

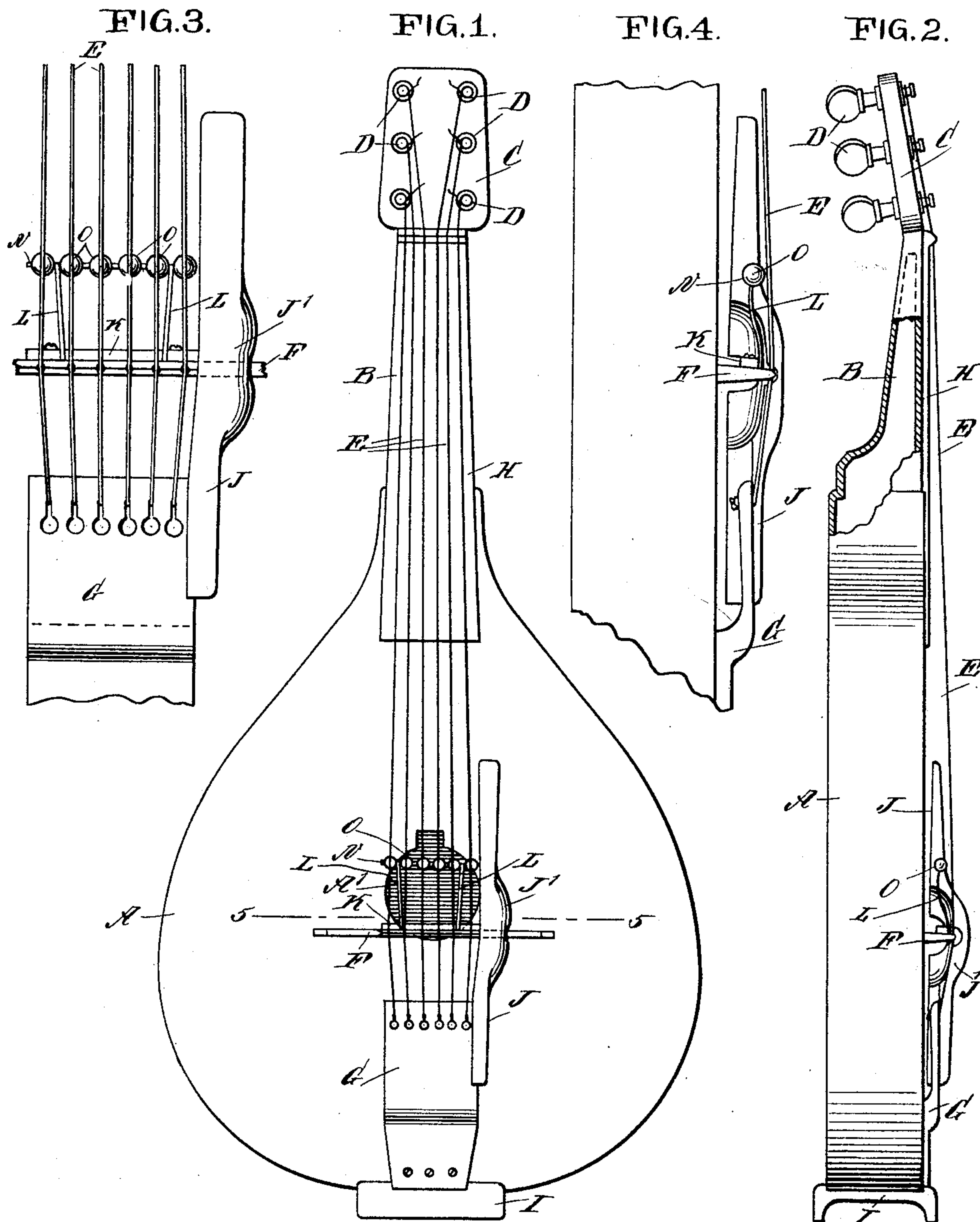
No. 636,692.

Patented Nov. 7, 1899.

F. L. PATCH.  
STRINGED MUSICAL INSTRUMENT.

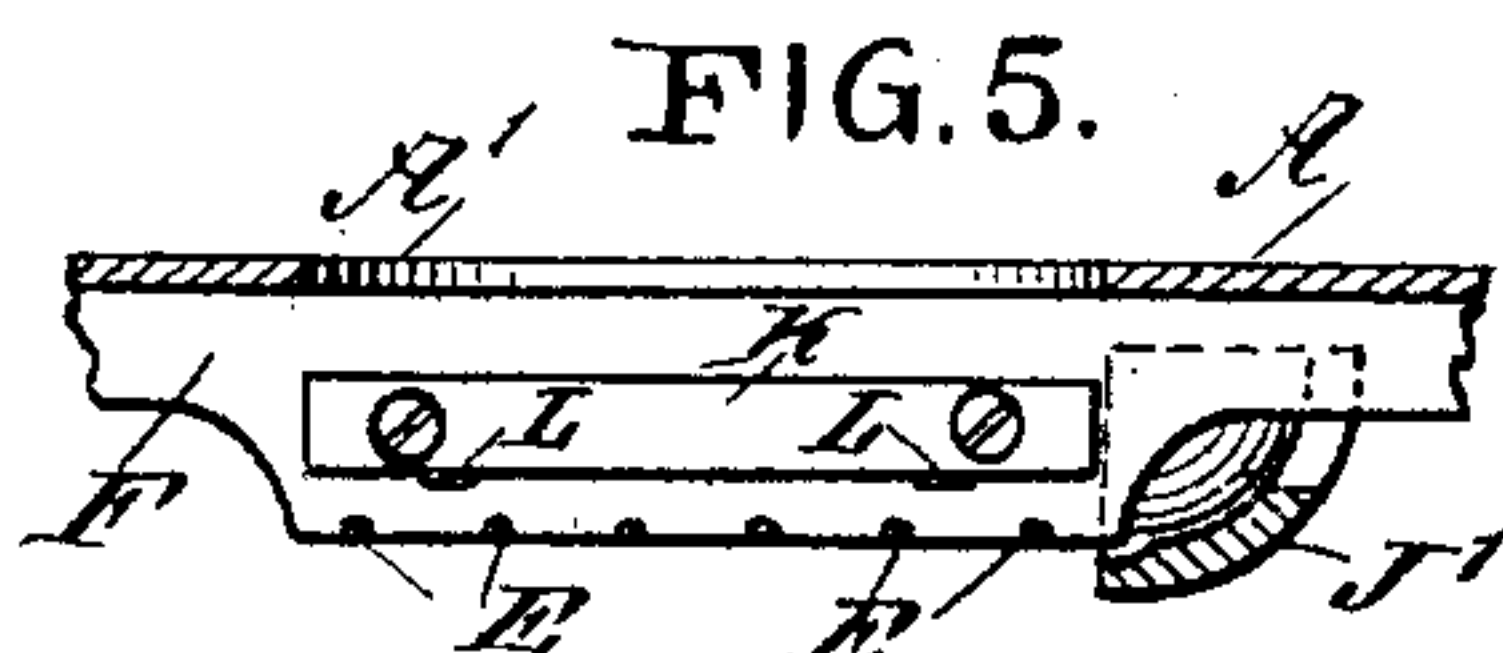
(Application filed Jan. 4, 1899.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANK LEONARD PATCH, OF PHILLIPSDALE, RHODE ISLAND.

## STRINGED MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 636,692, dated November 7, 1899.

Application filed January 4, 1899. Serial No. 701,121. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK LEONARD PATCH, of Phillipsdale, in the county of Providence and State of Rhode Island, have invented a new and Improved Stringed Musical Instrument, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved stringed musical instrument which I call a "melochord" and which is simple and durable in construction, very rich and mellow in tone when played, convenient to be played without causing much fatigue to the performer, and arranged to readily produce a tremolo effect whenever desired.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of my invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged plan view of the tremolo attachment and hand-rest. Fig. 4 is a side elevation of the same, and Fig. 5 is an enlarged transverse sectional view of details of the improvement on the line 5 5 in Fig. 1.

The improved stringed musical instrument is provided with a body A, approximately pear-shaped and terminating at its apex in a hollow neck B, carrying a head C, in which is mounted tuning-pegs D for strings E, extending over a bridge F and attached to a tailpiece G, secured to the top of the body A, as is plainly indicated in the drawings. The bridge F extends across the sound-opening A' in the top of the body A, and the strings E extend over a finger-board H, attached to the neck B and the apex of the body A, as is plainly indicated in the drawings.

On the edge of the body A, at the lower end thereof, is a knee-rest I, made approximately U-shaped to permit of conveniently supporting the instrument on the knee of the performer when using the instrument and executing the desired music.

On one side of the tailpiece G is secured a

hand-rest J, extending lengthwise over the body approximately parallel with the strings, the hand-rest J being curved at its middle portion J' and having a notch in the bottom thereof for the passage of one side of the bridge F, as is plainly indicated in the drawings.

It is evident by the arrangement described, that the operator can conveniently place one hand on the hand-rest J and pick the strings, at the same time that the instrument is, with the knee-rest I, on the performer's knee, the other hand pressing the strings E over the finger-board, according to the music to be executed.

On the upper face of the bridge F is secured a transversely-extending plate K (see Fig. 5) for supporting-springs L, extending under the strings over the sound-opening A', the free ends of the springs carrying a transversely-extending rod N, on which are secured balls O, arranged in alinement with the several strings E, as is plainly indicated in the drawings.

When the instrument is in a horizontal or an approximately vertical position, the balls O are out of contact with the strings E, and when it is desired to produce a tremolo effect then the operator tilts the instrument farther over to permit the balls to drop against the under side of the strings, so that when the strings are now picked a tremolo effect is produced.

It is understood that when the balls rest against the strings and the latter are picked the vibrations of the strings cause a vibration of the balls to produce the tremolo effect mentioned, the balls being free to vibrate, as they are spring-supported.

When the instrument is moved back to its normal position, the balls by their own weight swing away from the strings, the springs being held sufficiently yielding for the purpose. Thus by the operator slightly tilting the instrument, as described, the tremolo attachment is brought into use, and said attachment can be readily put out of action by tilting the instrument back to its normal position.

By giving the shape mentioned to the top A and making the neck B hollow I obtain a very resonant tone of a rich and mellow quality when picking the strings of the instru-



ment, and by having the hand-rest J and the knee-rest I the performer is enabled to readily execute any desired music without much fatigue.

- 5 By making the neck B hollow the vibratory power of the instrument is greatly increased, and it is evident that such neck may be applied to great advantage on other stringed musical instruments, such as violins, guitars,  
10 &c. By arranging the bridge over the sound-opening instead of to one side thereof, as is generally practiced, I am enabled to bring the strongest or loudest sounds directly into the opening to strike the bottom of body with  
15 such sounds, and thereby insure a corresponding loudness of the instrument, as the bottom, acting as a sounding-board, gives the tones back distinctly and exceedingly strong or full. The hand-rest J is bulged out to  
20 give sufficient room for the bridge.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A stringed musical instrument, comprising  
25 ing an approximately pear-shaped body having a sound-opening, a hollow neck, a head carrying tuning-pins for the strings, a tail-piece for the strings, a bridge spanning the sound-opening, a hand-rest carried by the  
30 tailpiece and extending over the body alongside the strings, and a tremolo attachment carried by the bridge and standing normally between the top of the body and the strings, substantially as shown and described.

- 35 2. A stringed musical instrument comprising a body having a sound-opening in its top, a knee-rest at the lower end of the body, a hand-rest extending over the body alongside the strings, a bridge extending across the  
40 sound-opening in the top of the body and a tremolo attachment carried by the bridge and adapted to engage the under side of the strings, substantially as described.

3. A stringed musical instrument provided  
45 with a body having a knee-rest secured to the side of the body at the lower end thereof, the knee-rest being approximately U-shaped in cross-section, the curvature of said knee-rest extending transversely to said side, substan-  
50 tially as described.

4. A stringed musical instrument having a body with a sound-opening in its top, a bridge secured at its ends to the said body and extending over the sound-opening, a tailpiece  
55 and a hand-rest arranged alongside the strings and the sound-opening and extending from the tailpiece to a point beyond the sound-opening, substantially as shown and described.

- 60 5. A stringed musical instrument provided with a tremolo attachment in the form of spring-supported balls standing normally be-

tween the top of the body and the strings the said balls being adapted to engage the under side of the strings when the instrument is  
65 tilted substantially as described.

6. A stringed musical instrument provided with a body having a sound-opening a bridge spanning the said opening, and a tremolo attachment carried by the bridge and standing  
70 normally between the top of the body and the strings, over the sound-opening, the said tremolo attachment being provided with means for engaging the under side of the strings, substantially as described.

- 75 7. A stringed musical instrument provided with a tremolo attachment comprising a spring-supported rod held between the strings and the top of the body of the instrument and in front of the bridge, and balls on the said  
80 rod, substantially as shown and described.

8. A stringed musical instrument having a body with a sound-opening in its top, a bridge secured at its ends to the said body and a tremolo attachment comprising springs car-  
85 ried by said bridge, and balls supported by the springs, the balls being arranged transversely over the sound-opening and standing normally between the top of the body and the strings, and adapted when the instrument is  
90 tilted to drop against the under side of the strings, substantially as described.

9. A stringed musical instrument provided with a hand-rest secured on one side of the tailpiece and extending lengthwise over the  
95 body at one side of the sound-opening and approximately parallel with the strings, substantially as shown and described.

10. A stringed musical instrument provided with a hand-rest extending over the body  
100 alongside the strings, the middle portion of the rest being curved and having a notch in the bottom thereof for the passage of the bridge, substantially as shown and described.

11. A stringed musical instrument, provided  
105 with a tremolo attachment, comprising springs supported from the bridge, a transverse rod held on the free ends of said springs, and balls on said rod, substantially as shown and described.

12. A stringed musical instrument provided with a body having a sound-opening, a bridge having a transversely-extending plate secured thereto, springs supported by said plate and extending under the strings over the sound-  
115 opening, a transversely-extending rod carried at the free ends of the springs, and balls secured to the said rod and arranged in a line with the several strings, substantially as described.

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Witnesses:

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