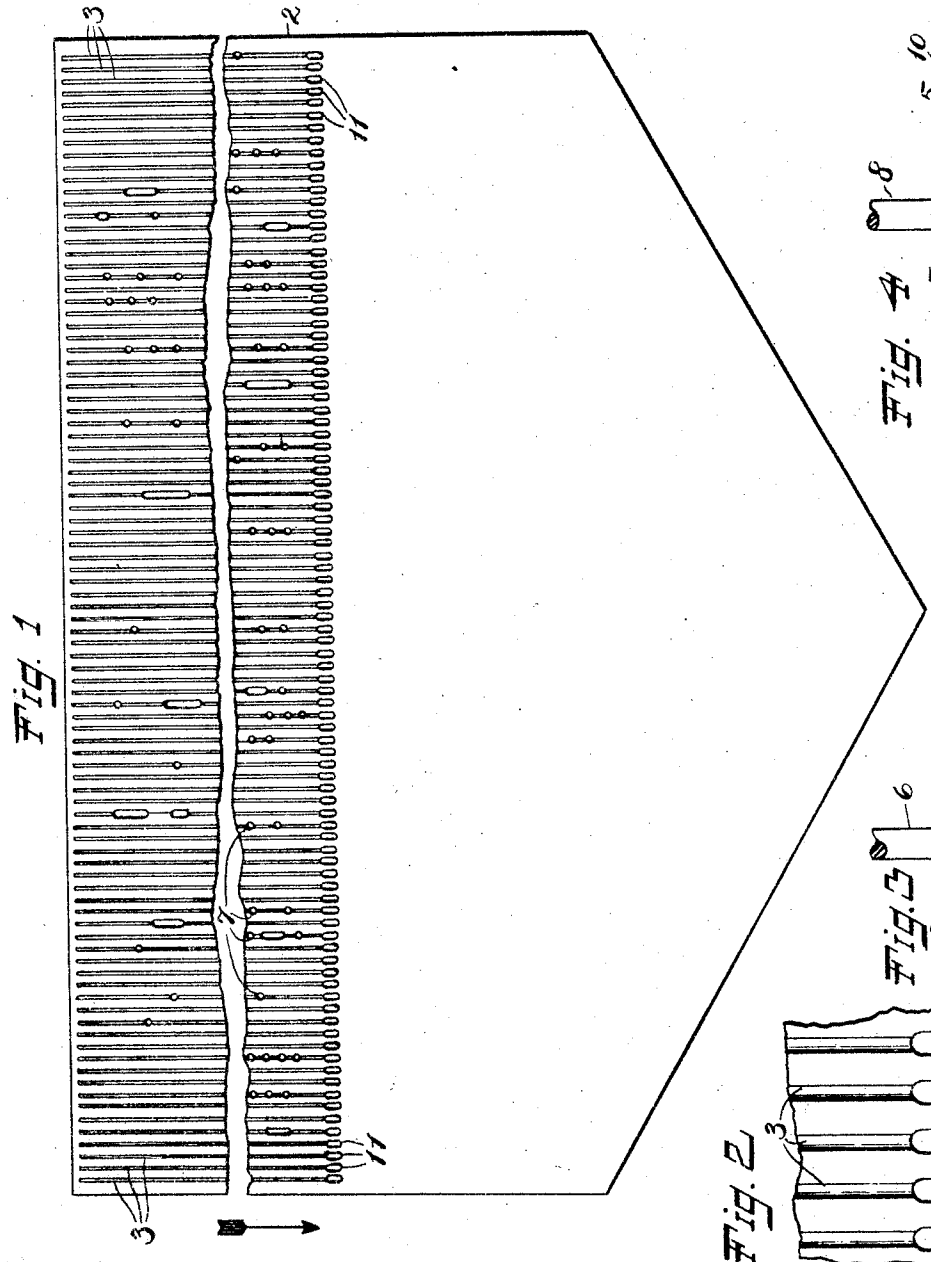
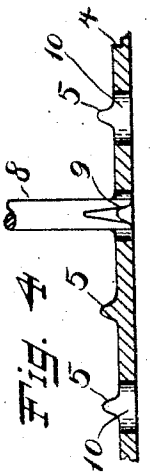
J. T. AUSTIN.

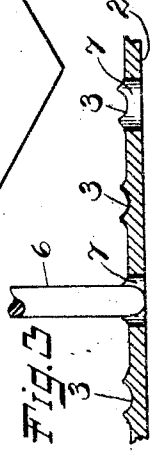
MUSIC SHEET.

APPLICATION FILED OCT. 15, 1914.

1,187,697. Patented June 20, 1916.







Witnesses:
S. H. Clarke
L. L. Markel

Inventor
John T. Austin
By Keith Sutherland
Atty.

UNITED STATES PATENT OFFICE.

JOHN T. AUSTIN, OF HARTFORD, CONNECTICUT, ASSIGNOR TO AUSTIN ORGAN COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF MAINE.

MUSIC-SHEET.

1,187,697. Specification of Letters Patent. Patented June 20, 1916.

Original application filed September 19, 1913, Serial No. 790,675. Divided and this application filed October 15, 1914. Serial No. 866,760.

To all whom it may concern:

Be it known that I, JOHN T. AUSTIN, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Music-Sheets, of which the following is a specification.

This invention relates to music-sheets.

A music or note sheet involving my invention, can be utilized with advantage in many and widely different connections; for instance, it can be employed in conjunction with electrically-operated musical instruments such as organs and pianos, two of several illustrations.

One of the primary objects of the invention is the provision of an article of the character set forth which is simple in construction, susceptible of inexpensive and easy manufacture and by which accurate tracking is insured.

In the drawings accompanying and forming part of the present specification I have shown in detail two of the several convenient forms of embodiment of the invention which to enable those skilled in the art to practise the same will be set forth fully in the following description. I do not restrict myself to this disclosure; I may depart therefrom in several respects within the scope of the invention defined by the claims following said description.

Referring to said drawings: Figure 1 is a view of a music sheet comprising my invention, the intermediate portion of the sheet being removed and the ends brought together. Fig. 2 is a detail view of a portion of said sheet. Fig. 3 is a cross section of the sheet, showing a contact-finger in elevation. Fig. 4 is a view corresponding to Fig. 3, of a modified form of sheet.

Like characters refer to like parts throughout the several views, the last three of which are on larger scales than Fig. 1.

As will be inferred from what has been noted I do not limit myself to the use of the sheet in connection with any particular type of apparatus; the latter may be an organ, piano or other instrument; in fact there may be instances where the device to be ultimately operated is not musical, the title adopted being merely a convenient one. I might add that this application is a division of my contemporaneously-pending application, filed September 19, 1913, Serial No. 790,675.

In Figs. 1 to 3 the music-sheet is denoted by 2, and it may agree in outline with those now in general use, this being an immaterial detail. It may be of any suitable material, for example paper or other suitable insulating material. The substance of which the sheet 2 is made, however, is not a matter of moment, the invention not concerning this point. Said sheet has longitudinally-extending positive guides of suitable kind. In Figs. 1, 2 and 3 said positive guides 3 are in the form of parallel grooves or channels. In the sheet 4 in Fig. 4 the longitudinally-disposed positive guides consist of parallel ribs, beads or tongues 5. Co-operative with the sheet 2 are suitable members, one of which is shown in Fig. 3 and as consisting of a contact-finger 6 of electrical conducting material. This finger 6 like its mates (not shown) is resilient, and its free end is adapted to be entered into one of the channels 3 so as to be accurately directed by said channel toward and into a note perforation or slot as 7 of which there are several of different lengths intersecting said channel. In Fig. 1 the arrow directs the line of movement of the music sheet 2. It will be assumed that one of these resilient fingers 6 is in the entering end of a coöperating channel or groove 3 and the longitudinally-corrugated sheet is moving in the direction indicated. The result will be that when an opening 7 comes opposite the free end of the finger, said end by the resilience of the finger will be sprung through said note perforation or slot and against a co-operating contact over which the sheet travels and thereby in a manner familiar in the art, close a circuit to effect the action of an organ key or sounding of an organ pipe or the performance of some equivalent act. The contact finger 8 of Fig. 4 is bifurcated at 9 at its free end to straddle the ribs or tongues 5, there being in both cases as will be inferred a tongue and groove guide connection between the music sheet and a finger or fingers. In connection with each of the guide portions 3 and preferably located at the front or leading end thereof is a posi-

tioning opening as 11 which as shown consists of comparatively short slots wider, however, than the channels and into which the free ends of the contact figners 6 can be initially introduced so that on the movement of the sheet the free ends of the fingers 6 will be correctly guided into the entering ends of the grooves 3.

In Fig. 4 the tongues or ribs 5 are intersected by the slots 10, the purpose of which is to permit the projection of the free end of the contact finger 8 against a coöperating member when a slot 10 is brought opposite the free end of a finger 8 on the movement of the sheet 4.

In both forms of the invention the sheet is corrugated, the corrugations extending longitudinally. In one form of the device the grooves of the corrugated portion of the sheet constitute contact guides, while in the other form the beads of the corrugated portion act as such contact guides.

What I claim is:

1. A music sheet of insulating material having note perforations and also having contact guides intersected by the perforations.

2. A music sheet of insulating material having several series of note perforations, the perforations of the respective series being in alinement longitudinally of the sheet, said sheet also having contact guides extending in parallelism with each other longitudinally of the sheet, each guide being intersected by the perforations of a series.

3. A music sheet of insulating material having longitudinally extending grooves and also having note perforations intersecting the respective grooves.

4. A music sheet of paper having a series of longitudinally extending grooves disposed in parallelism with each other and also having series of note perforations intersecting the respective grooves.

5. A music sheet of insulating material having contact guides and also having note perforations intersecting the respective guides, each guide having a contact positioning portion connected with it.

6. A music sheet of insulating material having a plurality of longitudinally extending guide grooves, a plurality of note perforations in longitudinally extending contact rows, the perforations of the rows intersecting the respective guide grooves, and contact positioning openings in communication with the leading ends of said grooves.

7. A music sheet of paper having a plurality of longitudinally extending parallel grooves and also having rows of note perforations, each groove being intersected by the perforations of a row.

8. A music sheet of insulating material having a longitudinally extending contact guide groove and also having a note perforation intersecting the groove.

9. A music sheet of insulating material having a longitudinally extending contact guide groove and also having a note perforation intersecting the groove, said sheet having a contact positioning opening in communication with and wider than the groove.

10. A music sheet of insulating material having note perforations arranged in series, said sheet being also corrugated, the corrugated portions of the sheet presenting contact guides coöperative with the respective series of perforations.

11. A music sheet of insulating material having note perforations arranged in series and also having contact guide grooves cooperative with the respective series of perforations.

12. A music sheet of insulating material having note perforations and also having means constituting a part of the sheet and located between the sides thereof for positively guiding contacts into and out of the respective perforations.

13. A music sheet of insulating material having longitudinally disposed rows of perforations and also having longitudinally disposed contact guide grooves coöperative with the respective rows of perforations.

14. A music sheet of insulating material adapted to longitudinally travel and having a longitudinally disposed series of note perforations and also having a contact guide portion approximately coextensive with the said perforations between the sides of the sheet, the contact guide portion being adapted to positively guide a contact into and away from the perforations on the travel of the sheet.

15. A music sheet of insulating material having a longitudinally extending contact guide groove and also having a series of note perforations approximately coextensive with the groove longitudinally of the sheet, said sheet also having a contact positioning opening independent of the perforations in communication with and wider than the groove.

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

JOHN T. AUSTIN.

Witnesses:
G. F. Austin,
Chas. T. Corbit.