(No Model.)

C. T. MENZE.

CITHERN.

No. 603,699. Patented May 10, 1898.

Fig. 1.

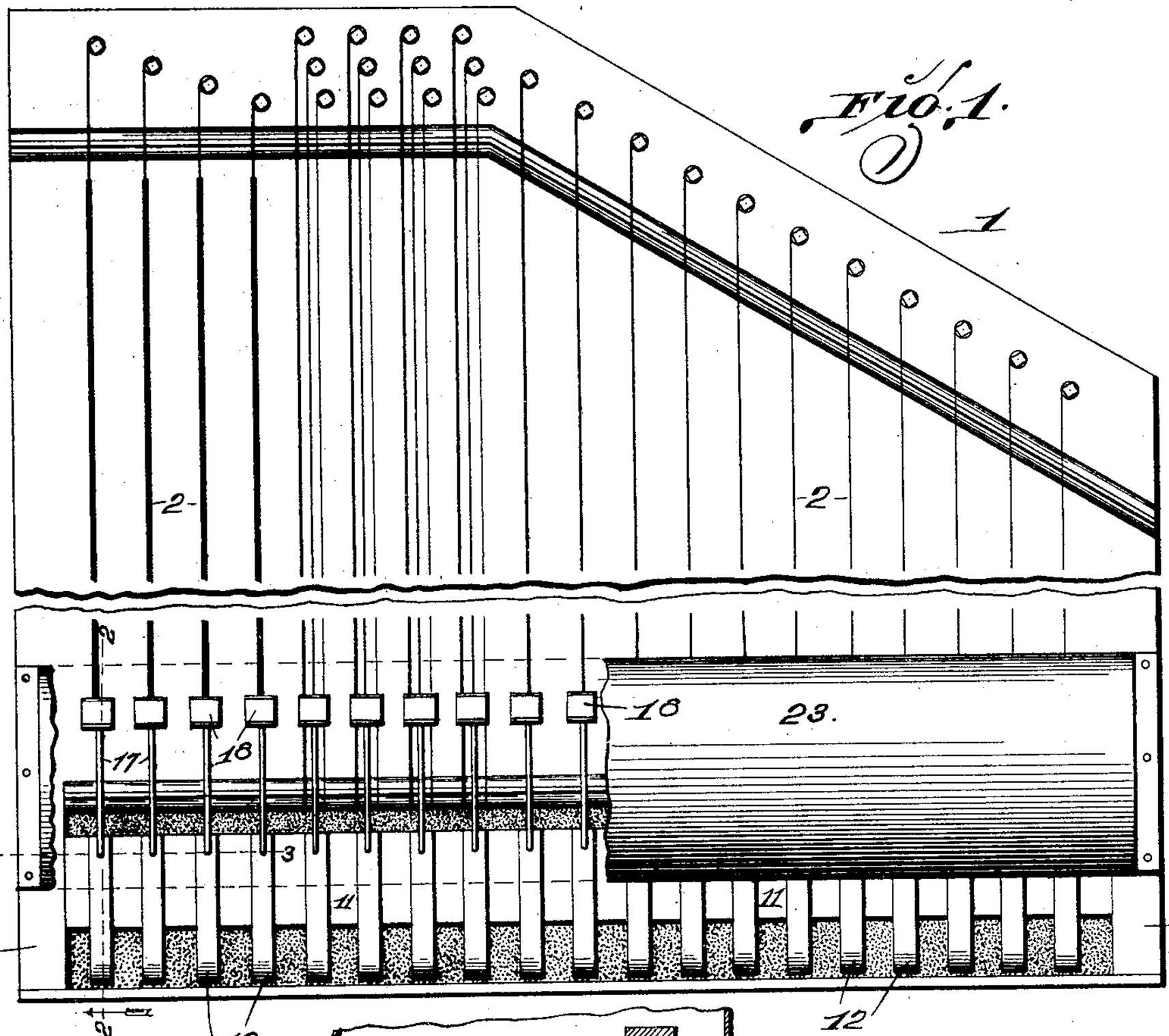


Fig. 2.

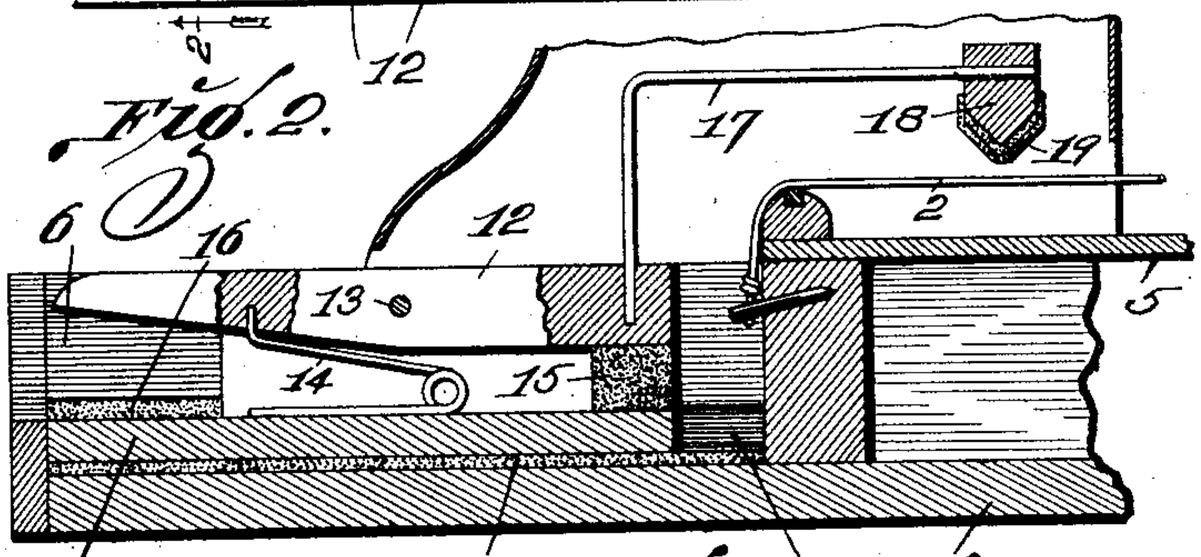


Fig. 3.

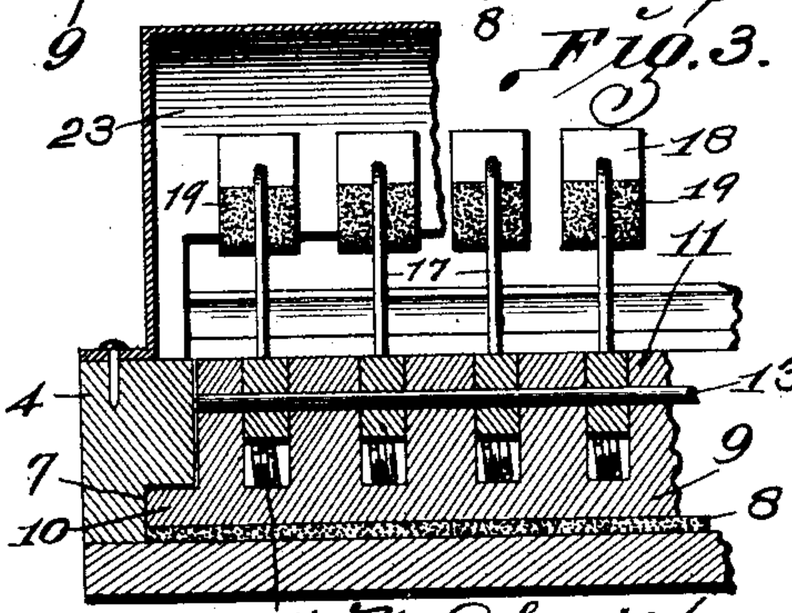
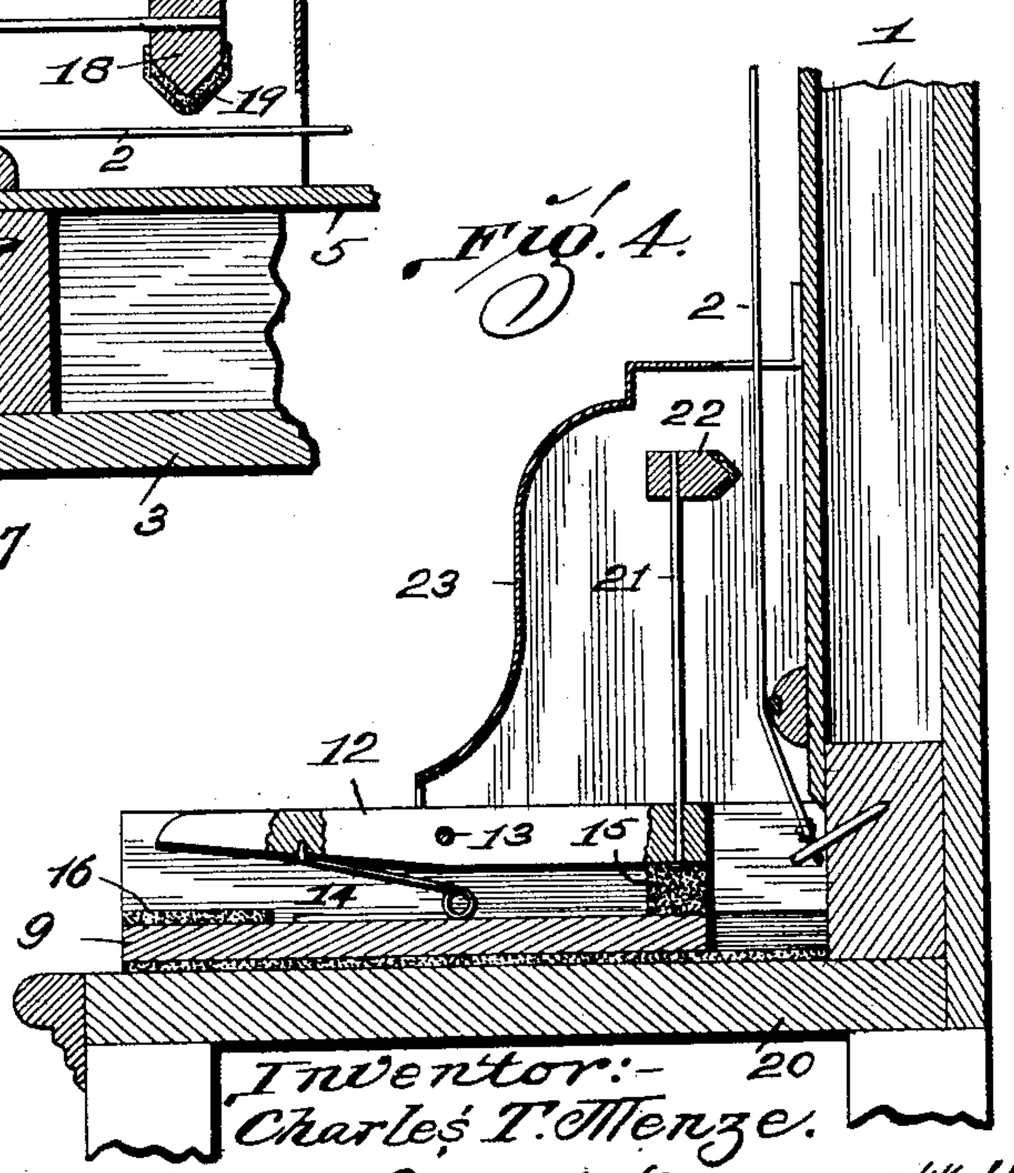


Fig. 4.



Witnesses:
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By Higdon, Longan & Higdon Atty's.

UNITED STATES PATENT OFFICE.

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CITHERN.

SPECIFICATION forming part of Letters Patent No. 603,699, dated May 10, 1898.

Application filed December 6, 1897. Serial No. 661,007. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. MENZE, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Citherns, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to citherns; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a plan view of my improved cithern. Fig. 2 is an enlarged sectional view taken approximately on the line 2 2 of Fig. 1 and looking in the direction indicated by the arrow. Fig. 3 is an enlarged sectional view taken approximately on the line 3 3 of Fig. 1. Fig. 4 is a transverse sectional view of a modified form of my improved cithern.

Referring by numerals to the accompanying drawings, 1 indicates the body of the cithern, which is of the ordinary construction and provided with the usual strings 2. At the front end of the cithern the base-board 3 and side rails 4 are extended a slight distance beyond the sounding-board 5 of said cithern, thus making a rectangular offset 6, which offset is occupied by the means for playing the cithern. Formed in the inner faces of the side rails 4 and immediately above the base-board 3 are the grooves 7, and located upon the base-board 3, within the offset between these grooves, is a section 8 of leather, felt, or analogous material.

9 indicates a rectangular block which is of the same length and height as is the offset 6; but said block is somewhat narrower in width than is said offset 6. Tongues 10 are formed integral with the lower edges of the side faces of this block, said tongues running in the grooves 7, formed in the side rails 4 of the cithern when the block is positioned in the offset 6. A series of rectangular ears 11 are formed integral with and project upwardly from the top side of the block 9, and arranged in the recesses between said ears is a series of keys 12, the same being pivotally mounted at points near their centers upon the rod 13, that passes entirely through all of the ears and all of said keys. Springs 14 are located beneath each key in such a position that the outer end of each key is normally held in an elevated position. Located in the recesses between the ears 11 and beneath the rear end of each of the keys is a block 15 of felt, rubber, or analogous material, which blocks perform the function of noiseless stops or buffers. Located upon the top side of the block 9, in front of the ears 11 and beneath the front ends of the keys 12, is a strip 16 of felt or analogous material, which strip performs the function of a noiseless stop when the forward ends of said keys are depressed.

An arm 17, constructed of spring-wire and provided with a rectangular bend, is seated in the top portion of the rear end of each of the keys 12, the horizontal portion of said arm extending forward over the sounding-board 5 of the cithern, and a hammer or head 18, the point of which is covered with felt or analogous material, is located upon the end of the horizontal portion of each of said arms 17, and said hammers are located directly over each of the wires or strings 2 of the cithern.

In the modification shown in Fig. 4 the body of the cithern 1 is located upon a suitable base 20 in a vertical position, and the block 9, carrying the keys and other parts, as hereinbefore described, is located immediately in front of the lower end of said cithern. In this form the spring-arms 17 of the preferred form of the device are dispensed with and straight spring-arms 21 extend vertically upward from the rear ends of the keys 12. Said arms 21 are provided with hammers 22, which hammers strike the strings of the vertically-arranged cithern.

In both forms of the device suitable sheet-metal covers 23 are so located upon the body of the cithern as that the rear ends of the keys 12 and hammers will be protected from dust and from being broken or bent in any manner.

The section of material 8 acts as a packing to prevent any rattling or movement of the block 9 when properly located within the offset 6 of the cithern. The cushions 15 and 16 make the operation of the keys noiseless.

In the operation of my improved cithern or to play upon the same the operator places the finger upon the key, the hammer of which strikes upon the string that is to be sounded, and with said finger depresses the front end of said key, and in so doing presses the ends

of the spring 14 together, thereby restoring power in the coil in said spring, and as the front end of the key is depressed the rear end will necessarily be elevated, and the arm 17 and hammer carried thereby will be likewise elevated. The operator now quickly removes or allows his finger to slip from the end of the key 12, and as said key springs to its normal position the spring-arm 17 will vibrate slightly and the cushioned end of the hammer 18 will contact with the cithern-string, which string will vibrate and be sounded. If desired, a series of the strings 2 may be located close together, so as to be struck by one hammer, which strings can be tuned so as to sound a chord when struck, or the ears 11 may be made much narrower and a series of black keys interposed between the keys 12, which black keys will sound the sharp and flat strings, which arrangement of keys would be similar to that of the keys in an ordinary piano.

When desired, the block 9, carrying the entire mechanical parts or playing mechanism of the cithern, may be removed from the offset in the base of said cithern and said cithern can be played in the ordinary manner.

A cithern of my improved construction presents a very neat and finished appearance, is easily operated, and even tones are produced when the strings are sounded.

I claim—

1. The combination with a cithern having an offset formed in the top side of its front end, of a block slidingly mounted in said offset, which block is provided with keys for sounding the strings of the cithern, substantially as specified.

2. The combination with a cithern having an offset formed in the top side of its front end, of a block mounted to slide in said offset, spring-actuated keys operating in said block, spring-arms extending upward and rearward from the rear ends of said keys, and hammers carried by said spring-arms for striking the strings of the cithern, substantially as specified.

3. A cithern constructed with an offset in the top side of its front end, a block arranged to slide in said offset, parallel ears formed integral with and extending upward from said block, spring-actuated keys operating in the recesses between said ears, spring-arms extending upward and rearward from the rear ends of said keys, and cushioned hammers located upon the ends of said spring-arms and arranged to strike the strings of the cithern, substantially as specified.

4. A cithern constructed with an offset in the top side of its front end, a section of flexible material located in the bottom of said offset, a block arranged to slide in said offset, ears formed integral with and extending upward from said block, spring-actuated keys pivoted to operate in the recesses between said ears, a cushion located below the forward ends of said keys, cushions located in the recesses between the ears beneath the rear ends of the keys, spring-arms extending upward and rearward from the keys, hammers located upon the ends of said spring-arms, and cushions located upon said hammers, substantially as specified.

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

CHARLES T. MENZE.

Witnesses:
ALBERT J. MCCAULEY,
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