

No. 612,164.

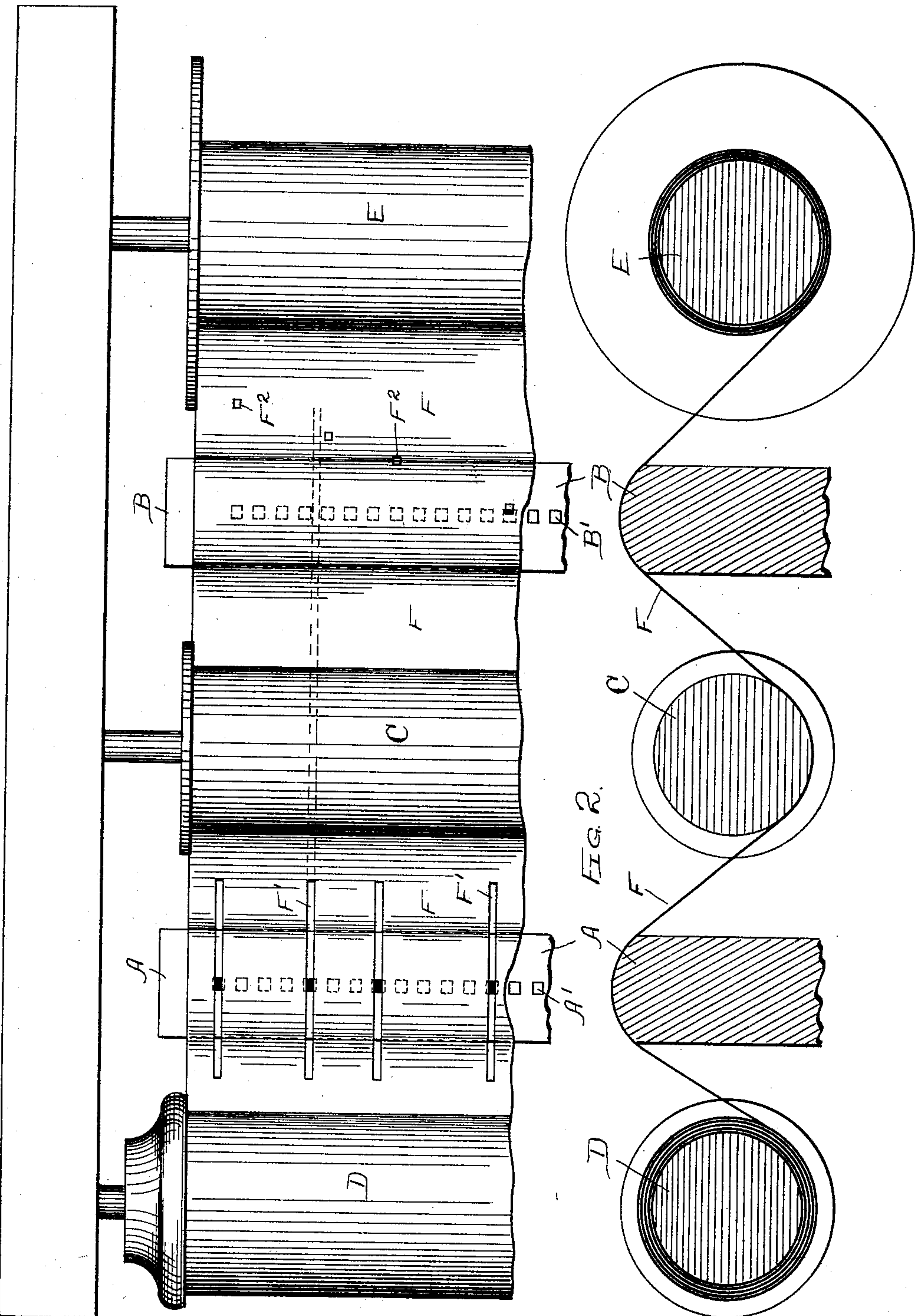
Patented Oct. 11, 1898.

F. W. HEDGELAND.
SELF PLAYING INSTRUMENT.

(Application filed Dec. 17, 1897.)

(No Model.)

FIG. 1.



WITNESSES:
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UNITED STATES PATENT OFFICE.

FREDERICK W. HEDGELAND, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE
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SELF-PLAYING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 612,164, dated October 11, 1898.

Application filed December 17, 1897. Serial No. 662,313. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. HEDGELAND, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Self-Playing Instruments, of which the following is a specification.

This invention is designed to provide a practical construction of self-playing mechanism for organs having more than one manual. In it I employ a separate tracker-range for each manual or organ embraced in the instrument—one, for instance, for the swell organ and one for the great organ—and arrange such ranges one in advance of the other and combine with them a single music or valve sheet. In order that this single sheet may be used, the openings in the ranges are staggered with reference to each other—that is, the openings in one tracker-range are placed in planes lying between the planes of the openings in the other tracker-range, and the sheet is perforated correspondingly, so as to bring the perforations for each tracker-range into planes corresponding in position to the planes of the openings in that range. The tracker-ranges are separated from each other a sufficient distance to allow the placing of a guide—such, for instance, as a roller—between them, such roller serving to draw the music-sheet down between the ranges, and thus insuring close contact by the sheet with the tops of the ranges. It will be understood, of course, that the perforations in the sheet representing simultaneously-sounding notes in the two tracker-ranges will be located in different transverse planes upon the sheet, such planes corresponding to the relative locations of the tracker-ranges and consequently somewhat widely separated upon the sheet. It will be further understood that each range is connected to and controls the sounding devices of its corresponding manual in the ordinary manner. By the use of these features, the construction of which will be fully understood from the drawings and the description given below, I am enabled to obtain room in a sheet of the same or substantially the same width as those now commonly employed for single-manual instruments for all the notes in the two tracker-ranges of a

two-manual instrument by simply narrowing the orifices of the range-openings and the perforations in the sheet a trifle from the width heretofore given them.

In the accompanying drawings I show at Figure 1 a partial plan of the tracker-ranges, a sheet adapted to be used therewith, and the sheets supporting and controlling rollers. Fig. 2 is a vertical section of the parts shown in Fig. 1.

In said drawings, A represents a tracker-range of the ordinary construction connected to the action of one of the manuals and operating to sound the pipes ordinarily sounded by the keys of that manual, and B is a similar tracker-range connected to the action of the sounding devices of the other manual and controlling the sounding of the pipes ordinarily sounded by the keys of that manual. One of these ranges is located in advance of the other in the line in which the music-sheet moves, and they are separated from each other to avoid interference with one another and a sufficient distance to give room to a suitable guiding device—such, for instance, as the idler-roller C—between them, the purpose of such roller being to depress the portion of the sheet between the ranges, as shown, and thus obtain a close contact of the sheet with the ranges.

D is the music-supplying roll, and E the take-up roll, one being driven while the instrument is playing and the other during the rewinding.

The music-sheet is indicated at F, and its course will be plainly understood from the drawings.

The openings in the tracker-range A (seen at A') are located in planes longitudinal of the music-sheet lying between the planes of the openings B' of the range B, and the music-sheet perforations are cut correspondingly, so that the perforations intended to operate one range shall not affect the other range, but instead will move between the openings of the latter without producing any action. The perforations F' in the music-sheet intended for the tracker-range A are of course located at quite a remove upon the sheet from the perforations F², intended to produce simultaneous action by range B. In other words,

the simultaneously-sounding notes of the two ranges are located in different transverse planes of the sheet, separated from each other by the length of that part of the sheet lying
5 between the tracker-ranges.

After the music-sheet is inserted in the instrument and the guide-roller is positioned over the same the operation is precisely similar to that of the one-manual self-playing instrument as now constructed and needs no
10 description.

I claim—

1. The combination in a two-manual self-playing instrument of a tracker-range for
15 each manual, one range located in advance of the other in the line of the movement of the music-sheet and the two ranges having their openings staggered with reference to

each other, a single music-sheet having perforations for both ranges arranged to correspond with the staggered openings in the ranges, and also having the perforations for the different ranges located in different transverse planes to correspond to the distance between the ranges, and means for depressing the sheet between the ranges, substantially as specified. 20 25

2. The combination with the two tracker-ranges and the music-rollers, of means for depressing the sheet between the ranges, substantially as specified. 30

FREDERICK W. HEDGELAND.

Witnesses:

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H. M. MUNDAY.