

No. 708,139.

Patented Sept. 2, 1902.

C. M. HALVORSEN.  
MECHANICAL MUSIC CHART.

(Application filed May 8, 1900.)

(No Model.)

Fig. I



II

Fig. II

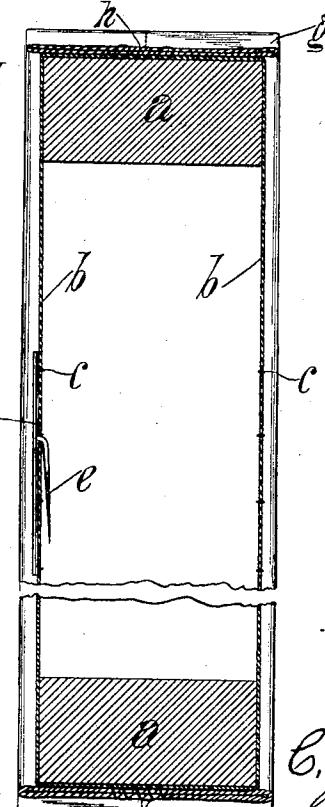


Fig. III

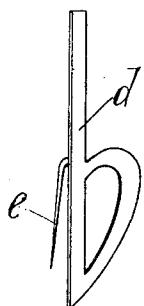
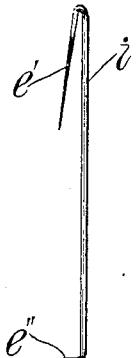


Fig. IV



Witnesses

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# UNITED STATES PATENT OFFICE.

CHRISTINE MARIE HALVORSEN, OF LOS ANGELES, CALIFORNIA.

## MECHANICAL MUSIC-CHART.

SPECIFICATION forming part of Letters Patent No. 708,139, dated September 2, 1902.

(Application filed May 8, 1900. Serial No. 15,964. No model.)

*To all whom it may concern:*

Be it known that I, CHRISTINE MARIE HALVORSEN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Mechanical Music-Charts, of which the following is a specification.

My invention relates to the construction of music-charts having a face of reticulated material on which the music characters are detachably suspended by means of hooks.

The object of my invention is to provide means especially adapted for use in kindergarten work for interesting very young children in musical composition and to enable such children and children in the primary grades to construct music before they are sufficiently skilled to form the music characters.

It is an object of my invention to provide a cheap, extremely simple, light, and convenient school appliance by means of which very young children will be induced to familiarize themselves with the appearance and use of the music staff and characters.

Another object is to provide a device of this character which can be readily and frequently thoroughly cleansed, so that its use in public schools will be free from any danger of contagion.

The accompanying drawings illustrate my invention.

Figure I is a view of my newly-invented mechanical music-chart in use. Parts are broken away for clearness of illustration. Fig. II is an exaggerated fragmental cross-section of the same on line II II, Fig. I looking toward the larger end. Fig. III is a detail view of one of the tone-indicating characters detached. Fig. IV is a side elevation of one of the characters detached, showing two attaching-points.

My newly-invented mechanical music-chart comprises an open frame *a*, a sheet of woven fabric *b*, stretched over the frame and furnished with the lines *c* of a music-staff, and music characters *d*, each of which is provided on its rear side with a projecting pointed pin *e* for insertion into the woven fabric. The sheet of woven fabric forms the face of the chart and is of any desirable color, and the lines *c* of the staff are preferably formed by rows of

stitches of thread of a color different from that of the sheet. Each of the pins *e* is preferably set at an acute angle with the back of the character and projects at such an angle as to allow the pin to be readily inserted into the sheet. Preferably each side of the chart-body is made of woven fabric tightly stretched over the frame. The preferred way of constructing the chart-body is to form a sheath of the woven fabric, which has been previously stitched or otherwise marked to produce the staff-lines. The sheath is of a size to fit tightly over the frame. Preferably the frame tapers slightly from one end to the other, and the sheath has a corresponding taper, so that when the tapered frame is inserted into the sheath it may be forced thereinto, thus tightly stretching the fabric, after which the rim of the sheath will be drawn together by threads *f*, after which a band *g* will be placed around the frame and fastened by any suitable means—such, for instance, as the stitches *h* through the band into the sheath.

*i* indicates the bars for the staffs. They are preferably formed of wire and are provided at the top with a hook *e'* and at the lower end with a projecting point *e''*. To apply the bars, the hook *e'* will first be inserted in the fabric, and when the bar is in place the point at the lower end will be inserted in the fabric, thus holding the bar firmly in place.

Preferably the detached characters are formed of sheet metal, such as tin or other suitable material, stamped into the appropriate forms and lacquered or otherwise colored, as desired, or the characters may be left the natural color of the material used or may be plated with nickel or some other suitable metal.

In practical use the child will be given one of the complete charts with detached characters requisite for the work in hand, and he will be directed to place the characters in the appropriate positions by inserting the pins of the characters respectively into the fabric at the appropriate place to fasten the characters at the appropriate position on the fabric. The child may use either or both sides of the chart-body at pleasure and can thus construct two pieces of music without confusion. The space between the separate sheets which form

the opposite sides of the chart chambers the pins inserted through the sheets, so that the pins pertaining to the one side will not mar the work on the other side.

5 The bars may be of sufficient length to extend across the lines of two staves or may be only long enough to extend across the lines of one staff.

10 The sheath of woven fabric can be readily detached by cutting the stitches *f* and drawing the sheath from the frame and laundering it, thus making it clean and neat, after which it will be replaced upon the frame. By applying the lines to the fabric the frame is 15 allowed to consist simply of four limbs or members united at the corners of the frame, and the frame can be made of a minimum weight, and there are no solid parts which will interfere with inserting the pins or hooks at 20 any place desired. By forming the lines of stitches in the fabric itself permanency of the lines is secured.

What I claim, and desire to secure by Letters Patent of the United States, is—

25 1. A mechanical music-chart comprising a sheath of woven fabric tapering slightly from one end toward the other and furnished with stitching for the lines of a music-staff and which can be readily detached if desired from 30 the frame; and independent tone-indicating music characters respectively provided with a pointed pin to insert into said fabric.

2. A mechanical music-chart comprising an open frame with four limbs or members united at the corners of the frame; a sheath of woven fabric stretched over the frame; and furnished with the lines of a music-staff and music characters respectively furnished with pointed pins which are inserted into the fabric to hold the characters in place. 35

3. A mechanical music-chart, comprising a sheath of woven fabric tapering slightly from one end toward the other and furnished with the lines of the music-staff; and a tapering frame to fit the sheath tightly. 40

4. A mechanical music-chart, comprising a sheath of woven fabric tapering slightly from one end toward the other, and furnished on its opposite side with the lines of the music-staff; a frame composed of four limbs joined at the corners and tapering to fit the sheath tightly; means for closing the mouth of the sheath; and a detachable band around the sheath outside the frame, substantially as set forth. 45

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, at Los Angeles, California, this 30th day of April, 1900.

C. MARIE HALVORSEN.

Witnesses:

JAMES R. TOWNSEND,  
JULIA TOWNSEND.