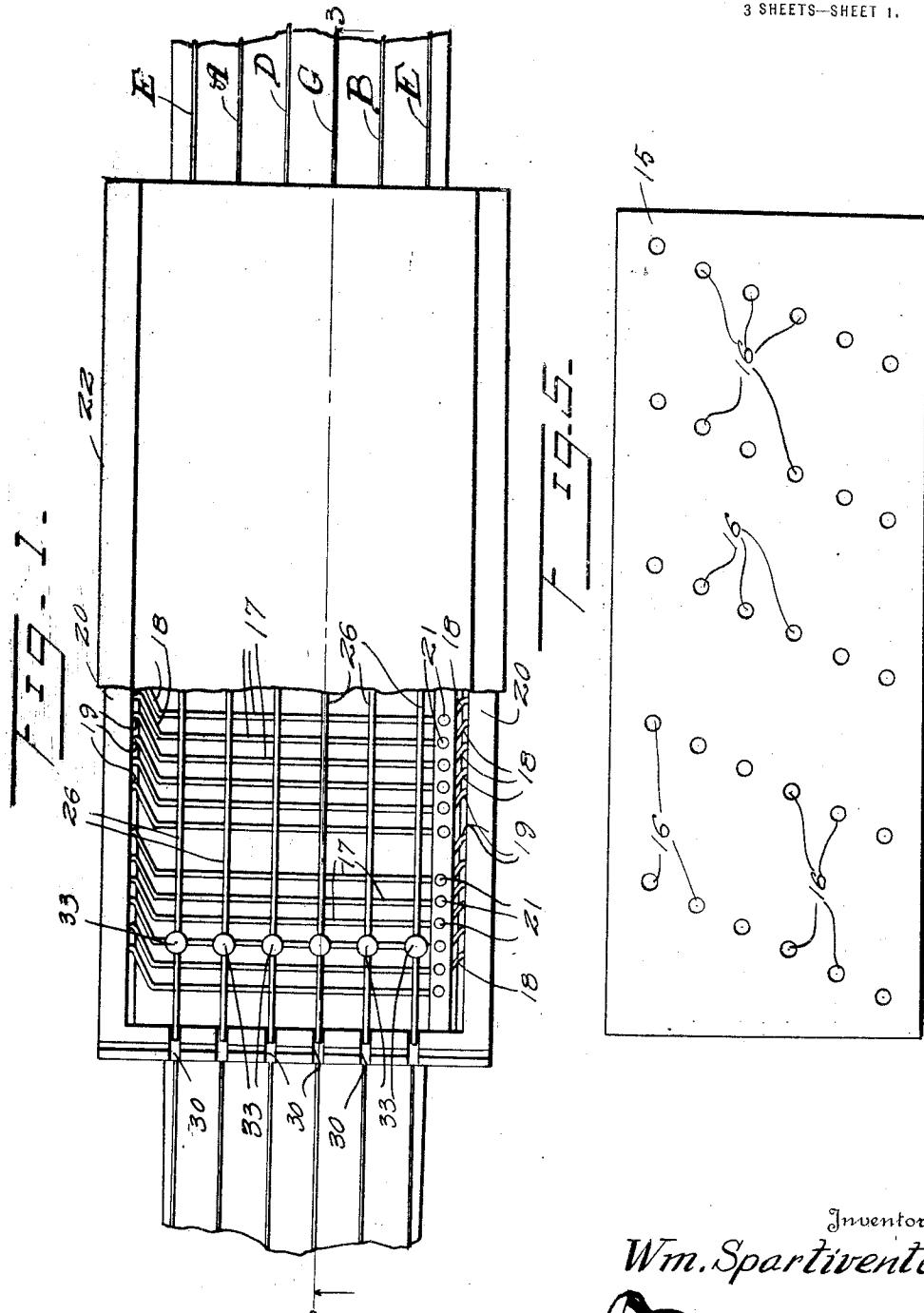


**W. SPARTIVENTO,  
FINGERING ATTACHMENT FOR GUITARS.  
APPLICATION FILED SEPT. 27, 1921.**

**1,437,026.**

Patented Nov. 28, 1922.

3 SHEETS—SHEET 1.



Inventor

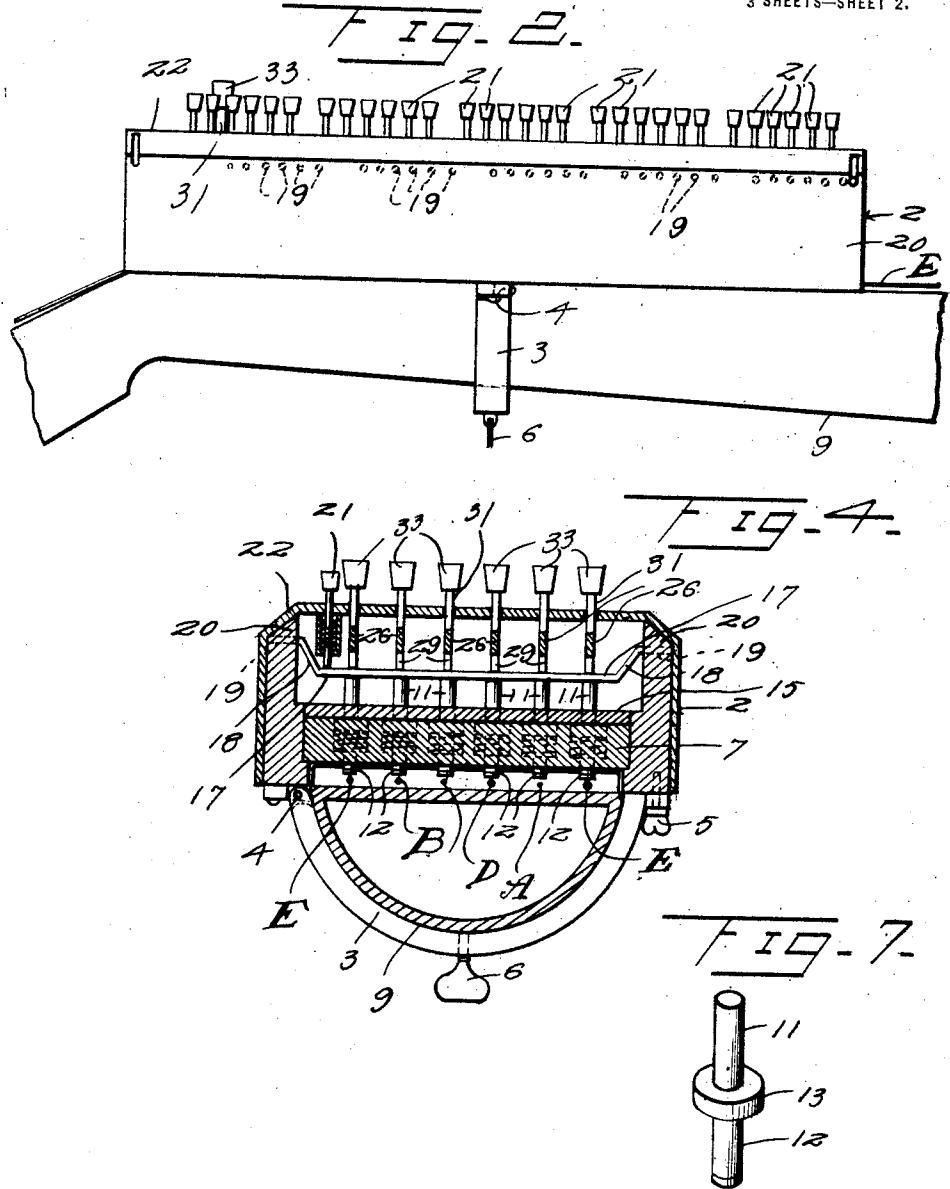
By A. Randolph Jr. Attorney

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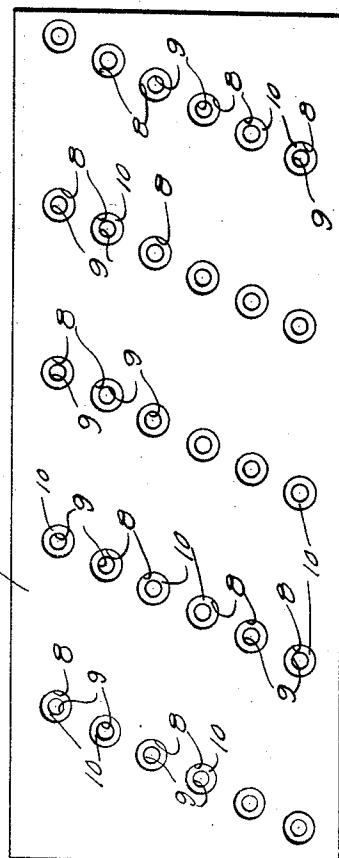
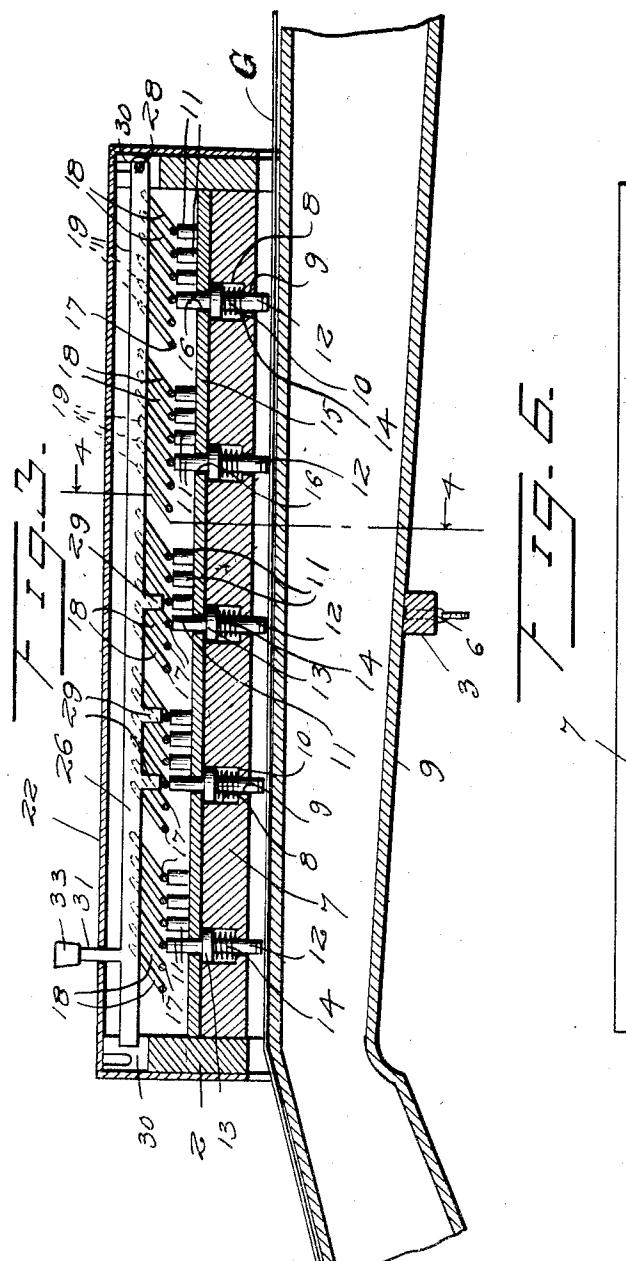
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3 SHEETS—SHEET 3



Inventor  
Wm. Spartivento

By  Attorney

## UNITED STATES PATENT OFFICE.

WILLIAM SPARTIVENTO, OF BUFFALO, NEW YORK.

## FINGERING ATTACHMENT FOR GUITARS.

Application filed September 27, 1921. Serial No. 503,562.

*To all whom it may concern:*

Be it known that I, WILLIAM SPARTIVENTO, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in a Fingering Attachment for Guitars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a fingering attachment for guitars to facilitate the playing of chords by depressing a single key or button.

One important object is to generally improve, simplify and render more efficient the construction disclosed in my co-pending application Serial Number 434,898.

I particularly aim to reduce the number of parts employed in the device of said application and one enabling me to dispense with the angle levers used therein.

Additional objects and advantages will appear from the description hereinafter following taken in connection with accompanying drawings illustrating a practical embodiment thereof.

In said drawings:—

Figure 1 is a plan view showing my attachment applied to a guitar, the latter being fragmentarily shown;

Figure 2 is a side elevation of the parts of Figure 1;

Figure 3 is a longitudinal sectional view on the line 3—3 of Figure 1;

Figure 4 is a cross sectional view on the line 4—4 of Figure 3;

Figure 5 is a detail plan view of the plunger securing plate;

Figure 6 is a detail plan view of the plunger mounting plate; and

Figure 7 is a detail perspective view of the type of plunger employed.

Referring specifically to the drawings, a guitar is conventionally shown fragmentarily at 9, its strings being designated, E, A, D, G, B and E, which also indicates the pitch of their open notes, in a practical case.

In carrying out my improvement, a suitable casing 2, preferably rectangular in shape with its upper side edges curved or beveled, is employed and adapted to be secured rigidly to the guitar as by means of a clamp arm 3 pivoted to the casing at 4, and asso-

ciated with a fastening screw 5 passable through the arm and into the casing. A binding screw 6 may pass through the clamp 3 as shown in Figure 5.

Suitably secured within the casing is a 60 mounting board or base 7, whose lower surface is raised above the strings. This base 7 has rows of recesses 8, from which lead openings 9 forming constricted necks and shoulders 10. Each row of recesses 8 is 65 diagonally disposed as shown in the drawings.

A plunger as detailed in Figure 7 is disposed in each of the recesses 8. Each plunger has an upper and lower aligned stem 11 70 and 12 intermediate which a projection 13 is formed, which may assume the shape of a lateral annular flange. The flange 13 is substantially of the same diameter as the recesses 8 and said flanges are disposed in said 75 recesses with the stems 12 passing through the openings 9. Within each recess, an expansive coil spring 14 is disposed, encircling stems 12, bearing against the undersurface of the flanges 13 and the shoulder 9, whereby 80 the plungers are normally retracted, that is held spaced above the strings of the instrument.

Over fifty keys or combinations are preferably provided so as to give all of the tones 85 required on the guitar, but in the main series about thirty-five are required. Any number, of course, may be used. The number of rows of plungers may be increased in which instance I preferably increase the 90 size of the instrument and component parts generally.

A securing plate 15 is provided being fastened in any suitable manner to the base 7 after the plungers have been disposed 95 therein. Base 15 has a plurality of openings 16 therethrough, disposed in alignment with the recesses 8. Stems 11 extend through the recesses 16 and project above the same as shown. It will be realized that the plungers 100 are vertically slidable in the recesses 8 and the openings 9 and 16 against the tension of the springs 14. Springs 14 urge the flanges 13 into contact with the under surface of the plate 15.

Disposed transversely of the casing 1 are a plurality of rocking bars 17, normally angularly disposed as shown and resting on appropriate stems 11 of the plungers. These locking bars have arms 18 which terminate 110

in outwardly extending trunnions 19 which are journaled in the side walls of the casing 1, which walls are designated 20.

Rocking bars 20 may be depressed, to accordingly depress the plungers individually, by actuation of plungers 21, slidably mounted in the cover of the casing 1, designated 22, and in cylinders 23 depending therefrom, and normally urged away from the strings 10 and active by means of a spring 24 within the cylinders and engaging an abutment 25 on plungers 21.

The cover 22 is preferably in a single piece of metal, nickel plated, and conforms 15 to the exterior shape of the casing so as to cover all holes or rough material in order to present an attractive and pleasing appearance.

The plungers are preferably operated in 20 multiple, so as to enable chords to be played by depression of a single lever or actuating member. To this end, actuating members in the form of elongated levers 26 are disposed within the casing 1, being pivoted to 25 the front wall 27 of said casing as at 28. Each lever has one or more depending lugs or projections 29 which rest on and engage appropriate locking bars 17 as shown in Figure 3.

30 To enable manipulation of the lever 26, the end walls of the casing 2 are cut away as at 30 and a stem 31 rises from each lever adjacent the free end, passing through openings 32 in the cover walls 22, and having 35 their upper extremities provided with buttons or caps 33.

Attention is called to the fact that the lower ends of the lugs 29 are disposed at an angle, reference to the fulcrum 28, so that 40 regardless of the distance of the lugs 29 from the pivot 28, they will all actuate the plungers to the same extent, throughout the length of the levers 26.

It will be realized, that in operation, instead of depressing the plungers 21 or equivalent means to actuate the string engaging 45 plungers independently, that the keys 33 are depressed so that upon each depression, a chord will be played, as a result of the depression of a plurality of the plungers.

After depression of the plungers against the strings and release thereof, the springs 14 will restore the plungers and the rocking levers 17 and levers 26 to normal position.

Changes may be made within the spirit 55 and scope.

I claim as my invention:

1. A fingering attachment for string instruments having plungers to engage the strings, an operating lever, movable operating members resting on the plungers, rocking bars pivoted to the lever and directly engageable with said members, and springs to normally maintain the plungers out of contact with the strings. 65

2. A fingering attachment for string instruments having plungers to engage the strings, rocker bars resting directly on the plungers, and an actuating lever directly engageable with said rocker bars. 70

3. A fingering attachment for stringed instruments having plungers to engage the strings, rocker bars resting on the plungers, a plurality of depressible levers, and projections on said levers directly engageable 75 with said rocker bars.

4. A fingering attachment for stringed instruments consisting of a casing, a base therein provided with recesses, said base having openings smaller than the recesses 80 and leading therefrom to provide shoulders, a closure plate for the recesses having openings therethrough, plungers having stems slidable in said openings, an abutment on the plungers occupying the recesses, springs 85 surrounding the stems of the plungers within the recesses and engaging said abutment and said shoulders, said plungers extending above said abutment plates, rocker bars journaled to the casing and resting on said plungers above the abutment plates, a plurality of depressible levers, and projections on 90 said levers directly engageable with said rocker bars. 95

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM SPARTIVENTO.

Witnesses:

JOSEPH GIGANTE,  
JOHN M. A. SORRENTINO.