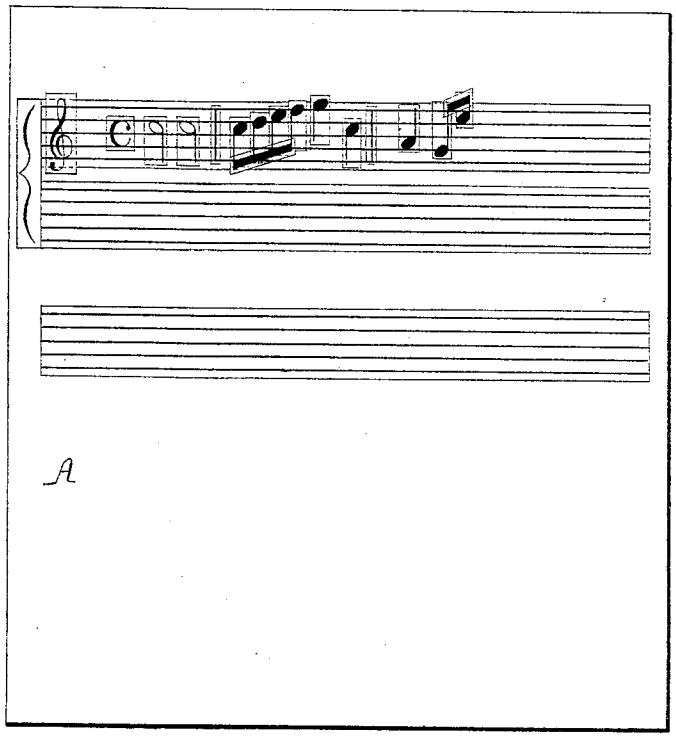
M. ALISSOFF.

PROCESS OF PREPARING SURFACES FOR PRINTING MUSIC.

No. 182,624. Patented Sept. 26, 1876.

Fig. 1



A

Fig 2

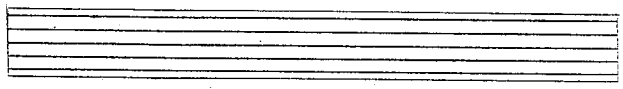
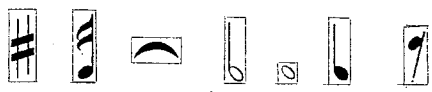


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

MICHAEL ALISSOFF, OF ST. PETERSBURG, RUSSIA.

IMPROVEMENT IN PROCESSES OF PREPARING SURFACES FOR PRINTING MUSIC.

Specification forming part of Letters Patent No. **182,624**, dated September 26, 1876; application filed July 19, 1876.

To all whom it may concern:

Be it known that I, MICHAEL ALISSOFF, of St. Petersburg, Russia, have invented certain Improvements in Preparing Surfaces or Plates for Printing Music, &c., of which the following is a specification:

The main object of my invention is to rapidly and economically produce surfaces or plates for printing music, an object which I attain in the manner which I will hereafter describe, reference being had to the accompanying drawing.

At the present time there are in use two processes, principally for the preparation of plates for printing music. The first is similar to that used in the production of ordinary printed matter—that is, the different signs or types used in musical typography are set one after the other, so as to compose a complete musical stave. As each sign, however, is divided into several characters this work is very tedious, and requires in the compositor so much practice and attention that a printing-plate for music prepared in this way is very expensive. The second process consists in engraving the notes on soft metallic plates, and although this process is greatly facilitated and simplified by the use of special tools and punches, it necessitates the employment of skilled and highly-paid engravers, and demands constant attention on their part in order to prevent mistakes. In this case, also, it is difficult to correct minor errors, and those of greater importance, such, for instance, as an omission or a defective arrangement of the bars, necessitates the re-engraving of the page in which they occur.

The process which I employ greatly facilitates and simplifies the work, and is as follows: The staves, notes, and other signs used in music, preferably from three to four times the usual size, are first printed on sheets of unsized paper, which are either transparent or translucent, and these sheets are then cut up, and the staves, such as shown in Figure 1 of the drawing, and notes and signs, some of which are shown in Fig. 3, are arranged in type-cases like ordinary metallic types. The composition is then set up by simply pasting on a suitable background, A, Fig. 1, first the staves, then the notes and signs, in accordance with the manuscript which is to be printed.

When the paper on which the notes and signs are printed is not perfectly transparent these notes and signs should be affixed with a gum which has the property of rendering the paper on which they are printed transparent, in order to render visible the staves over which they are pasted. Vignettes, and other ornamental matter with which it is desired to embellish the sheet, are also printed upon strips of similar paper, and applied in the same way.

After the sheet A has been properly prepared, it is photographed, being reduced to the desired size by the camera, and from the negative the design is printed on stone by the usual photolithographic process, or when printing-plates for use in an ordinary press are required they are produced by any of the usual photo-relief or photo-engraving processes.

I prefer to use as a background, A, a sheet of glass or other transparent material, behind which I place a sheet of paper ruled closely with vertical and horizontal lines, which act as a guide to the compositor and much facilitate the proper spacing of the bars and the regular disposal of the notes and musical signs on the staves. A few of the small and simple characters required might be cut or stamped directly from black or colored paper; but the greater number of characters will, of course, have to be printed upon the strips of paper, as described.

Among the advantages of my invention may be mentioned the following: First, the characters used being three or four times the size of ordinary musical signs, they can be handled with great facility; second, errors in composition can be readily corrected by removing from the background the strip or strips of paper on which the error occurs; third, stereotype-plates of any required size can be produced after the composition is once set up; fourth, highly-ornamented lithographic titles or vignettes may be used on the sheet of music; fifth, the printing of music may be carried on without incurring the expense involved in the purchase of a stock of metallic signs and characters, or engravers' tools and punches, and as the work can readily be performed by women

or children, the employment of high-salaried compositors or engravers is rendered unnecessary.

The invention may be applied to the production of elaborate and ornamental title-pages for books, or other works besides music, and to any works in the production of which costly engraged plates have now to be used, such as maps, charts, &c.

I claim as my invention—

1. As a new article of manufacture, type for the printing of music, consisting of strips of transparent paper carrying the various signs and characters, as and for the purpose set forth.

2. The within-described process of producing surfaces or plates for printing music—that is to say, by pasting upon a suitable background strips of transparent paper carrying the notes, signs, or other characters, and from the sheet thus prepared producing a printing-surface by photolithography, photo-relief, or similar process, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MICHAEL ALISSOFF.

Witnesses:

HARRY HOWSON, Jr.,

HARRY SMITH.