(No Model.)

## C. F. HAUPT.

ZITHER.

No. 352,648.

Patented Nov. 16, 1886.

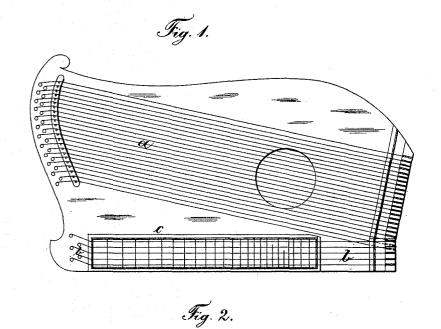
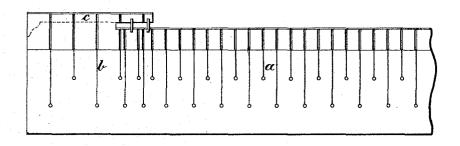




Fig. 3.



Mitnesses. Anthony Greffen. Jean Hassert. Inventor.
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## UNITED STATES PATENT OFFICE.

CARL FERDINAND HAUPT, OF DRESDEN, SAXONY, GERMANY.

## ZITHER.

SPECIFICATION forming part of Letters Patent No. 352,648, dated November 16, 1886.

Application filed March 31, 1885. Serial No. 160,844. (No model.) Patented in Germany January 29, 1885, No. 32,319, and in England March 13, 1885, No. 3,281.

To all whom it may concern:

Beitknown that I, CARL FERDINAND HAUPT, of the city of Dresden, in the Kingdom of Saxony and German Empire, have invented certain new and useful Improvements in the Arrangement of the Accompanying Strings on Zithers, of which the following is a specification.

My invention relates to improvements in the arrangement of the accompaniment strings on zithers, (for which I have obtained patents in Germany January 29, 1885, No. 32,319, and in England March 13, 1885, No. 3,281,) the object of which is to so arrange the parts of the said zithers that the hand in playing has an easy natural position and the fingers are in no way hampered.

In all zithers known up to the present day the accompaniment-strings run or are strung parallel to the finger-board or air-strings, so that the muscles of the hand must be subjected to great tension in playing the strings which lie at a considerable distance from the finger-board, which is especially difficult for beginners, and forces the hand to take up an entirely unnatural position.

Figure 1 is a top view, Fig. 2 a side view, and Fig. 3 an end view, of my improved zither.

According to my invention as represented 30 in the accompanying drawings, all these disadvantages are overcome, the fingers can be employed for playing the strings without leaving their natural position, and without having to fear that a cramp will be caused in the 35 muscles of the hand, as so frequently occurs in playing zithers constructed on the old principle. I attain this object by stringing the ac-

companiment-strings a in inclined or acute angular position to the finger-board strings b, according to the structure of the hand, whereby 40 the requisite angle can be readily ascertained by spreading out the thumb from the fingers.

In order to prevent having to increase the size of the instrument beyond what is absolutely necessary, the finger-board c is raised 45 and the neighboring two or more accompaniment-strings a attached beneath the same. This raising of the finger-board c corresponds entirely with the natural position, as the fingers occupy a lower position than the thumbs. 50

Having now described and ascertained the nature of my said invention, what I claim, and desire to secure by Letters Patent, is—

1. The zither provided with the accompaniment-strings a at an acute angle to the fingerboard c and the air-strings b, substantially as set forth in the foregoing specification and shown in the accompanying drawings.

2. The zither provided with the finger-board elevated above the accompaniment-strings, 60 and the accompaniment-strings nearest the finger-board located lower than or beneath the same, substantially asset forth in the foregoing specification and shown in the accompanying drawings.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

## CARL FERDINAND HAUPT.

Witnesses:

OTTO WOLFF, RICHARD BERNDT, Both of Dresden.