(No Model.) 2 Sheets—Sheet 1.

J. L. KELMAN.

ATTACHMENT FOR STRINGED MUSICAL INSTRUMENTS.

No. 589,658. Patented Sept. 7, 1897.

Fig 1.

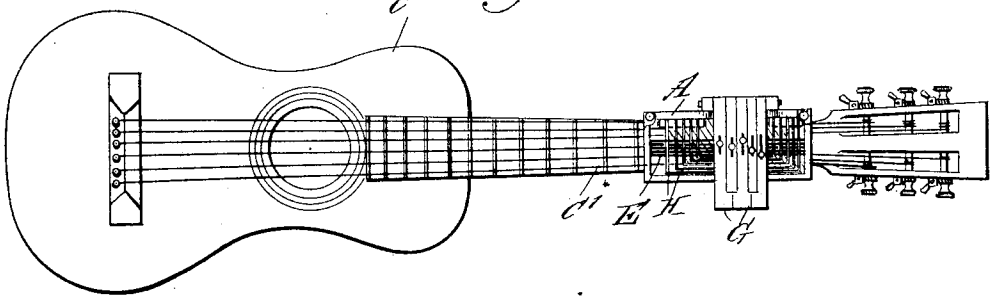


Fig 2.

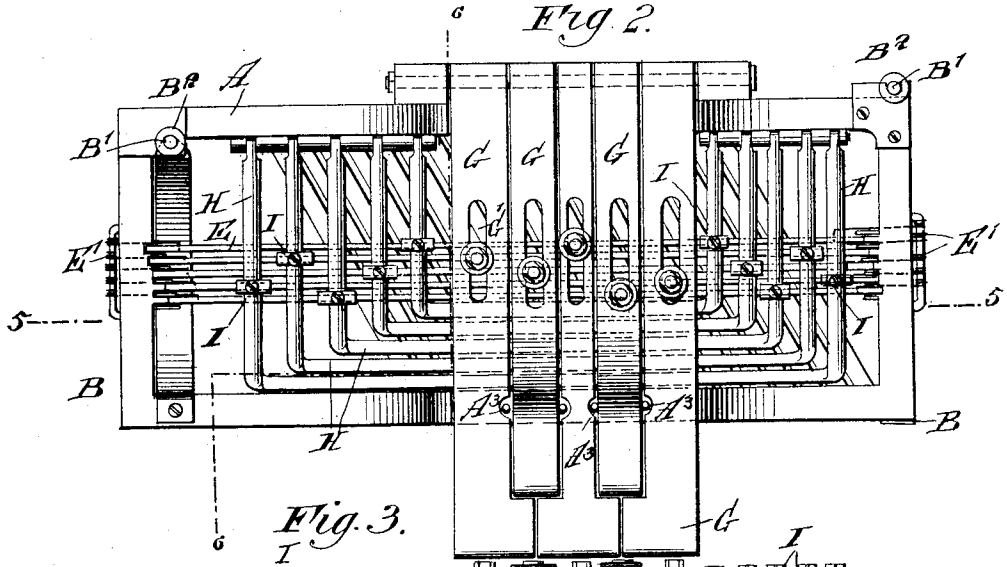


Fig. 3.

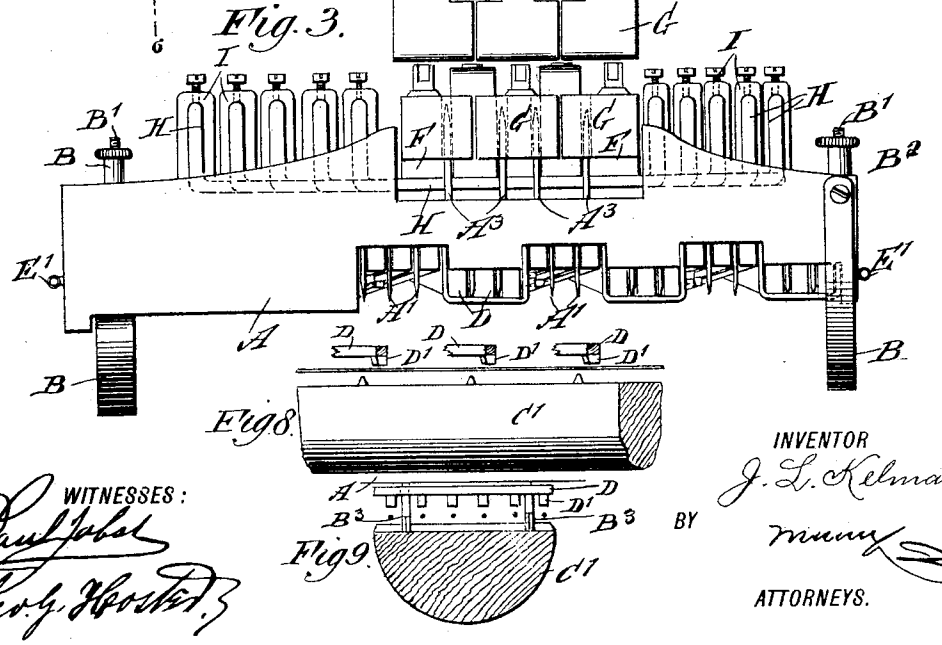


Fig 8.

Fig 9.

WITNESSES:

Paul Sobel

Rud. J. Hoosteg

INVENTOR

J. L. Kelman.

BY

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

J. L. KELMAN.

ATTACHMENT FOR STRINGED MUSICAL INSTRUMENTS.

No. 589,658. Patented Sept. 7, 1897.

Fig. 4

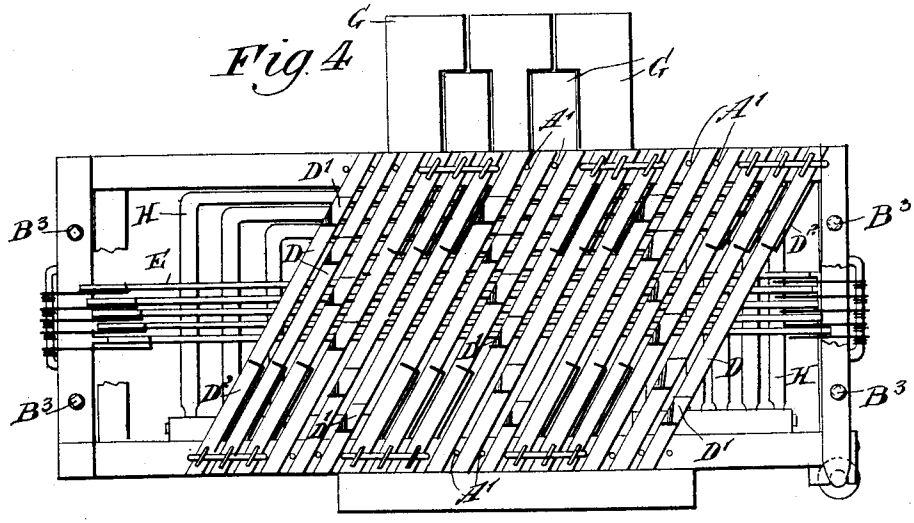


Fig. 5.

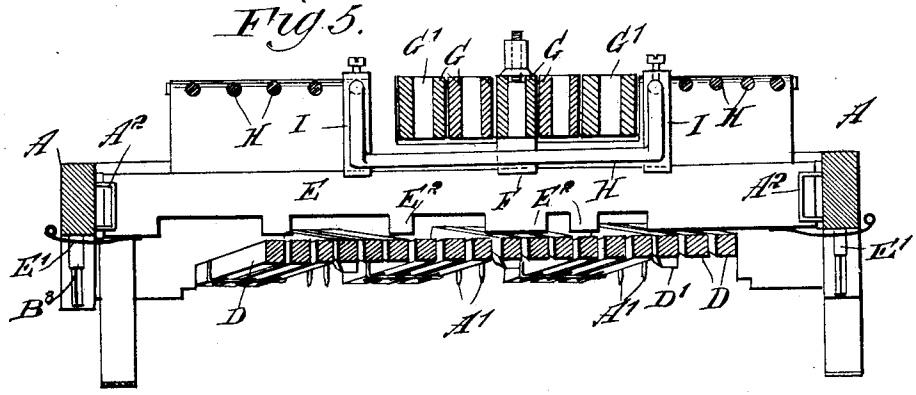
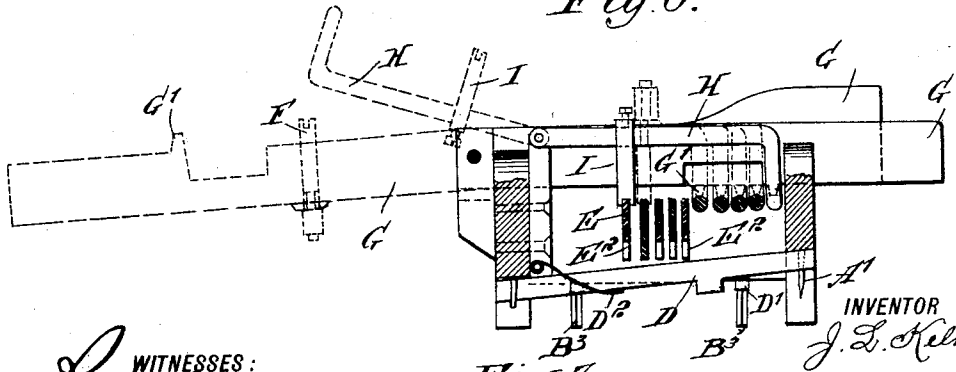


Fig. 6.

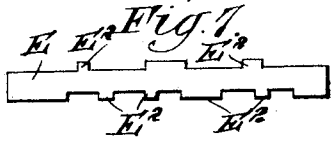


WITNESSES:

Paul Jahad

Theo. G. Hoster, Jr.

Fig. 7.



INVENTOR

J. L. Kelman.

BY

Munn & Co

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JUSTUS LEONARD KELMAN, OF MAROA, ILLINOIS.

ATTACHMENT FOR STRINGED MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 589,658, dated September 7, 1897.

Application filed November 25, 1896. Serial No. 613,415. (No model.)

To all whom it may concern:

Be it known that I, JUSTUS LEONARD KELMAN, of Maroa, in the county of Macon and State of Illinois, have invented a new and Improved Attachment for Stringed Musical Instruments, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved attachment for stringed musical instruments, such as guitars, mandolins, banjos, and the like, the attachment being arranged to permit the performer to conveniently press a number of strings and readily sound a chord when the corresponding strings are picked.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a reduced plan view of the improvement as applied on a guitar. Fig. 2 is an enlarged plan view of the improvement. Fig. 3 is a front elevation of the same. Fig. 4 is an inverted plan view of the same. Fig. 5 is a longitudinal sectional elevation of the improvement on the line 5 5 of Fig. 2. Fig. 6 is a transverse section of the same on the line 6 6 of Fig. 2, and Fig. 7 is a side elevation of a modified construction of one of the interchangeable bars. Fig. 8 is a side elevation of part of the finger-board, the pressers over the strings being shown in section; and Fig. 9 is a transverse section of the same.

The attachment is provided with a suitably-constructed frame A, having at its ends flexible bands B, adapted to be passed around the under side of the finger-board C′ of a musical instrument C, so as to secure the attachment to the top of the finger-board, as indicated in Fig. 1. One end of each band is fastened to the frame A, and the other end is formed into a thread B′, engaged by a nut B^2, abutting on the top of the frame A and serving to draw the band B tight, so as to securely hold the frame in position. The under side of the frame is provided at its ends with adjustable lugs or pins B^3, adapted to rest on the top of the finger-board C′ between the strings, (see Fig. 9,) so as not to interfere with sounding the strings in the usual manner.

On the under side of the frame A are arranged sets of pressers D, each set consisting of as many pressers as there are strings on the instrument for producing chords. Each presser D is provided with a downwardly-extending lug or projection D′, adapted to engage the corresponding string, the lugs D′ for each of the pressers D extending transversely between two frets of the finger-board, as shown in Figs. 8 and 9.

As shown in the drawings, three sets of pressers D are employed, each set having six pressers for the six strings, and the pressers D are preferably made in the form of levers, hinged in sets of three on opposite sides of the frame A and extending diagonally on the under side thereof, their free ends being guided in guideways A′, arranged on opposite sides of the frame, as indicated in Figs. 3, 4, and 5. Each presser D is pressed on by a suitable spring D^2, so as to hold the same normally in an uppermost position—that is, with the under side of its lug or projection D′ above the corresponding string. (See Figs. 8 and 9.)

Directly above the pressers D are arranged longitudinally-extending bars E, fitted to slide vertically in suitable guideways A^2, formed on the ends of the frame A. The bars E are held normally in an uppermost position—that is, out of contact with the pressers D—by springs E′, secured to the frame A at the ends thereof, as indicated in Figs. 2, 4, and 5.

Each of the bars E is provided on its under side with downwardly-extending lugs or projections E^2, each adapted to engage one, two, or more of the pressers D, located directly below, whenever a bar is pressed downward. If desired, each bar E may be formed with such lugs, both at the top and the bottom, as indicated in Fig. 7, so that for different chords the bar can be reversed and used for actuating the pressers, as above mentioned.

Each of the bars E is adapted to be engaged at its top by a block F, held laterally adjustable on a transversely-extending key G, pivoted on one side of the frame and extending over the top thereof, with the free ends of the keys projecting beyond the front side of the frame to permit the performer to conven-

iently press and actuate the keys with the fingers.

Each of the keys G is formed at its under side with a lug G′, adapted to engage the top of one of a series of U-shaped levers H, likewise fulcrumed on the frame A, and each provided at its side arms with adjustable blocks I, engaging a corresponding bar E, so that when a key G is pressed its block F presses one of the bars E and its lug G′ presses the corresponding lever H, and the latter by its blocks I presses another one of the bars E or the same bar at several points to bring it down evenly. Thus by pressing a single key two bars E are simultaneously pressed, if necessary, it being understood that the adjustable blocks F and I can be changed to permit of pressing but a single bar, or more bars when actuating a single key, if necessary, for a certain chord.

The keys G are fitted to slide near their free ends in suitable guideways A^3, arranged on the top of the frame A.

The operation is as follows: When the attachment is in position on the finger-board C′ of the musical instrument C (illustrated in Fig. 1) and the performer presses one of the keys G, then a number of pressers D are moved downward to press that number of strings to the corresponding frets required to produce a chord, when the corresponding strings are played in the usual manner. Thus by the performer manipulating the several keys G any desired chord can be readily sounded, it being understood that the several blocks F and I are set for pressing such bars E as will make the desired chord.

It is evident that any number of levers, bars, and pressers may be employed, according to the range of music desired to be produced, and consequently I do not limit myself to the particular arrangement shown and described. As illustrated by Fig. 7, lugs E^2 on the top of the bars E may be used in lieu of the adjustable blocks I on the levers H and the blocks F on the keys G, thereby dispensing with the blocks entirely and using the levers H and keys G directly in the said bars.

As shown in Fig. 6, the keys G and the levers H may be swung back on their pivots or hinges, so as to fully expose the chord-producing bars E and make them readily removable.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of the frame, the chord-producing bars, and actuating devices adapted to engage said bars, said actuating devices being hinged or pivoted to the frame and capable of being swung on their pivots until their lower surface is uppermost or substantially so, for the purpose of fully exposing the chord-producing bars, as set forth.

2. A device of the class described, provided with sets of pressers arranged to extend diagonally over the finger-board, and adapted to engage and press sets of strings, to produce chords when the corresponding strings are played, substantially as shown and described.

3. A device of the class described, comprising chord-producing bars, levers engaging said bars, and keys engaging both the bars and the levers, substantially as described.

4. A device of the class described, comprising chord-producing bars, actuating devices extending transversely of the bars, and operating-blocks mounted on said actuating devices and adapted to engage said bars, said blocks being adjustable transversely of the bars to engage with any of them, substantially as described.

5. A device of the class described, provided with sets of pressers each adapted to press a set of strings into chord position, bars for actuating the said pressers, keys for actuating the said bars, and sets of levers engaging the said bars and actuated from the said keys, substantially as shown and described.

6. A device of the class described, provided with sets of pressers adapted to press a set of strings into chord position, bars for actuating the said pressers, keys for actuating the said bars, and sets of levers engaging the said bars and actuated from the said keys, each key being provided with an adjustable block for engagement with a bar, substantially as shown and described.

7. A device of the class described, provided with sets of pressers each adapted to press a set of strings into chord position, bars for actuating the said pressers, keys for actuating the said bars, and sets of levers engaging the said bars and actuated from the said keys, each lever being provided with adjustable blocks for engagement with the corresponding bar, substantially as shown and described.

8. A device of the class described, comprising a casing arranged for removable connection with the finger-board of a musical instrument, a series of keys on the said casing, and each having blocks, a series of spring-pressed bars fitted to slide in the casing and adapted to be engaged by some of the blocks, a series of pressers engaged by the said bars, and adapted to press the strings, and a set of levers having blocks and controlled by the keys, the said set of levers being adapted to actuate the said bars, substantially as shown and described.

9. The combination of the keys, the chord-producing bars operated thereby and arranged transversely thereof, and the diagonally-arranged pressers operated by the said bars, substantially as described.

JUSTUS LEONARD KELMAN.

Witnesses:
WILLIAM BOSLER,
S. A. FRIEDMAN.