

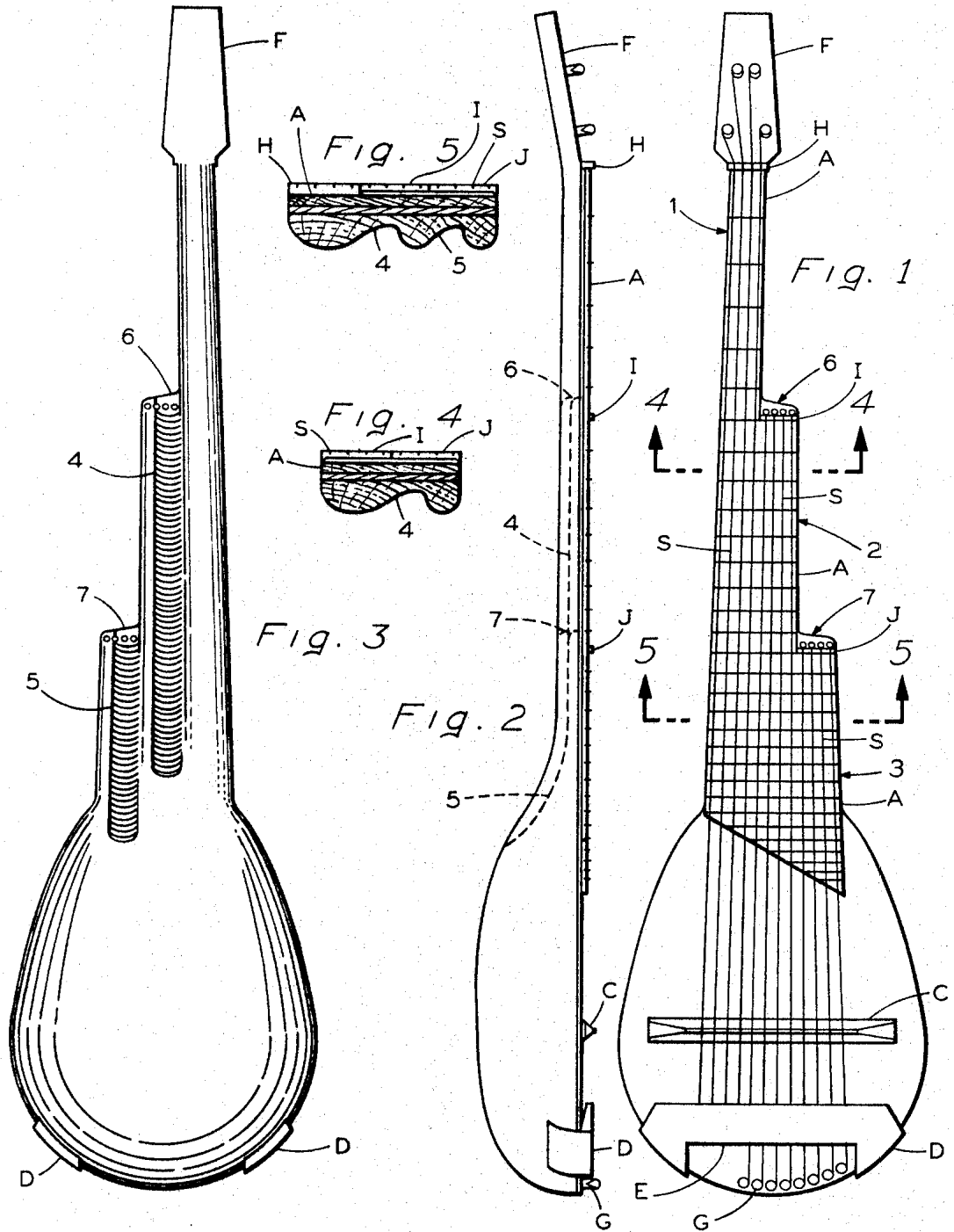
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W. J. PELENSKY

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MULTIRANGE PRETTED GUITAR TYPE INSTRUMENT

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INVENTOR
WALTER J. PELENSKY

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**MULTIRANGE FRETTED GUITAR
TYPE INSTRUMENT**
Walter J. Pelensky, 19C Manheim Gardens,
Philadelphia, Pa. 19144
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ABSTRACT OF THE DISCLOSURE

This application discloses a stringed musical instrument having a sounding body with a neck extending therefrom which has a plurality of fretted fingerboard extensions of different lengths with a string group of different tuning range for each fingerboard length; and with a thumb groove on the back of the fingerboard neck between each pair of adjacent sets of strings; a string group of shorter length being located on one side only of a longer string group and having tuning means at the rear end to leave the outer fingerboard attached end of a shorter group of strings clear for hand movements when the hand extends from the side having the longest group of strings.

This invention relates generally to stringed musical instruments and more specifically to a novel arrangement and construction of such instruments having advantages over previously known instruments as will be developed hereinafter.

This invention particularly pertains to the application of multirange tuning to any standard type of stringed instrument, within the guitar, lute or kobza class.

All standard types of stringed instruments, such as: the guitar, lute or kobza have a single fixed fingerboard and matching neck area, tuned only for one range of operation, that is: contrabass, bass, tenor, alto, soprano, but no combination of these in a completely chromatic system.

The orbo type lutes have multi-fretted bass strings, but only a single (nut) fretting for the contrabass strings. The Ukrainian kobza has standard fretting of its bass strings and only single fretting of its treble strings, mounted across the right side of the body deck. Both of these systems contain only a partially chromatic range and a partially achromatic or at best diatonic.

While the multi-stringed Ukrainian bandura, though it has separately tuned treble and bass sections, requires many strings for its single fretted tuning, which is usually tuned either achromatically or diatonically. A fully chromatic bandura requires still more strings than its usual 34-36 strings and the use of involved mechanical tone changers. As a result, the Ukrainian bandura acquires a large unwieldy body. Other variants have been tried for multirange tuning, as with a cumbersome double separated neck arrangement in a single resonator body.

It is an object of the present invention to provide a stringed instrument which results in new and novel concepts of multirange tuning and which obviates drawbacks of previously utilized constructions.

The multirange tuning, according to this invention, can be applied to any standard type of stringed instrument in the guitar, lute or kobza class, which has the standard peghead, neck and associated fingerboard, resonator body, bridge and tailpiece. According to the present system of construction, any stringed instrument of the guitar, lute or kobza class can be constructed or be reconstructed for dual or triple range tuning and based on the use of a common-combined type of fretting on a common-combined fingerboard, and by the use of special grooves or channels for the proper firm gripping of the neck area with the thumb, so that the instrument still retains the ability to

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reach and stop all strings within the multirange fretted area of the entire new fingerboard.

This concept of dual or triple range fingerboard, and associated special gripping grooves, can be applied to any standard type of resonator body, whether it is oval, pear-shaped or round; or whether the resonator body is hollowed from solid wood, simulated solid wood, or formed (bent to shape) of glued panels or formed of molded plastic.

As one example of an application of this invention, a triplex designed instrument can be tuned in the following manner: contrabass strings tuned as a banjo or cittern (4-6 strings), tenor strings tuned as a guitar (4-6 strings) or tuned as a kobza (8 strings) and the trebles (high range) tuned in the manner of any instrument in the mandolin or mandola class.

Another example of this invention permits a dual-range stringed instrument to be tuned in the following manner: the contrabass or the bass strings (choice) can be tuned in the manner of a banjo, guitar or kobza (4-5-6-8 strings), while the treble (high range) is tuned as a mandolin or mandola. It is accordingly clearly evident that two or three new instruments are possible, mounted on a single resonator body, within the overall application of the present invention.

Other and additional objects and advantages of the present invention will be more readily apparent from the following detailed description of an embodiment when taken together with the accompanying drawings in which:

FIG. 1 is a front plan view of a stringed instrument embodying the basic principles of the present invention;

FIG. 2 is a side view of the instrument of FIG. 1;

FIG. 3 is a rear plan view of the instrument of FIG. 1, embodying a subsidiary principle.

FIG. 4 is a sectional view taken on line 4-4 of FIG. 1; and

FIG. 5 is a sectional view taken on line 5-5 of FIG. 1.

Referring now to the drawings, showing an instrument according to the present invention, only such parts as are necessary to an understanding thereof will be described in detail since the remaining structure is known in the field and can be considered as standard.

FIGURE 1 shows a new triplex-fretted fingerboard construction A, of three combined tuning ranges: i.e. 1—a low (contrabass or bass), 2—a medium (tenor) and 3—a high (alto or soprano), capable of application to any stringed instrument in the guitar, lute or kobza class. This triplex fingerboard arrangement, A, is symmetrically mounted over the upper body area. Another asymmetrical arrangement of the combined triplex fingerboard can also be made functional, by retaining the conventional body centerline position for the contrabass or bass strings, and offsetting the mid-range and high-range fingerboards and associated strings to the right of this centered contrabass or bass fingerboard.

This new type of combined multirange fingerboard can also be applied to a dual-fretted fingerboard arrangement of two chromatic tuning ranges: including only 1, a low (contrabass or bass) and 3, a high (alto or soprano). As depicted in FIGURE 1, the three sets of strings, S, for the triple range tuning utilize a common bridge, C, and a common tailpiece, D.

In the triplex string arrangement, the contrabass strings have the standard fixed attachment at the tailpiece generally indicated at E and adjustability at the standard type peghead, F, and nut H, using the conventional guitar, banjo, or autoharp adjusting pegs. The mid-range peghead, 6 and the high-range peghead, 7, are small and fixed (offset from the contrabass fingerboard in steps) at the upper ends of the new combined fingerboard. The respective adjustment of these two sets of strings is accomplished through tuning pegs G, located at the extreme

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lower end of the resonator body, just past the tailpiece D. Here the tailpiece functions only as a guide for the tenor and alto strings. In the dual-range tuning, the bass or contrabass strings are adjusted at the conventional upper peghead, having adjustable tuning pegs and fixed at the tailpiece. And the soprano or alto strings are attached at the upper end of the fingerboard to small fixed peghead 7, having its respective nut, J, leaving the outer fingerboard attached end of the shorter group of strings free for hand movements thereover when the hand extends from the side having the longest group of strings.

In FIGURE 2 showing a typical side view of the new combined neck, there is shown in dotted outline the special new gripping grooves, 4, 5, which are provided in order to be able to span all of the fretted areas of the new combined range fingerboard with complete finger accessibility, whether it be in the dual or triple area of the combined fingerboard.

In FIGURE 3 the rear view of a new type kobza-guitar instrument is shown, with the location and length of the thumb gripping grooves 4, 5 extending from the reverse side of the two subsidiary fixed string attachment pegheads 6, 7 on the new triplex neck, and extending partially as required into the reverse side of the upper body area.

FIGURE 4 shows a sectional area between a typical dual-fretted fingerboard and dual-neck area, and showing in detail the singular thumb gripping groove or channel 4.

FIGURE 5 shows a sectional area between a typical triplex-fretted fingerboard and respective triplex-neck area, with the arrangement of the dual-thumb gripping grooves of channels 4, 5.

Special attention is to be noted, in that the small subsidiary fixed pegheads 6, 7 are shown with their respective nuts, I, J, but a simple modification of this is possible by extending the fret wire from the adjacent fingerboard area of the lower range into the higher range fingerboard area as a simulated nut.

Manifestly, minor modifications and changes can be effected in details of construction without departing from the spirit and scope of the present invention as defined in and limited solely by the appended claims.

I claim:

1. A multirange tuning stringed instrument, comprising in combination, a sounding body, a fingerboard neck extending from said sounding body, a first set of long

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strings extending from the sounding body along one side of said neck, leaving the neck clear for hand movement along the long side edge, at least one set of shorter strings extending from the sounding body along the neck on the side away from the clear long side edge, and frets on said neck for the long and shorter sets of strings, the frets for a shorter set of strings extending across the neck to serve the longer set of strings.

2. A multirange tuning stringed instrument as set forth in claim 1, in which the strings of a shorter set are secured on the fingerboard neck by simple anchorage means permitting ready passage of the hand thereover, and provided with tuning means at the sounding body attached end.

3. A multirange tuning stringed instrument as set forth in claim 1, wherein said neck on its back is provided with longitudinal thumb-engaging formation between adjacent sets of strings.

4. A multirange tuning stringed instrument as set forth in claim 1, wherein there is more than one set of shorter strings, and wherein a longitudinal thumb-engaging formation is provided on the back of the neck between all pairs of strings.

5. A multirange tuning stringed instrument as set forth in claim 2, wherein the neck on the rear is provided with a thumb-engaging groove between each adjacent pair of string sets.

References Cited

UNITED STATES PATENTS

652,353	6/1900	Edgren	84—314
871,158	11/1907	Babbitt	84—269
1,183,369	5/1916	Gardie	84—293 XR
1,684,467	9/1928	Boothe	84—267 XR
2,023,358	12/1935	Porter	84—269
2,816,469	12/1957	Gossom	84—293

FOREIGN PATENTS

575,158	4/1933	Germany.
823,841	12/1951	Germany.
15,450	1888	Great Britain.
324,070	1/1930	Great Britain.
738,238	10/1955	Great Britain.

ROBERT S. WARD JR., Primary Examiner.