

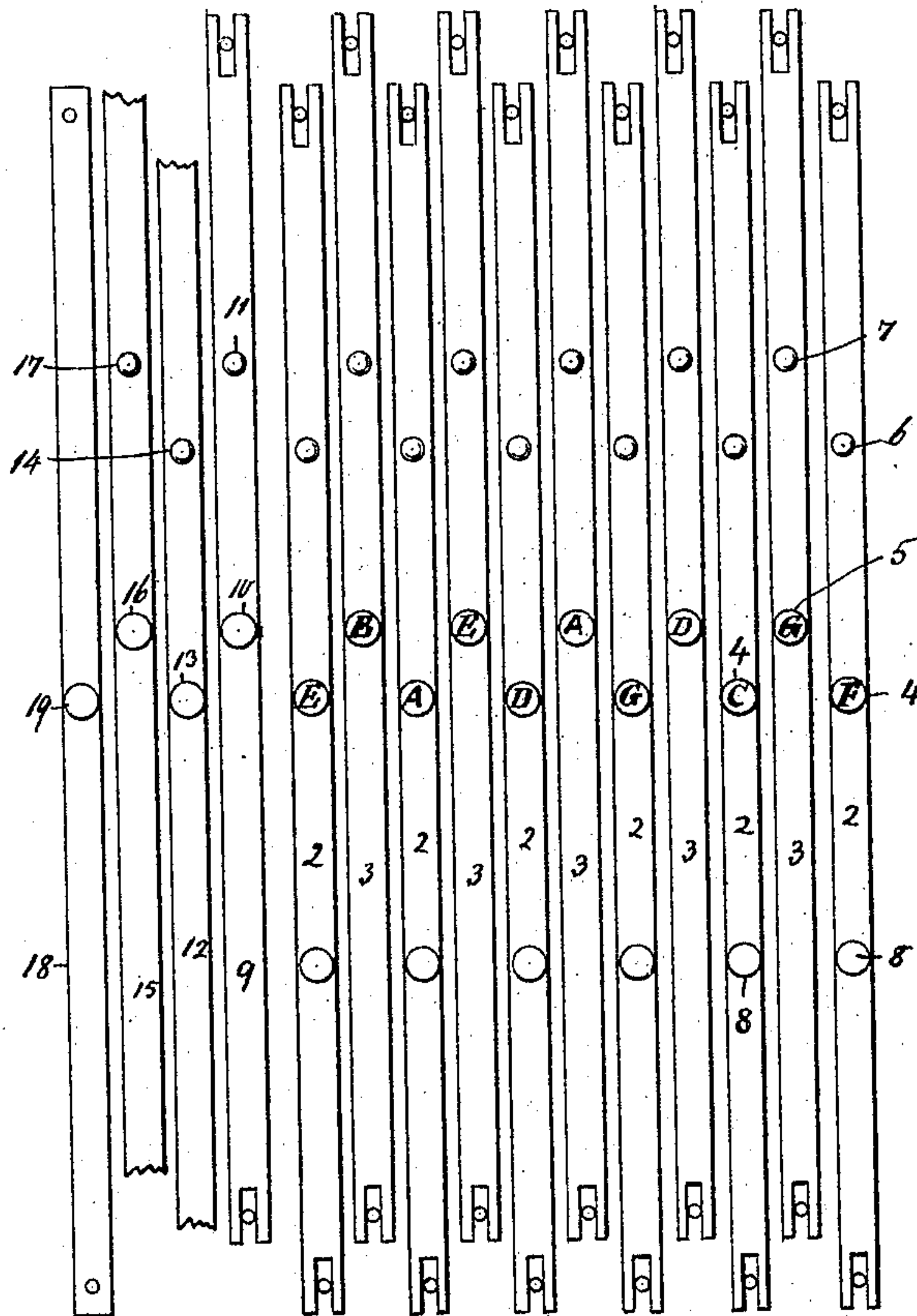
(No Model.)

R. DOLGE.  
HARP.

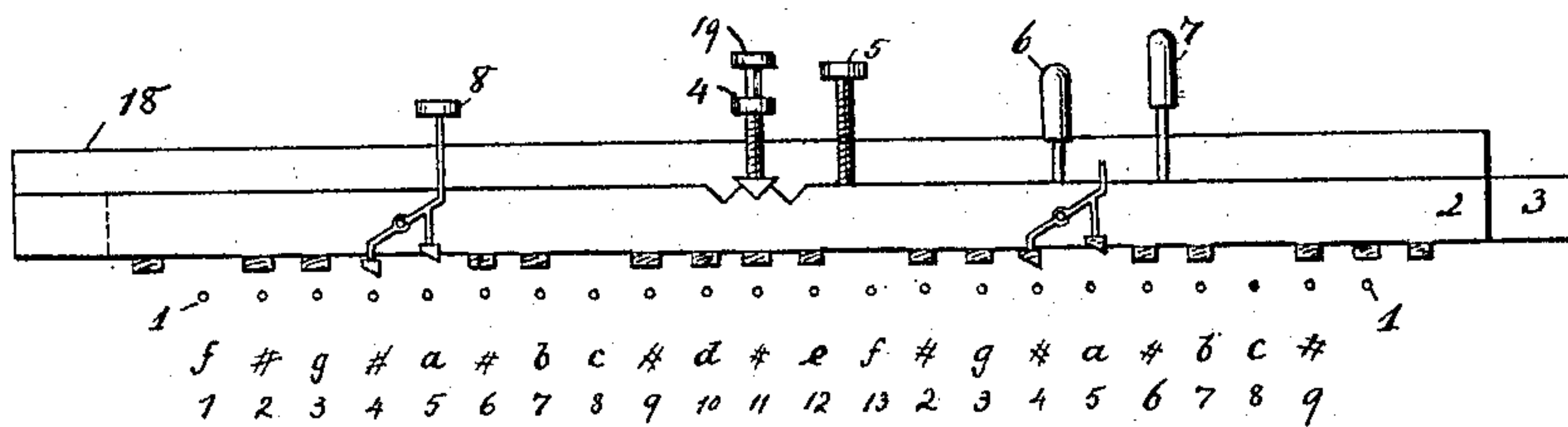
No. 574,309.

Patented Dec. 29, 1896.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## HARP.

SPECIFICATION forming part of Letters Patent No. 574,309, dated December 29, 1896.

Application filed September 26, 1895. Serial No. 563,775. (No model.)

*To all whom it may concern:*

Be it known that I, RUDOLF DOLGE, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Harps, of which the following is a specification.

This invention relates to musical instruments, as harps, citherns, or the like, which are provided with manuals, such as bars, shields, plates, or covers, adapted to contact with, cut out, leave open, or deaden, or leave unsounded, certain strings; and the object of the invention is to facilitate the operation or manipulation of said manuals, and to this end the invention resides in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a plan view of manuals, which can be either bars arranged individually or as shields, plates, or covers. Fig. 2 is a side elevation of Fig. 1.

The harp or instrument has strings 1, and the bars or manuals 2 and 3 are adapted to deaden or leave unsounded certain of these strings as known to produce chords. The bars or manuals 2 have the depressing or actuating handles 4 and the bars 3 the depressing or actuating handles 5.

Each bar or manual 3, with the two adjacent bars or manuals 2, may be considered as forming a group of three bars or manuals, the handle 5 of the center bar or manual being placed at a higher level than that of the handles 4. If, in playing, the middle finger is placed upon a handle 5 and the index and third fingers, respectively, on a handle 4, then by having handle 5 somewhat higher than and out of alinement with handles 4 said handle 5 is in convenient reach of the middle finger, so that the instrument can be played with ease or without excessively fatiguing the player.

The bars or manuals 2 and 3 can be made shiftable, as known, suitable shifting handles 6 and 7 enabling the shifting to be effected. The bars or manuals 2 are also shown with handles 8, conveniently called "changing-handles," since, as presently shown, they can serve to change a major to a minor chord, or

conversely, or they might be used, if desired, for producing augmented chords or introducing passing notes, as in the bass.

Suppose the bar or manual 2 having its handle 4 designated by F to be in such position or adapted for such contact that when said handle 4 is depressed or actuated it produces or leaves open the chord F A C and when handles 4 and 8 are actuated it produces or leaves open the chord F A-flat C. Also suppose the bar or manual 2 having its handle 4 designated by C to be in such position or adapted for such contact that when its handle 4 is actuated the chord C E G is produced or left open and when its handles 4 and 8 are depressed the chord C E-flat G is produced or left open. Also suppose the bar or manual 3 having its handle 5 designated by G to be arranged for the production of chord G B D F on the actuation of handle 5. The actuation of handle 4 C then causes the chord C E G, or the tonic or common chord in the key or scale of C-major. The actuation of handle 4 F produces the chord F A C, being the subdominant chord in the scale or key of C-major. The actuation of handle 5 G produces the chord G B D F, or the dominant seventh chord for the key of C. The action of the handle 4 C and its minor handle 8 causes the chord C E-flat G, or the tonic or common chord in scale or key of C-minor, while the actuation of handle 4 F with its minor handle 8 causes the chord F A-flat C, or the subdominant in the scale or key of C-minor. The bar or manual 3 of handle G does not need a changing-handle like handle 8 of a bar or manual 2, since the dominant seventh chord remains the same for both major and minor scales or keys.

It is thus noticed that the bar or manual 2 F can, for example, serve not only for producing the common chord F A C of the tonic F, but also the subdominant chord F A C of the tonic C. Similarly the bar or manual 2 C can, for example, serve not only for producing the common chord C E G of the key of C, but also the subdominant chord C E G of the key of G, the common chord G B D of this tonic G being produced by actuating the next succeeding bar or manual 2 on the left, namely, the bar or manual 2 G. In other



words, if the first bar or manual 2 on the right has the tonic F the next succeeding bar or manual 2 on the left is arranged for C, which is the fifth above, or the dominant of the tonic F, so that these bars or manuals 2, conveniently called "major" bars, or major bars with minor changes 8, are arranged in a series of fifths, any one of said bars or manuals 2 having the next succeeding bar or manual 2 on its left adapted for the sounding of the common chord of the dominant of the tonic of the preceding bar. This series of fifths is continued along all the bars or manuals—C, as just noticed, being the fifth of F, G being the fifth of C, D the fifth of G, and so on; or, reading from left to right, G is the fourth above D, C is the fourth above G, F is the fourth above C.

Of course it is understood that in practice with shiftable bars or manuals the scale-letters are not placed on the handles 4 and 5, since, for example, the bar or manual 2 of handle F can be shifted from tonic F to another tonic, said letters being here used to facilitate the description. It may be mentioned, however, that if the bars 2 and 3 are stationary or not individually shiftable the scale-letters can be conveniently placed on the handles or on the plate, shield, or cover for proper designation, as, for example, to facilitate beginners in mastering or learning the method or arrangement or for studying elementary harmony.

The bar or manual 9, having actuating or depressing handle 10 and shifting handle 11, can be called a "diminished seventh bar," being adapted for the sounding or leaving free of the diminished seventh of any tonic, said bar 9 being shiftable, so as to obtain any diminished seventh required.

The bar or manual 12, with depressing or actuating handle 13 and shifting handle 14, and the bar or manual 15, with actuating-handle 16 and shifting handle 17, are diatonic major-scale and diatonic minor-scale bars. The strings of the instrument being tuned or strung in chromatic intervals, and taking any desired tonic, one of the bars 12 and 15 when actuated will, for example, deaden or leave unsounded the second, fourth, seventh, ninth, and eleventh semitones, or, in other words, will produce the diatonic major scale, while the actuation of the other of said bars 12 and 15 will deaden or leave unsounded the second, fifth, seventh, tenth, and twelfth semitones, or, in other words, will produce the diatonic minor scale. The bars 12 and 15 are shiftable to any desired tonic, as readily understood.

The bar or manual 18, with actuating-handle 19, is a general damper for silencing all strings and is conveniently placed so that its handle lies to the left, as shown, to enable the small finger of the left hand to be readily used for the manipulation of said damper. This general damper 18 need not be shiftable. The surface of the general damper or bar 18

which is engaged by the performer in depressing the same is located at a higher lever than the other bars or manuals, so that it is in convenient position to be actuated not only by a finger, but also by the palm, wrist, or arm in case the fingers should be engaged or not in convenient reaching distance.

The handles 4 and 5 are conveniently adjustable in height, so that the handles 5 can be raised above the handles 4, as stated. By making the stems of the handles 4 and 5 screw-threaded said handles can be readily adjusted higher or lower. The handles if differently colored will be readily distinguishable from one another. The change-handles 8 can also be made adjustable in height.

There being but three diminished seventh chords it may be noted that but one diminished seventh bar or manual, as 9, shiftable to three positions, is required.

Of course it is understood that while dampers or damper-bars are shown in the drawings the invention is equally well adapted for bars or manuals having hammers, picks, or other devices for sounding or contacting with or for deadening, leaving open, or cutting out strings in instruments of this class.

The invention is applicable not only to individually-shiftable bars or manuals, but also to ordinary non-shiftable bars, in which case the number of groups of three would have to be increased, or said invention is applicable to bars or manuals carried by or made in form of a shiftable or non-shiftable shield, plate, or cover, or a manual such as a shield, plate, or cover could be arranged with the devices for sounding, leaving open, or contacting, arranged or grouped as above described.

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

1. A stringed musical instrument having manuals or bars with depressing or actuating handles arranged in a group of three, the center handle being located higher than the outer handles of the group substantially as described.

2. A stringed musical instrument having manuals or bars with depressing or actuating handles arranged in a group of three, the center handle being located higher than and out of alinement with the outer handles of the group substantially as described.

3. A stringed musical instrument having shiftable manuals or bars with depressing or actuating handles arranged in a group of three, the center handle being located higher than the outer handles of the group substantially as described.

4. A stringed musical instrument having manuals or bars with depressing or actuating handles arranged in a group of three, the center handle being located higher than the outer handles of the group, and changing-handles for the bars substantially as described.

5. A stringed musical instrument having manuals or bars with depressing or actuating handles arranged in a group of three, the



center handle being located higher than the outer handles of the group, and said outer bars being provided with change-handles substantially as described.

5 6. A stringed musical instrument having manuals or bars with depressing or actuating handles arranged in a group of three, the center handle being located higher than and out of alinement with the outer handles of the group, and said outer bars being provided  
10 with change-handles substantially as described.

7. A stringed musical instrument having shiftable manuals or bars with depressing or  
15 actuating handles arranged in a group of three, the center handle being located higher than the outer handles of the group, and changing-handles for the bars substantially as described.

20 8. A stringed musical instrument provided with a group of major manuals or bars, and with dominant seventh manuals or bars, said major bars being arranged in a relation of fifths and fourths and provided with minor  
25 changes, the depressing or actuating handles of said major bars or manuals being placed below the level of the handles of the dominant seventh bars substantially as described.

9. A stringed musical instrument provided  
30 with bars or manuals adapted for silencing or leaving dead certain strings, combined with a general damper bar or manual for silencing all the strings, said general damper bar or manual being provided with an actuated surface located above the level of the other bars  
35 or manuals substantially as described.

10. A stringed musical instrument provided

with bars or manuals adapted for silencing or leaving dead certain strings, combined with a general damper bar or manual for silencing  
40 all the strings, said general damper bar or manual being located at the left of and above the level of the other bars substantially as described.

11. In a stringed musical instrument a dam- 45 per bar or bars provided with a plurality of depressing or actuating handles one of which is adjustable in height, substantially as described.

12. A damper bar or manual provided with  
50 a change-handle made adjustable in height substantially as described.

13. A stringed musical instrument having a group of three manuals or bars for producing dominant, subdominant and dominant  
55 seventh chords, the dominant seventh manual being located between the dominant and subdominant manuals substantially as described.

14. A stringed musical instrument having  
60 a group of three shiftable manuals or bars for producing dominant, subdominant, and dominant seventh chords, the dominant seventh manual being located between the dominant and subdominant manuals substantially as  
65 described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

RUDOLF DOLGE.

Witnesses:

WM. C. HAUFF,

E. F. KASTENHUBER.