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Shockley

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[54] **ACOUSTIC AND ELECTRIC COMBINATION GUITAR**

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[51] **Int. Cl.**[5] **G10D 1/08**; G10H 1/32

[52] **U.S. Cl.** **84/291**; 84/263; 84/267; 84/290

[58] **Field of Search** 84/1.14–1.16, 84/1.04, 1.06, 263, 291, 267, 723, 726, 731, 743

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Assistant Examiner—Matthew S. Smith

[57] **ABSTRACT**

A combination guitar having a full acoustical hollow body with the standard neck, head and strings supported between tuners on the head to a bridge on the top panel of the guitar's acoustical body with a solid electric guitar body structurally attached to the side wall of the acoustical hollow body with a second neck, head and strings supported over electronic pick up devices to transmit to the amplifier with volume and balance control mechanisms for the electric portion of the guitar to balance with an acoustical pick up inside the hollow body for transmission to the amplifier.

7 Claims, 2 Drawing Sheets

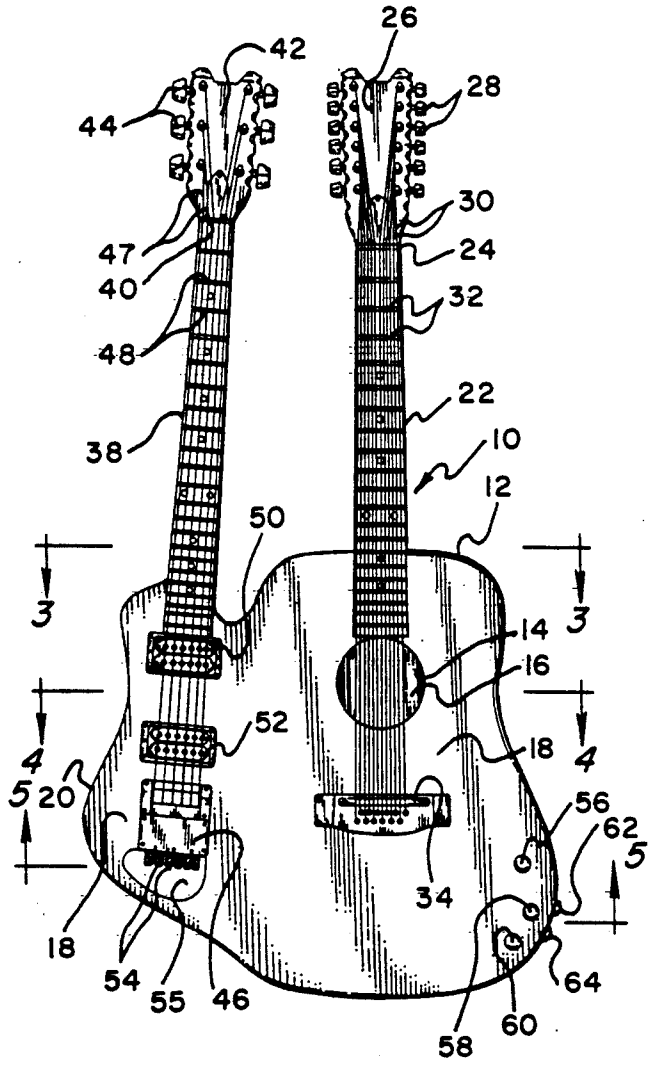

Fig. 1

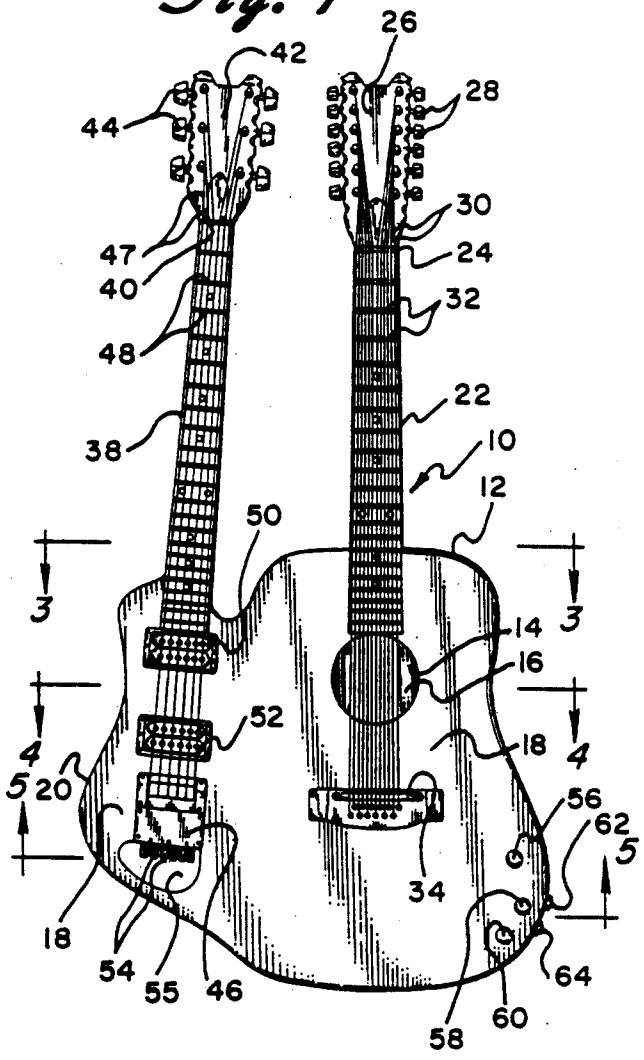
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Fig. 2

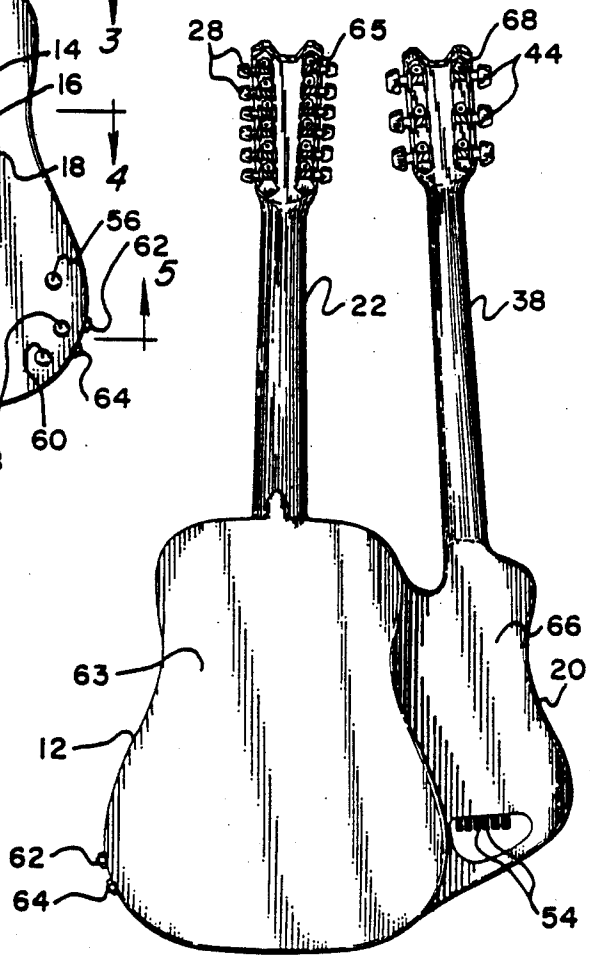
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Fig. 3

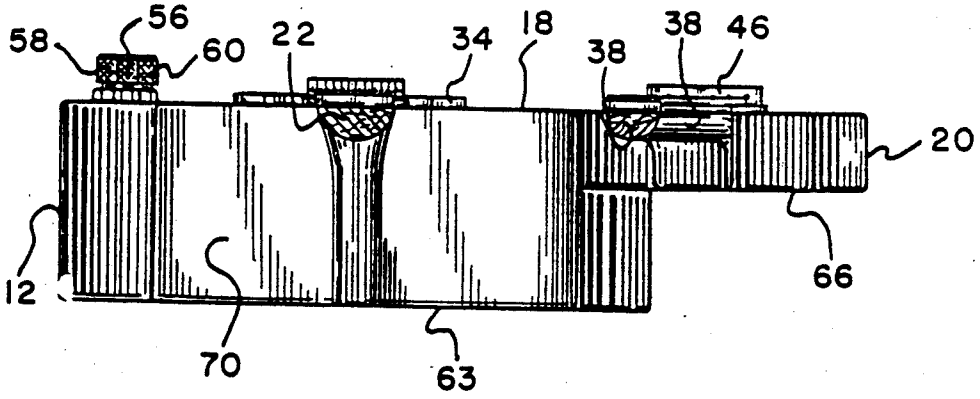


Fig. 4

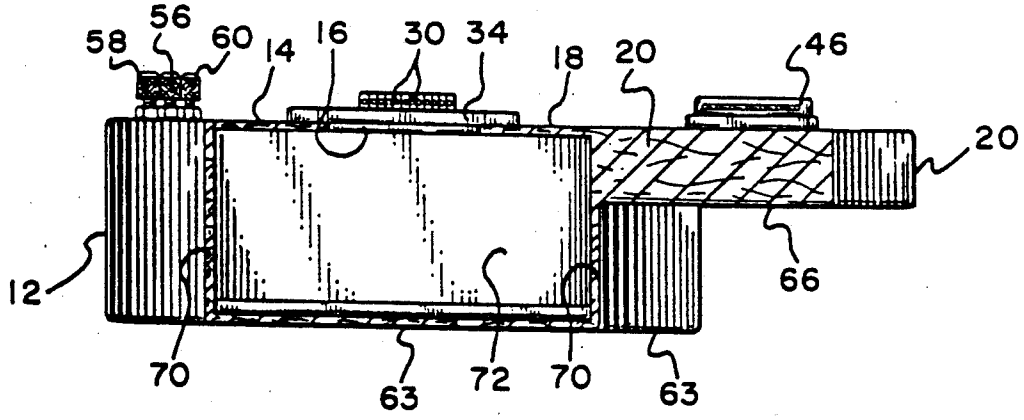
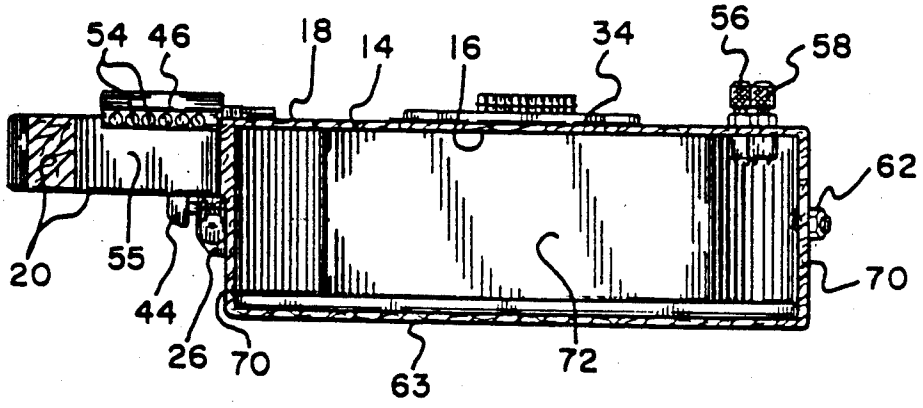


Fig. 5



ACOUSTIC AND ELECTRIC COMBINATION GUITAR

BACKGROUND OF THE INVENTION

This invention relates to a single device having the capabilities of both an acoustical and electric guitar.

Many musical compositions are written to include sections played on both an acoustical and on an electric guitar. In some instances, the parts switch back and forth between the two instruments. This poses no great problem when the musical composition is being played in a studio. The parts can be played independently, even separated by days, and then dubbed together simulating a continuous flow of music from one guitar to the other guitar. The problem arises when the musical composition having been recorded is now popular and the performer wishes to include that musical composition in a combination presentation. The common practice is to play the piece either on the acoustical guitar or on the electric guitar and not attempt to switch between instruments. This makes for a generally unsatisfactory combination performance as the musical composition is played and sounds much different from the recording and from the way the composer intended.

The prior art includes combination electric guitars and a number of combination instruments but those devices do not satisfy the need described above and do not attain the objects described herein below.

SUMMARY OF THE INVENTION

It is an object of the present invention to produce a single musical instrument that can be played either as an acoustical guitar or as an electric guitar allowing the artist to switch back and forth with no interruptions.

It is a further of the present invention to provide a combination acoustical and electrical combination guitar that does not interfere with the acoustics of the acoustical body of the acoustical guitar.

It is a further object of the present invention to provide a single musical instrument that allows the interconnection of the electrical components to allow adjustment and balancing of the acoustical portion of the instrument with the amplifier and then adjust the electric portion of the instrument to the acoustical output through the amplifier.

The invention is an acoustical and electrical combination guitar including a hollow body for an acoustical guitar having a top panel with an aperture opening through the top panel to the interior of the hollow body and a continuous side wall. The combination guitar also includes a first neck attached at one end to the hollow body, a first head attached to a terminal end of the first neck, and a set of guitar strings strung and supported between tuners on the head over the aperture to a bridge attached to the top panel. The combination guitar further includes an acoustical pickup means attached to the hollow body, preferably attached inside the hollow body to pick up sounds for transmission to an amplifier means to amplify the sounds. The combination guitar further includes an electric guitar solid body attached to the side wall of the acoustical body, the solid body having a top surface facing the same direction as the top panel. The combination guitar also includes a second neck attached to the solid body, a second head attached to a terminal end of the second neck, and a second set of strings strung and supported between second tuners on the second head and a second bridge attached to the top surface, over electronic pickup means to pick up sounds from the strings to transmit them to the amplifier means. The combination guitar also includes volume and treble/bass control means, preferably attached to the acoustical body, to control and balance the treble and bass output from the electric guitar. Finally, the combination guitar includes wire connection means to connect the various electric means to two jack connection means, one for the electric guitar output to the amplifier means and one for the acoustical guitar output, both to the amplifier means. It is preferred that the upper surface of the top panel of the acoustical hollow body and the top surface of the electric guitar form a continuous flat plane. It is further preferred that the jack connection means open from the hollow body. It is further preferred that the volume and balance control means comprise control knobs positioned on the upper surface of the top panel of the acoustical body. It is further preferred that the acoustic set of strings number twelve and the electric set of strings number six. It is further preferred that the necks face in parallel directions both normal to the top surface of the acoustical body. It is further preferred that the necks angle toward each other in the same plane.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a front view of an acoustical and electric combination guitar of the present invention.

FIG. **2** is a rear view of the combination guitar illustrated in FIG. **1**.

FIG. **3** is a cross-sectional view taken along lines **3**—**3** of FIG. **1**.

FIG. **4** is a cross-sectional view taken along lines **4**—**4** of FIG. **1**.

FIG. **5** is a cross-sectional view taken along lines **5**—**5** of FIG. **1**.

FIG. **6** is a schematic electrical diagram of a circuit of the acoustical and electric combination guitar illustrated in FIG. **1**.

DESCRIPTION OF PREFERRED EMBODIMENTS

In FIG. **1**, acoustical and electric combination guitar **10** is illustrated having acoustical hollow body **12** which includes top panel **14** through which aperture **16** is cut into the interior of the hollow body. Top surface **18** is a continuous flat surface not only of top panel **14** but also of solid body **20** of the electric portion of combination guitar **10**. Neck **22** is attached and extends from body **12** terminating at nut **24** at which position head **26** attaches and extends further in the same direction. Twelve knobs and tuner mechanisms **28** are rotatably connected into head **26** and twelve strings **30** connected to tuner mechanisms **28** are strung and supported by nut **24** and bridge and acoustic pick up **34** over frets **32** and hole **16**. The mechanism just described is a standard neck and string mechanism for twelve string acoustical guitars. Top surface **18** extends across the entire top panel **14** and over solid body **20** which supports neck **38** extending in the same general direction as neck **22**, except that it is angled slightly toward neck **22** in the same plane. Neck **22** and neck **38** face in generally parallel directions angled slightly toward each other and normal to face **18**. At the terminal end of neck **38** is nut **40** to which head **42** is attached. Six tuner knobs and mechanisms are attached and are part of head **42**. Strings **47** are attached to the tuner mechanisms and are supported by nut **40**

and bridge **46** over frets **48**, treble electrical pick up **52**, and base electrical pick up **50**. As with some electrical guitars, fine tuner knobs **54** allow mechanical fine tuning of strings **47**. For control of the electric portion of combination guitar **10** base volume control knob **56** and treble volume control knob **58** allow control of the volume of those two sections of the pick up. Balance control knob **60** allows balancing the base and treble to achieve a satisfactory sound. Female jack **62** provides connection of the acoustical microphone to the amplifier and female jack **64** provides connection of the electrical guitar portion output to the amplifier. As illustrated in FIG. **2**, bottom panel **62** of acoustical body **12** is a good deal deeper then bottom surface **64** of solid body **20**. While the volume and thus the depth of hollow body **12** is important to achieve the proper acoustical sound, the thickness of solid body **20** is merely for structural and/or appearance purposes. In this view, rack and pinion gears **64** attached to tuner knobs **28** allow adjustment of the tightness of strings **30**. Likewise, rack and pinion gears **68** attached to knobs **46** allow the six strings of the electric guitar portion to be tightened or loosened to tune that set of strings.

In FIG. **3**, continuous side wall **70** is a curved upright wall extending around the entire hollow body **12** enclosing the entire space of the acoustical hollow body. The difference in the depth from top surface **18** of bottom **63** and bottom surface **66** is illustrated in this view. In FIG. **4**, interior space **72** of acoustical hollow body **12** is shown bounded by top panel **14**, bottom panel **63** and side wall **70**. This view also illustrates the melding of solid body **20** directly into side wall **70**. This drawing shows a single piece of wood but it should be understood that multiple pieces of wood may be used being glued together under pressure. This view also illustrates aperture **16** opening interior space **72** to strings **30**. FIG. **5** shows interior space **72** looking in the opposite direction and illustrating the end of bridge **46** with fine tuner knobs **54**. Opening **55**, allows easy access to fine tuner knobs **54** and extends entirely through solid body **20**.

FIG. **6** is a schematic diagram of a typical standard circuit that may be utilized in the combination guitar of the present invention. The microphone sound pick up **74** is located in the acoustical hollow body, but a sound pick up may be located proximate bridge **34**. The output is adjusted in amplifier **76** for output to loud speaker **78**. After that has been adjusted, the adjustments of the electric portion of combination guitar **10** from strings **47** is adjusted by knobs **56**, **68** and **60** to provide a suitable compliment to the acoustical guitar output.

While this invention has been described with reference to the specific embodiments disclosed herein, it is not confined to the details set forth and the patent is intended to include modifications and changes which may come within and extend from the following claims.

I claim:

1. An acoustic and electric combination guitar comprising;

(a) a single, integral body with both hollow and solid characteristics,

(b) said body having an acoustic guitar hollow portion and an electric guitar solid portion,

(c) a first neck having one end attached to the hollow portion and a free terminal end,

(d) a first head attached to the terminal end of the first neck,

(e) a first set of strings strung over an aperture and supported between a first set of tuners located on the first head and a bridge attached to the top panel of the acoustic guitar hollow portion,

(f) the electric guitar solid portion of the body having a top surface facing in the same direction as the top panel, and

(g) a second neck attached to and extending from the solid portion of the body in substantially the same direction as the first neck wherein said second neck has one end attached to the solid portion of the body and a free terminal end,

(h) a second head attached to said terminal end of the second neck,

(i) a second set of strings strung over electric pickups and supported between a second set of turners located on the second head and a second bridge attached to the top surface,

wherein the electric pickups pick up sound signals from the second set of strings and transmit the sound signals to an amplifier.

2. The combination guitar of claim **1** wherein the upper surface of the top panel of the acoustic hollow portion of the body and the top surface of the electric guitar solid portion of the body form a continuous flat plane.

3. The combination guitar of claim **1** further comprising jack connections which open from the hollow portion of the body.

4. The combination guitar of claim **1**, wherein the necks are substantially parallel to each other and normal to and coplaner with the upper surface of the top panel of said acoustic guitar hollow portion.

5. An acoustic and electric combination guitar comprising:

(a) a single, integral body with both hollow and solid characteristics,

(b) said body having an acoustic guitar hollow portion and an electric guitar solid portion,

(c) a first neck having one end attached to the hollow portion and a free terminal end,

(d) a first head attached to the terminal end of the first neck,

(e) a first set of strings strung over an apertureand supported between a first set of tuners located on the first head and a bridge attached to the top panel of the acoustic guitar hollow portion,

(f) the electric guitar solid portion of the body having a top surface facing in the same direction as the top panel,

(g) a second neck attached to and extending from the solid portion of the body in substantially the same direction as the first neck wherein said second neck has one end attached to the solid portion of the body and a free terminal end,

(h) a second head attached to said terminal end of the second neck, and

(i) a second set of strings strung over treble and bass electric pickups and supported between a second set of tuners located on the second head and a second bridge attached to the top surface,

wherein the treble and bass electric pickups pick up sound signals from the second set of strings and transmit the sound signals to an amplifier.

6. The combination guitar of claim **5**, wherein the upper surface of the top panel of the acoustic hollow portion of the body and the top surface of the electric guitar solid portion of the body form a continuous flat plane.

7. The combination guitar of claim **5**, wherein the necks are substantially parallel to each other and normal to and coplaner with the upper surface of the top panel of the acoustic guitar hollow portion.

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