

(No Model.)

R. L. TURNER.
TAILPIECE FOR MUSICAL INSTRUMENTS.

No. 519,416.

Patented May 8, 1894.

Fig. 1.

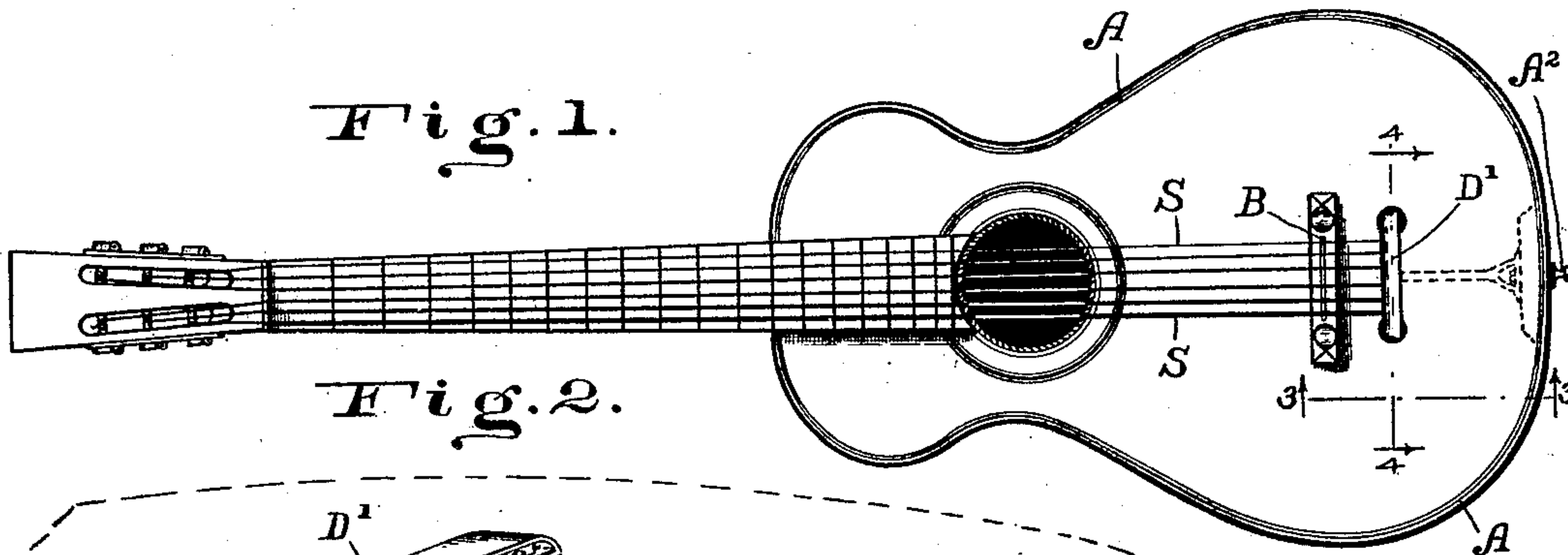


Fig. 2.

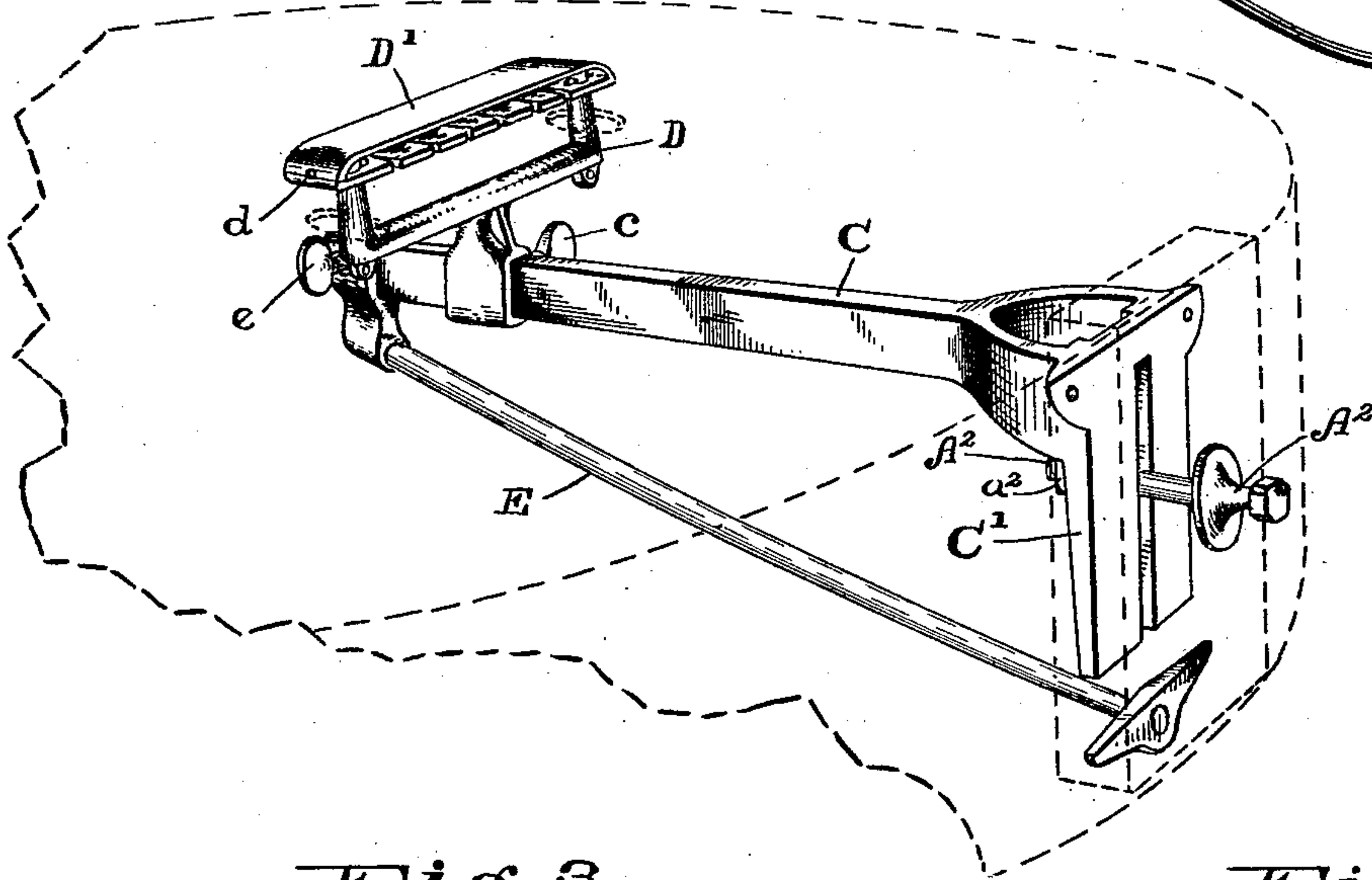


Fig. 3.

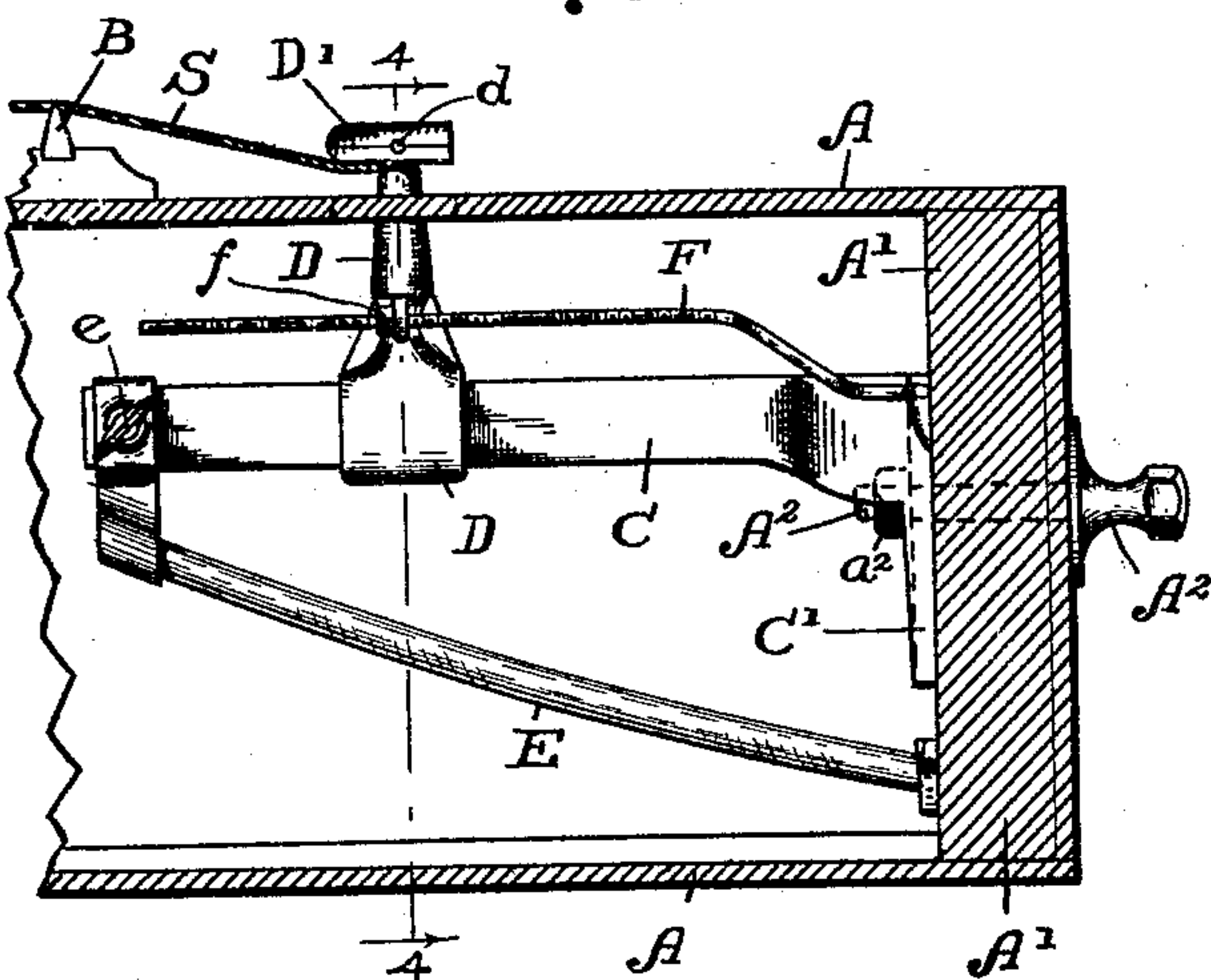
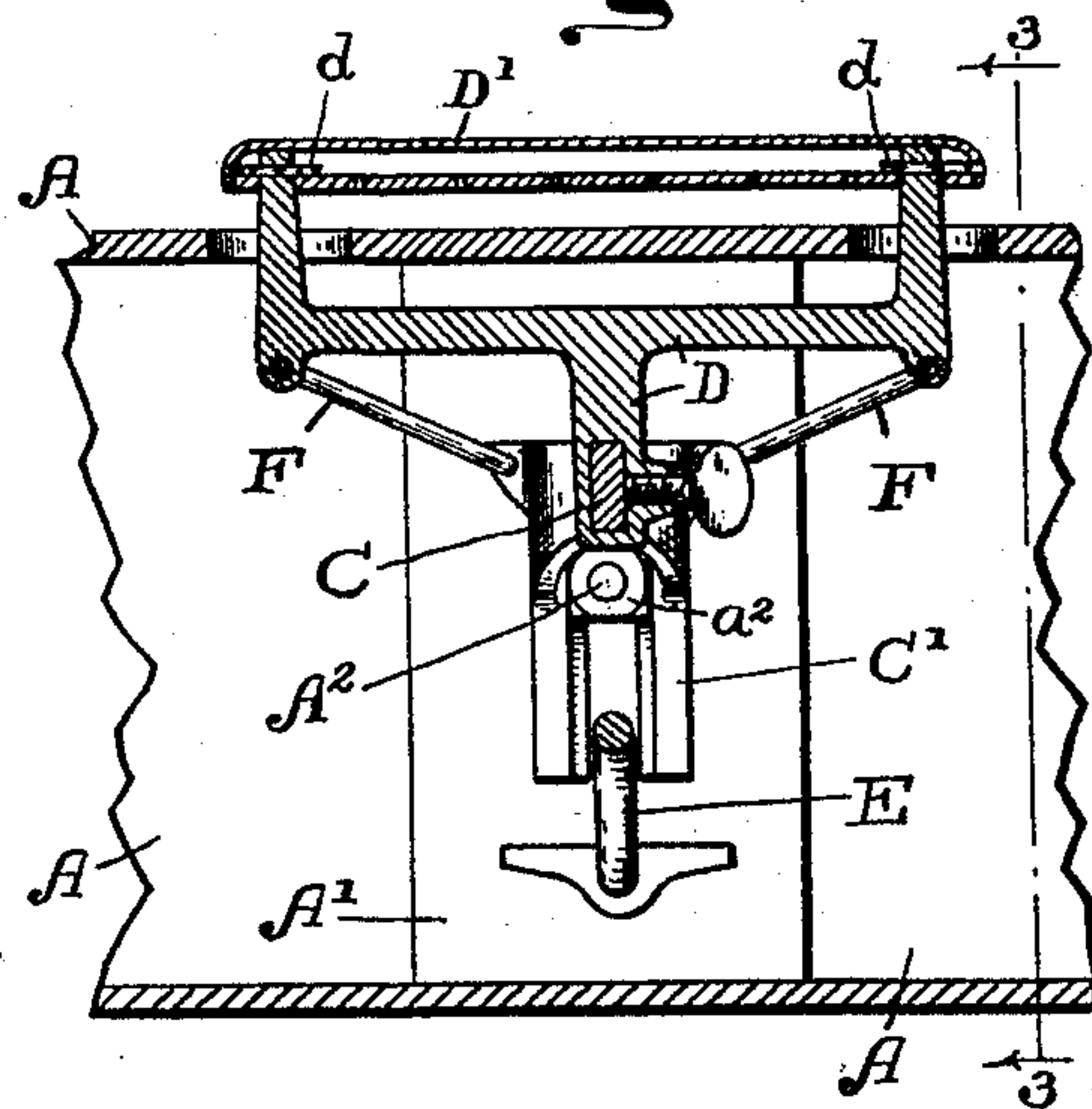


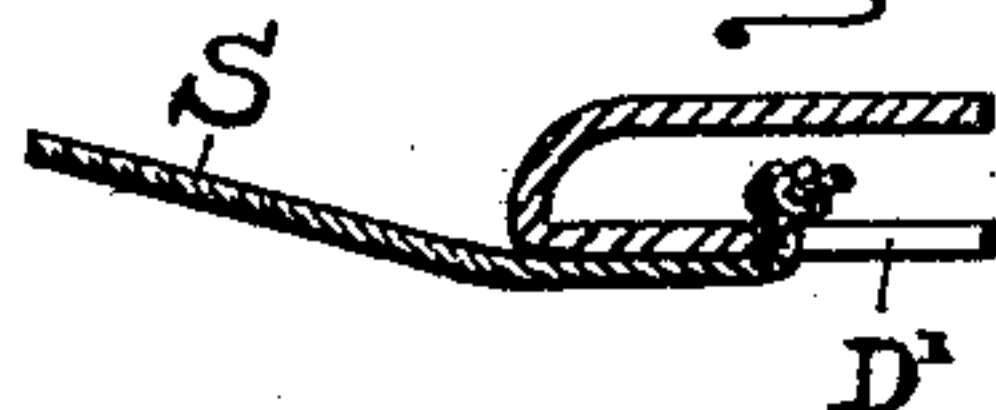
Fig. 4.



WITNESSES:

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Fig. 5.



INVENTOR

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ROBERT L. TURNER, OF INDIANAPOLIS, INDIANA.

TAILPIECE FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 519,416, dated May 8, 1894.

Application filed February 6, 1894. Serial No. 499,248. (No model.)

To all whom it may concern:

Be it known that I, ROBERT L. TURNER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Tailpieces for Musical Instruments, of which the following is a specification.

This invention relates to that class of devices known as "tail-pieces," to which the strings of musical instruments are attached at the lower end. I have designed it especially for guitars, but it may obviously be attached to any instrument of similar form, as will be readily understood.

Said invention will be first fully described, and the novel features thereof then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a top or plan view of a guitar provided with a tail-piece embodying my said invention; Fig. 2 a perspective view of a tail-piece separate, the position of the adjacent portion of the guitar case being indicated by dotted lines; Fig. 3 a view showing the guitar case in section, and the tail-piece in side elevation, as seen from the dotted lines 3 3 in Figs. 1 and 4; Fig. 4 a transverse sectional view on the dotted lines 4 4 in Figs. 1 and 3, and Fig. 5 a detail transverse sectional view of the string piece on the dotted line 5 5 in Figs. 1 and 4.

In said drawings the portions marked A represent the case of the guitar or other musical instrument; B the ordinary bridge thereon; C the arm forming the main member of my improved tail-piece; D the member to which the strings are attached; E the supporting brace, and F stay rods.

The case A is of any usual or desired form, and needs no special description. It has the usual block A' set inside at the extreme tail end. The bridge B is or may be also of any ordinary or desired form, and supports the strings S in the usual manner.

The part C of my tail-piece is in the form of an arm having a comparatively large bearing plate C' formed integrally therewith, and at right angles thereto, which bearing plate is slotted, and through which slot a bolt A²

connecting it to the case A passes, and the outer end of this bolt forms the usual "button" upon the lower end of the instrument. The bearing portion C' of this part C is slotted rather than provided with a hole or holes for convenience in putting the same in place, and in adjusting the same to the required height. The nut a² on the bolt A² is held from turning by being seated in a shallow way on the inside of this plate, as shown in Fig. 4, but the piece as a whole is easily moved up and down, as will be readily understood. When put in place, with the bolt screwed up tightly, it is held firmly in position, as will be plainly seen.

The part D consists of a cross-bar having two arms which extend up through holes in the sounding board of the instrument, to the top of which arms the string piece is secured; with an arm extending downwardly having a perforation which slides on over the arm C. This part as a whole may be secured to said arm at any desired point by means of a thumbscrew c. The top part D', to which the strings are attached, is preferably formed of sheet metal, bent as shown, and placed on the upwardly projecting arms of the part D, where it is secured, preferably by passing in small pins d through perforations therein, which hold this part D' firmly and rigidly onto said arms. The under half of said part D' has a number of notches in it, equal to the number of strings, and the method of attachment is to form a knot in the end of each string and place it into one of these notches, when the knot will draw in between the two plates of this part D', thus removing it from view, and protecting it. The strings, as shown in Fig. 3, are then drawn up over the bridge and carried to the other end of the instrument, where they are secured in the ordinary manner. It will be observed that by this means of attachment the lower ends of the strings are carried directly from the base or tail-piece of the instrument without coming in contact, either immediately or through any other part, with the sounding board of the instrument; while the main part of the tail-piece itself is inside the instrument and entirely out of the way and hidden from view, only the portion to which the strings are directly attached appearing above the surface

of the sounding board. The holes in the sounding board through which the upwardly projecting arms of the part D pass are somewhat larger than said arms, so that they are
 5 entirely free from said sounding board. The part D and the part D' carried thereby being adjustable by the means described, one of my improved tail-pieces can be applied to any instrument, and adjusted to the desired point,
 10 without reference to the size of the instrument.

In order to more stiffly and firmly support my tail-piece I prefer to attach the brace E which rests against the block A' inside the
 15 lower end of the instrument, at one end, and is connected to the outer end of the bar C at the other end. This is also adjustable by means of a socket slipped over the end of the bar C, and a set-screw e which is placed there-
 20 in, and by which this device can be clamped to said bar C, and thus some adjustment may be provided.

The rods F, while I provide for them, I expect to use only in the larger instruments.
 25 They are attached at their rear ends to the base of the arm C, and run thence forward through eyes in the part D on each side. Small nuts f enable this adjustment to follow that of the other parts. Obviously, when these are
 30 used, they hold the ends of the part D firmly from being pulled one way or the other, and thus, in very large instruments, when the strings are applied upon one side, it is not liable to pull this part around, or strain it out of
 35 place, as might be done if this support were not used. Generally, and especially in medium and smaller sized instruments, these rods will not be found to be necessary; but I prefer to use them as a precautionary meas-
 40 ure in very large instruments.

The great advantage of my tail-piece is that it is wholly inclosed and out of the way, and bears at no part upon the sounding part of the instrument. As will be readily under-
 45 stood, this latter feature is very valuable in that it removes all interference with the vibration of the sounding board or top, and thus the tone of the instrument is improved and rendered louder. The string piece and bridge
 50 can also be more conveniently brought near to each other, which is an advantage.

Having thus fully described my said inven-

tion, what I claim as new, and desire to secure by Letters Patent, is—

1. A tail-piece for musical instruments 55 adapted to be secured within the instrument, and having parts which are adapted to extend up through holes in the sounding board of the instrument, to which the strings are attached, said tail-piece thus being wholly inclosed, and
 60 free from contact with the sounding board of the instrument.

2. The combination, in a tail-piece for musical instruments, of an arm C, and a part D having arms extending up through holes in
 65 the top of the instrument, and a cross-bar D' on the top of said arms to which the strings are attached, the tail-piece being secured to the inner side of the lower end of the instrument, substantially as set forth. 70

3. The combination, in a tail-piece for musical instruments, of the arm C, the part D adjustably mounted thereon and having arms which extend up through the top of the instrument, and a cross-bar D' to receive the
 75 strings, secured on the top of the arms of said adjustable part, substantially as set forth.

4. The combination, with a musical instrument, of a tail-piece adapted to be secured inside thereof, consisting of an arm C with a
 80 base C', and a bolt A² by which it is secured to said instrument, a part D mounted on said arm C and having arms which extend up through holes in the top of said instrument, and a suitable part on the top of said arms
 85 to which to attach the strings.

5. The combination, with a tail-piece for musical instruments adapted to be secured inside of the same, of a brace E, substantially
 90 as and for the purpose set forth.

6. The combination, with a musical instrument, of a tail-piece consisting of a main portion and a cross portion and adapted to be secured within the instrument, means for so se-
 95 curing the said tail-piece, and tie-rods F for steadying the cross piece, substantially as shown and described.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 1st day of February, A. D. 1894.

ROBERT L. TURNER. [L. S.]

Witnesses:

CHESTER BRADFORD,
 JAMES A. WALSH.