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**The present invention relates to a wireless transmitter or relay of the type to be mounted on the strap of a musical instrument. The configuration of the wireless transmitter or relay's housing makes it especially suitable for a firm fastening to the strap.**

Fortsættes...

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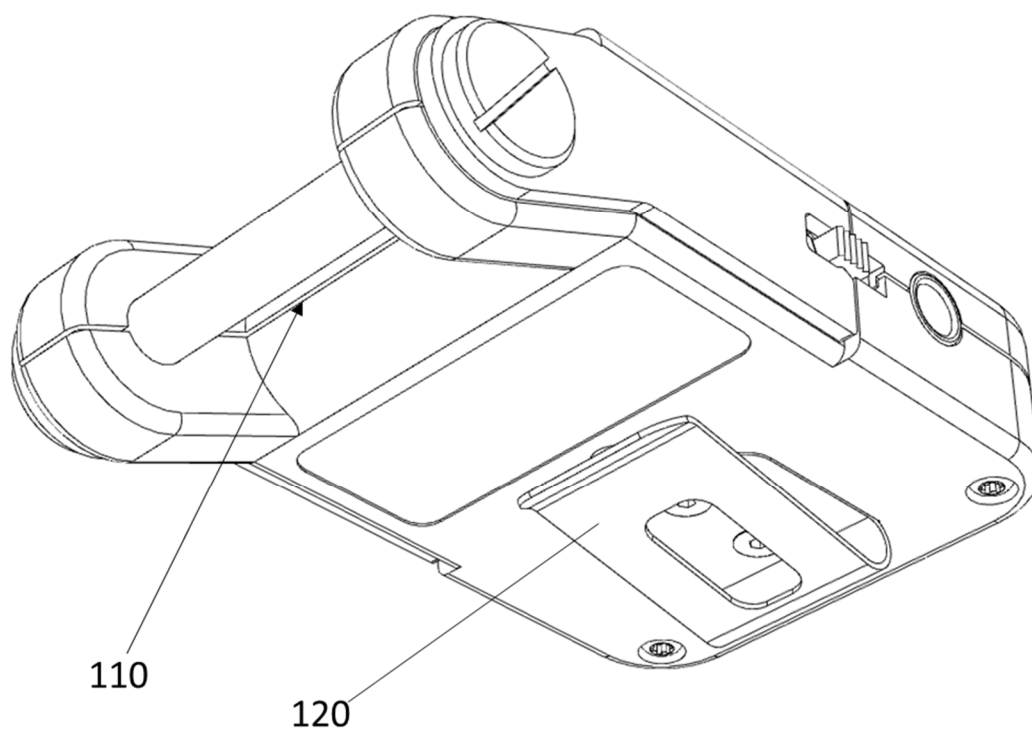


Fig. 1

**Wireless transmitter or relay for musical instruments*****Field of the Invention***

The present invention relates to the field of wireless transmitters of the type mounted on the strap of a musical instrument.

***Background of the Invention***

This invention relates broadly to wireless transmitters of the type mounted on the strap of an electrical stringed instrument, such as an electrical guitar or a bass guitar.

In order to practically hold the instrument while playing, a strap is used for supporting the instrument to the shoulders and back of the practitioner of the instrument, such as a guitarist. Typically, the strap is mounted to the instrument by the use of nuts anchored to the body of the instrument using screws. Further most guitar straps have a mechanism for adjusting the length of the strap.

Straps made from fabric or nylon typically use buckles at one or both ends of the strap for length adjustment, while straps made from leather typically use a ladder system for length adjustment. Straps using a ladder lock attachment comprises a main strap and an adjustment tab. The main strap has a series of slots at one or both ends of the strap and a hole for attachment to one of the nuts on the instrument. The adjustment tab has a width comparable to the slot opening of the main strap with one end having a hole for attachment to one of the nuts on the instrument. By threading the adjustment tab through some or all of the slots of the main strap, the user can assemble and tune the length of the assembled strap.

In order to allow wireless audio transmission from a musical instrument, such as a guitar, to an instrument amplifier, instruments for effects, such as pedals, multi effect processor, or digital modelling amplifiers, a wireless transmitter is mounted somewhere near the instrument, while a wireless receiver is placed somewhere near the guitar amplifier, etc. Typically, the wireless transmitter is mounted on the guitar strap attached to the guitar, as the guitarist then easily can put the guitar and transmitter down in a single action.

Typically, a single clip embedded into a wireless transmitter is used for mounting said transmitter to a strap. Clips are often used for belt mounted products, such as belt clips for walkie talkies or various hand tools. Belt clips works well when they are mounted to horizontally aligned bodies, such as trouser belts as gravity helps secure the attachment of the clip. When mounting a wireless transmitter with a clip to a guitar strap, that in nature is a vertically aligned body, gravity works against the attachment of the clip resulting in a much lesser secure mount. The use of a single clip for mounting the transmitter to the strap is not a secure fixation resulting in dropped transmitters and or worry-full experiences for users. A compromise is often found by guitarists, using various kinds of adhesive tape or pouches for securing the transmitter to the strap as it is most critical for a performance that the transmitter is secure and fixated.

### ***Object of the Invention***

The objective of the present invention is to provide a system that solves some or all the above-mentioned problems.

### ***Summary of the Invention***

A first aspect of the present invention relates to a wireless transmitter or relay adapted for being mounted on a strap for a musical instrument, said transmitter or relay comprising a housing adapted for covering the electronics of said wireless transmitter or relay;

wherein said housing comprises:

- a first fixation mechanism configured as a slot adapted for receiving said strap for said musical instrument; and
- a second fixation mechanism configured either as:
  - a) a slot adapted for receiving said strap for said musical instrument; or
  - b) a strap clip adapted for being fastened to said strap.

The present invention is a fastening mechanism embedded into the housing of a wireless musical instrument transmitter or relay, such as a guitar transmitter, making for a firm fastening to the strap.

The wireless musical instrument transmitter or relay may be for any musical instrument to be carried by a shoulder strap or the like, such as a guitar, bass guitar, and wind instruments, such as a saxophone, or the like.

In one or more embodiments, the second fixation mechanism is configured as a slot adapted for receiving said strap for said musical instrument.

In one or more embodiments, the second fixation mechanism is configured as a strap clip adapted for being fastened to said strap. The strap clip allows the user to mount the transmitter with a clip to a guitar strap of any type in the traditional sense. Furthermore, this configuration allows the user to mount and securely fixate the transmitter to a strap of the type using a ladder system for adjusting the length of the strap using a strap clip and a slot. By mounting the transmitter's clip inside one of the slots on the main strap and then thread the adjustment tab through not only the main strap but also through the slot of the first fixation mechanism, a secure fixation of the transmitter to the strap is made, while the strap has been assembled at the same time. Preferably, the strap clip comprises a leaf spring with a passageway arranged perpendicular to the width of said slot of said first fixation mechanism.

In one or more embodiments, the strap clip is configured for fitting into a slot of a musical instrument strap comprising a ladder system for length adjustment.

In one or more embodiments, the housing comprises a major part and an elongate rod, wherein said slot of said first fixation mechanism is defined by said elongate rod spanning along the width of said slot, and releasably fastened to said major part. Preferably, the wireless transmitter or relay further comprises a battery enclosure with a lid, and wherein said lid is hingedly connected to said rod. This configuration allows for a compact device that secures that the battery cover will not be lost.

Preferably the rod defining a part of the first fixation mechanism has a curved side face adapted for slidingly receiving a strap for a musical instrument.

A second aspect relates to a musical instrument strap comprising the wireless transmitter or relay according to the present invention.

In one or more embodiments, the musical instrument strap further comprises a ladder system for length adjustment.

It should be noted that embodiments and features described in the context of one of the aspects of the present invention also apply to the other aspects of the invention.

### ***Brief description of the figures***

Figures 1-4 depict different views of a wireless transmitter or relay for a musical instrument in accordance with various embodiments of the invention.

Figure 5 shows a musical instrument strap in accordance with various embodiments of the invention, attached to an electric guitar.

Figure 6 shows the two mayor components of a musical instrument strap's ladder system for length adjustment.

Figures 7-8 are schematic drawings on how to mount a wireless transmitter or relay for a musical instrument in accordance with various embodiments of the invention to a musical instrument strap.

### ***Description of the Invention***

Referring to Figure 1, the general scheme of the invention is shown. Here, the wireless transmitter or relay 100 is shown fastened to a shoulder strap 200 for an electric guitar 10. For the most part, strap mounted wireless transmitters for electric guitars or electric bass guitars have changed little over the past few decades. To mount the transmitter to the guitar's strap a single clip is typically used. This works universally on all guitar strap types; however, it is not a secure fixation.

Figures 1-4 depict different views of a wireless transmitter or relay 100 for a musical instrument 10 in accordance with various embodiments of the invention.

The transmitter or relay 100 comprises a housing adapted for covering the electronics (130, Figure 4) of said wireless transmitter or relay 100.

The housing comprises a first and a second fixation mechanism. The first fixation mechanism is configured as a slot 110 adapted for receiving the strap (200, Figure 5) for said musical instrument 10. The housing comprises a major part 140, a battery enclosure with a lid 160, and an elongate rod 150. The slot 110 of the first fixation mechanism is defined by the elongate rod 150 spanning along the width of said slot 110, and releasably fastened to said major part 140. The lid 160 is hingedly connected to said rod 150 and has a curved side face adapted for slidably receiving a strap 200, e.g., the adjustment tab 230 as described below, for a musical instrument 10.

The second fixation mechanism is configured as a strap clip 120, also adapted for being fastened to said strap 200. The strap clip 120 is shown comprising a leaf spring with a passageway arranged perpendicular to the width of the slot 110 of the first fixation mechanism. The strap clip 120 may be mounted to the strap 200 in many ways but is here especially intended for fitting into a slot 210 of a musical instrument strap 200 comprising a ladder system for length adjustment. Such a ladder system comprises a main strap 220 with a plurality of slots 210, and an adjustment tab 230 adapted for being threaded through said slots 210. By mounting the strap clip 120 inside one of the slots 210 on the main strap 220 and then thread the adjustment tab 230 through not only the main strap 220 but also through the slot 110 of the first fixation mechanism, a secure fixation of the transmitter or relay to the strap 200 is made, while the strap 200 has been assembled and length adjusted at the same time. Figures 7-8 are schematic drawings on how to mount a wireless transmitter or relay 100 for a musical instrument 10 in accordance with various embodiments of the invention to a musical instrument strap with a ladder system. As can be seen, the strap clip 120 is adapted to fit into a slot 210 on the main strap 220 together with a part of the adjustment tab 230. Its slotted rear end 232 secures the adjustment tab 230 fixed to the main strap 220, while the front end 234 is used as the penetrating end for sewing the adjustment tab 230 in and out of the slots 210, 110.

***References***

|     |                               |
|-----|-------------------------------|
| 10  | Musical instrument            |
| 100 | Wireless transmitter or relay |
| 110 | Slot                          |
| 120 | Strap clip                    |
| 130 | Electronics                   |
| 140 | Major part                    |
| 150 | Rod                           |
| 160 | Lid                           |
| 200 | Strap                         |
| 210 | Slot                          |
| 220 | Main strap                    |
| 230 | Adjustment tab                |
| 232 | Slotted rear end              |
| 234 | Front end                     |

**Claims**

1. A wireless transmitter or relay (100) adapted for being mounted on a strap (200) for a musical instrument (10), said transmitter or relay (100) comprising a housing adapted for covering the electronics (130) of said wireless transmitter or relay (100);

**characterized in that** said housing comprises:

- a first fixation mechanism configured as a slot (110) adapted for receiving said strap (200) for said musical instrument (10); and
- a second fixation mechanism configured either as:
  - a) a slot adapted for receiving said strap for said musical instrument (10); or
  - b) a strap clip (120) adapted for being fastened to said strap (200).

2. The wireless transmitter or relay (100) according to claim 1, wherein said second fixation mechanism is configured as a slot adapted for receiving said strap (200) for said musical instrument (10).

3. The wireless transmitter or relay (100) according to claim 1, wherein said second fixation mechanism is configured as a strap clip (120) adapted for being fastened to said strap (200).

4. The wireless transmitter or relay (100) according to claim 3, wherein said strap clip (120) comprises a leaf spring with a passageway arranged perpendicular to the width of said slot (110) of said first fixation mechanism.

5. The wireless transmitter or relay (100) according to any one of the claims 1-4, wherein said strap clip (120) is configured for fitting into a slot (210) of a musical instrument strap (200) comprising a ladder system for length adjustment.

6. The wireless transmitter or relay (100) according to any one of the claims 1-5, wherein said housing comprises a major part (140) and an elongate rod (150), wherein said slot (110) of said first fixation mechanism is defined by said

elongate rod (150) spanning along the width of said slot (110), and releasably fastened to said major part (140).

7. The wireless transmitter or relay (100) according to claim 6, further comprising a battery enclosure with a lid (160), and wherein said lid (160) is hingedly connected to said rod (150).

8. The wireless transmitter or relay (100) according to any one of the claims 6-7, wherein said rod (150) has a curved side face adapted for slidingly receiving a strap (200) for a musical instrument (10).

9. A musical instrument strap (200) comprising the wireless transmitter or relay (100) according to any one of the claims 1-8.

10. The musical instrument strap (200) according to claim 9, further comprising a ladder system for length adjustment.

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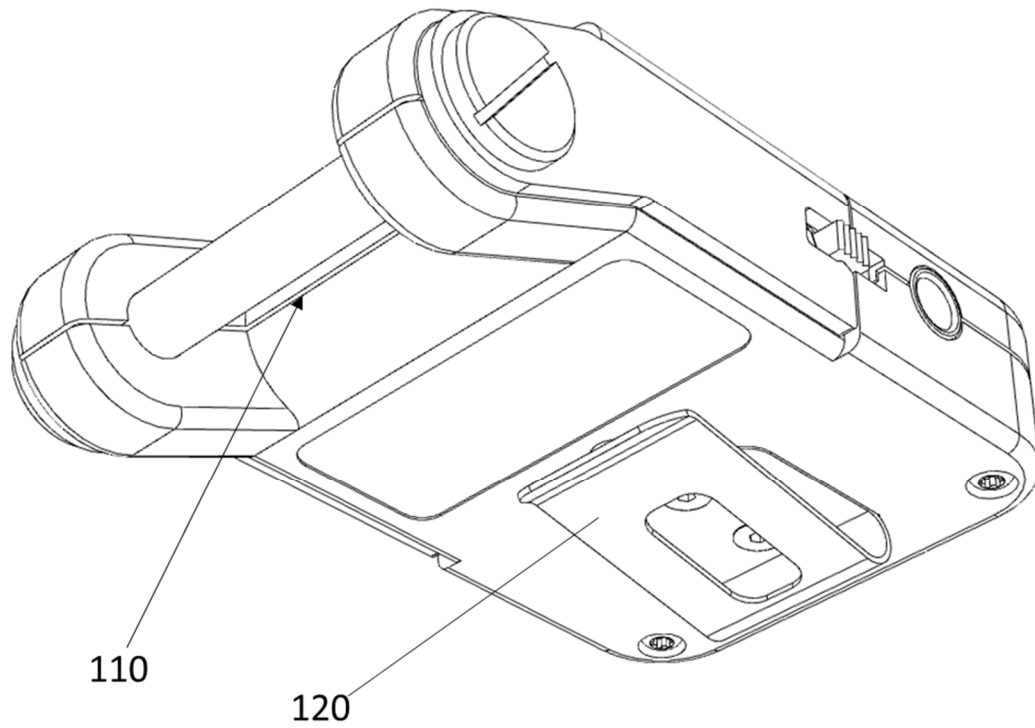


Fig. 1

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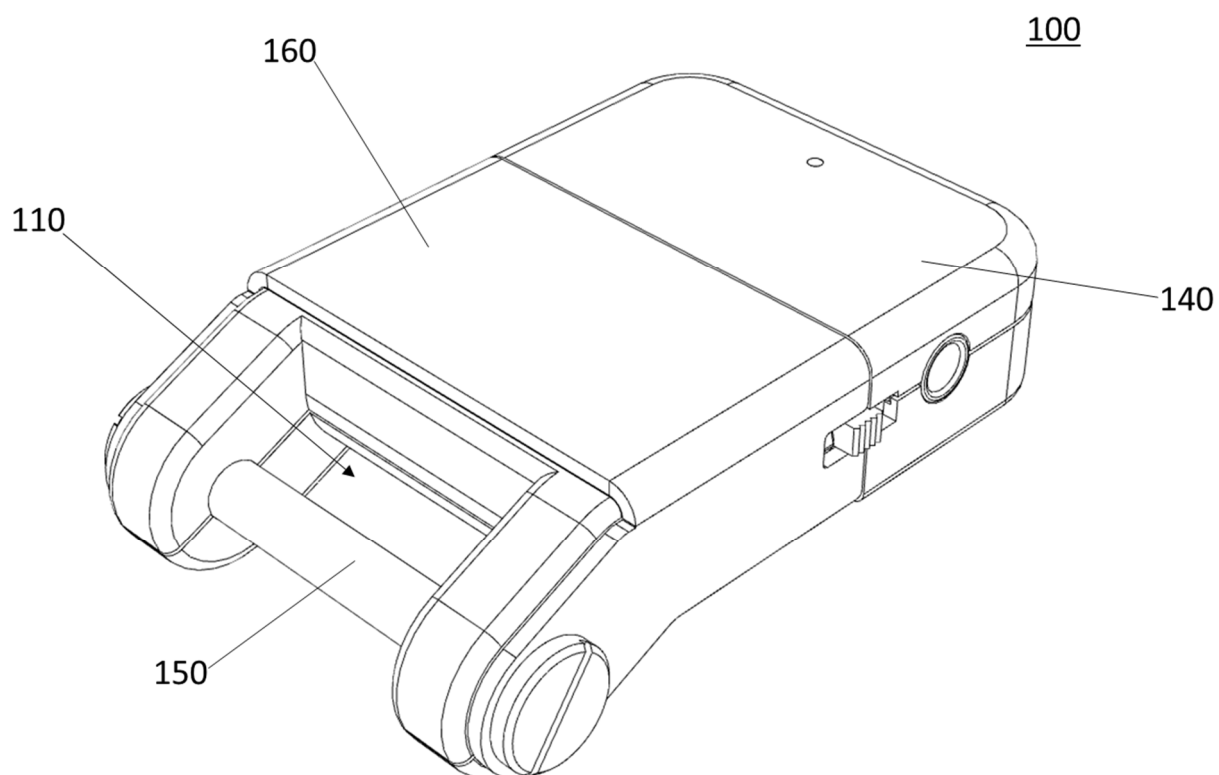


Fig. 2

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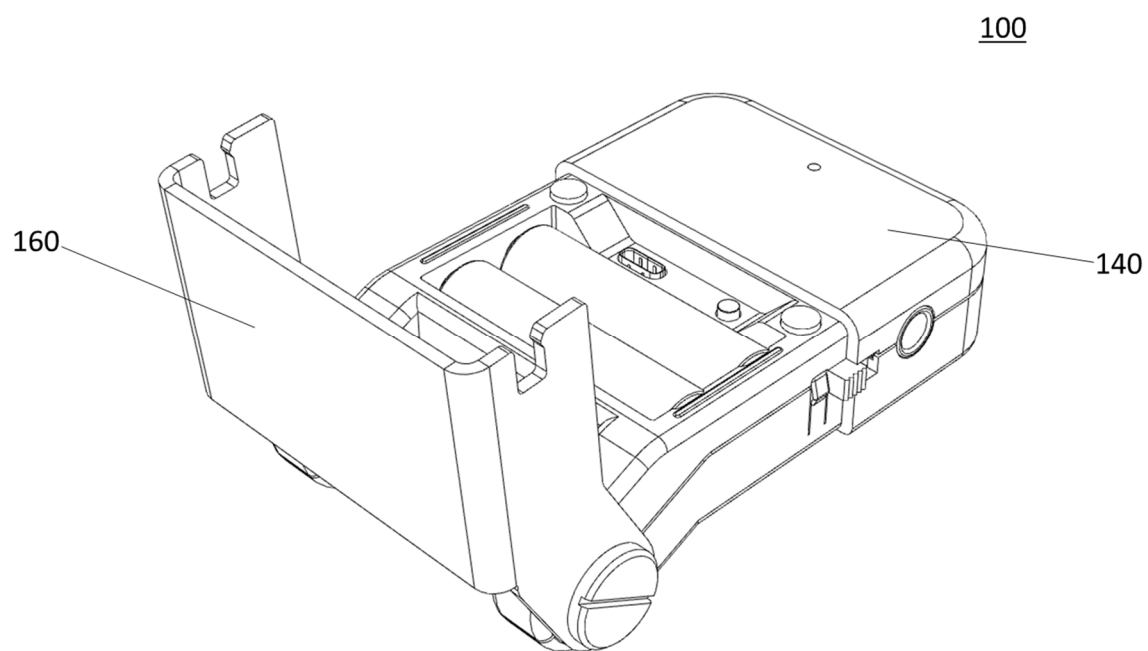


Fig. 3

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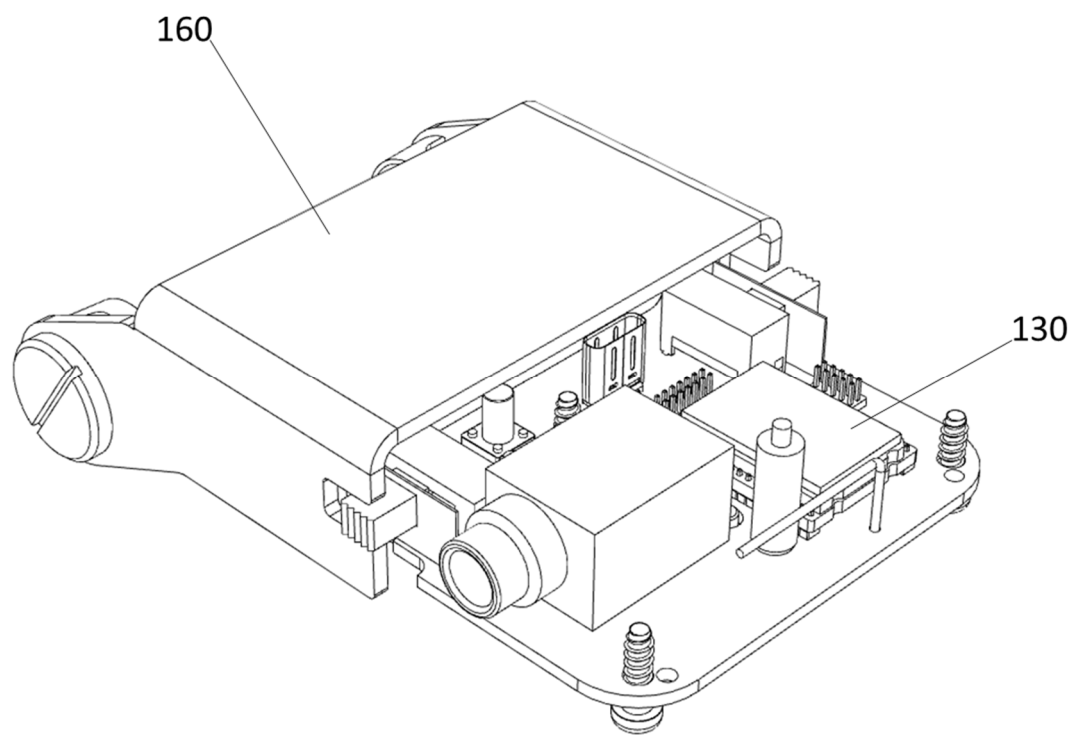


Fig. 4

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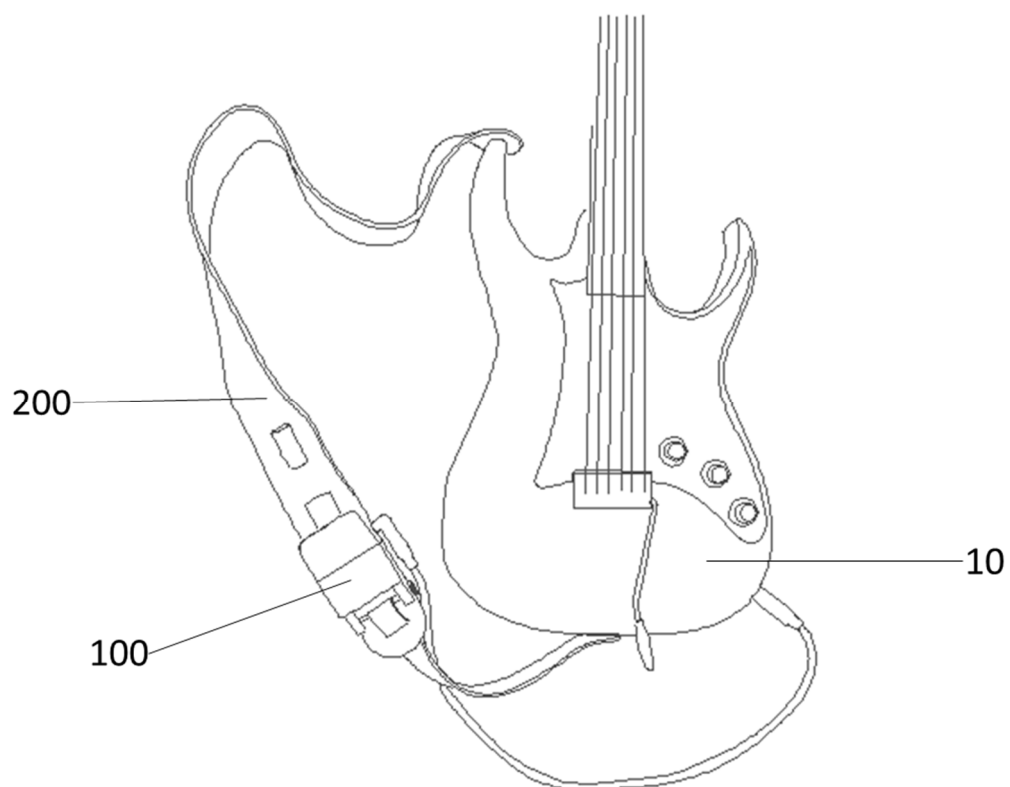


Fig. 5

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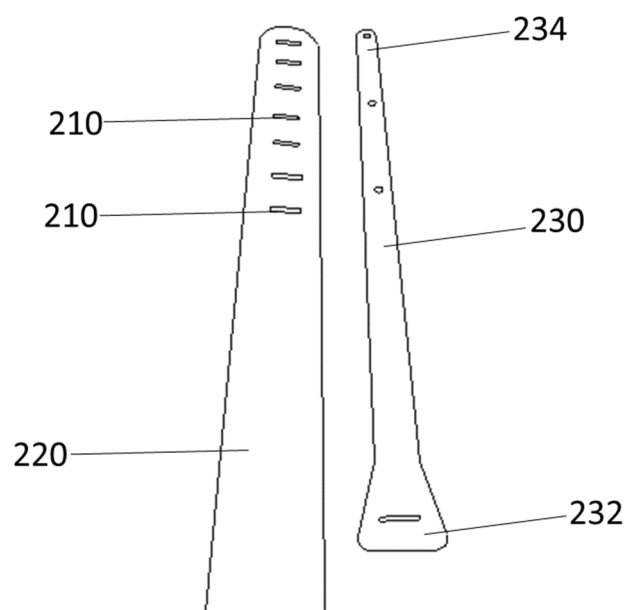


Fig. 6

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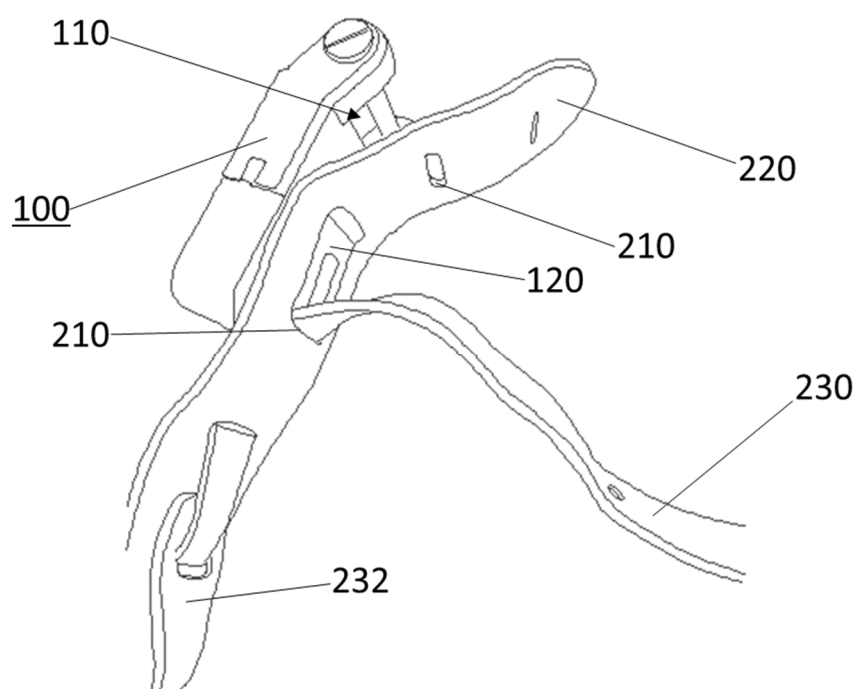


Fig. 7

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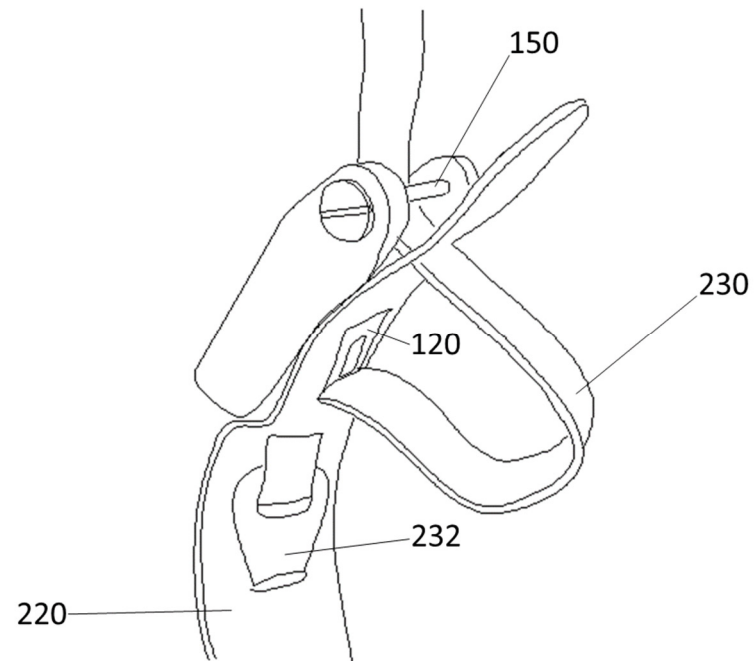


Fig. 8