

another. I have also shown each damper *a* mounted on its carrier *a'* and these carriers shown as levers *a'* controlled by six rocker-shafts *B B' B² B³ B⁴ B⁵*, each rocker-shaft having its working arms *b* arranged to take the proper levers *a'*. These rocker-shafts are controlled by the finger-levers *D D' D² D³ D⁴ D⁵*—that is, all the strings will be damped if the lever *D* be depressed except those required for the tonic chord, and all except those required for the dominant seventh when lever *D'* is depressed, and so on as to the other finger-levers, as will be clear from Fig. 1.

The rods *F* and *F'* serve as guides for the pick used in playing, and while the instrument can be played by a skilled person just as well without those rods as with them they are important for learners, the advantages of this feature being that even unmusical persons can readily learn to play the instrument, for the pick is guided always in the same playing-line by the guide-rod *F* and the end of the pick thereby kept always in the line of the dampers without attention on the part of the player. The rod *F'* has no important function, although I prefer to use both rods *F* and *F'* as a finish for the row of dampers, as they hide the edges of the dampers, which are usually rectangular pieces of felt or soft leather, carried by the damper-levers *a'*.

I have shown the rock-shafts *B*, &c., adjustable endwise across the strings, this, as will be clear without description, increasing the number of chords; but my invention will of course be embodied with or without this feature.

I am aware of the patent to Richie, No. 518,512, dated April 17, 1894, and disclaim all that is shown therein, for although Richie shows a row of dampers those dampers are over the strings and not under the strings, and there is no hint or suggestion in the Richie patent of dampers with the double function of dampers for the strings and supports for the end of the pick.

What I claim as my invention is—

1. In a stringed instrument a single row of dampers under the strings, and means for operating the individual dampers in sets to damp the strings not required for the desired chord; combined to form a single line of pick,

near the middle line of the single row of dampers, for all the chords; substantially as described.

2. In combination a series of dampers each
5 on its lever; those damper-levers; a series of rock-shafts crossing the damper-levers; arms from each rock-shaft each to operate one set

of levers; and finger-levers to operate the rock-shafts, substantially as described.

GEORGE ARTHUR FULLERTON.

Witnesses:

J. E. MAYNADIER,
JOHN R. SNOW.