

No. 895,107.

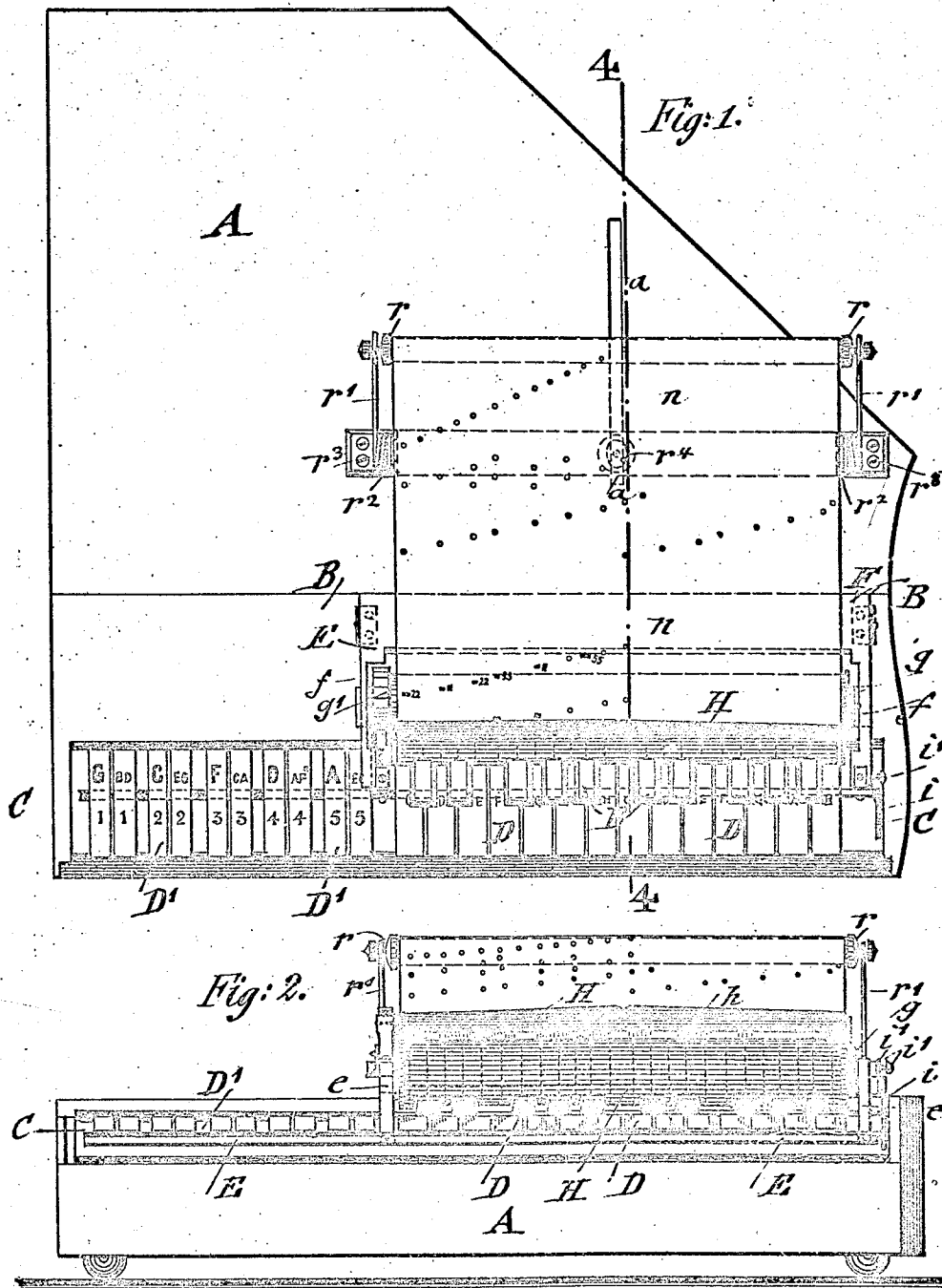
PATENTED AUG. 4, 1908.

J. PARDUBA.

ATTACHMENT FOR KEYED MUSICAL INSTRUMENTS.

APPLICATION FILED DEC. 4, 1907.

2 SHEETS--SHEET 1.



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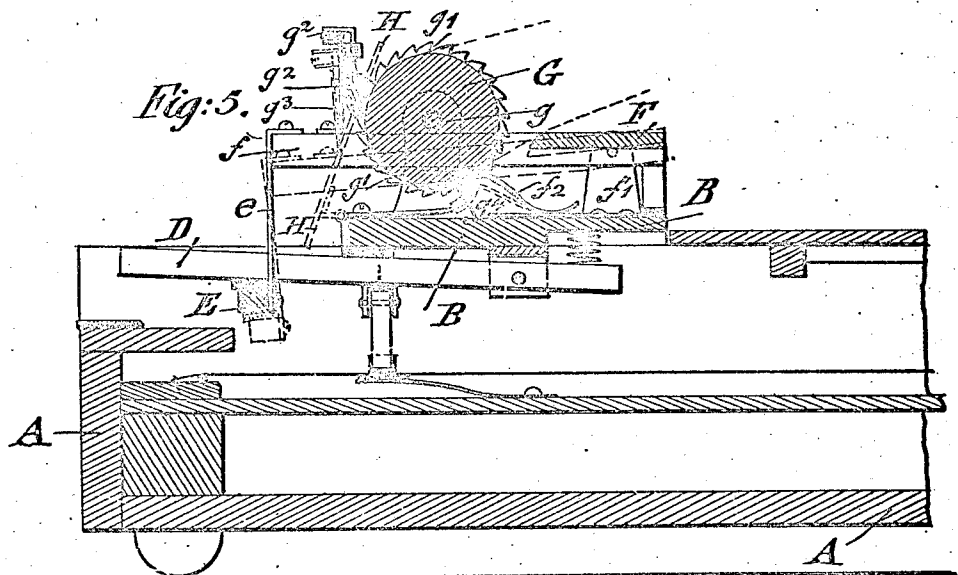
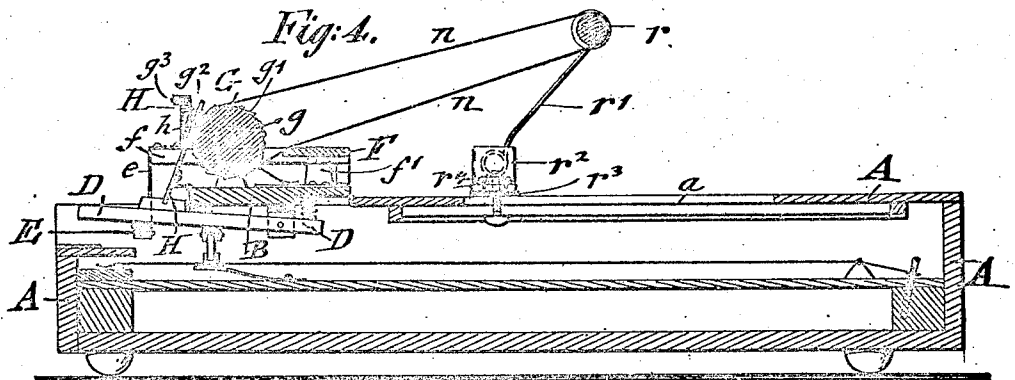
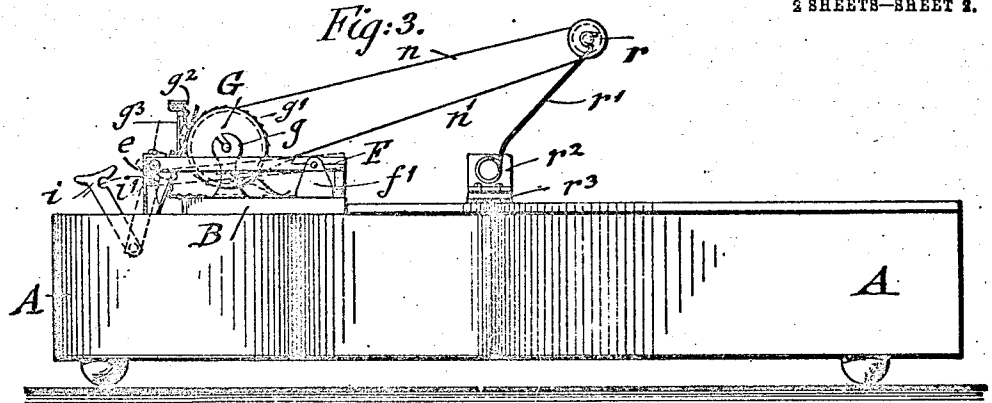
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2 SHEETS—SHEET 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN PARDUBA, OF NEW YORK, N. Y.

ATTACHMENT FOR KEYED MUSICAL INSTRUMENTS.

No. 895,107.

Specification of Letters Patent.

Patented Aug. 4, 1908.

Application filed December 4, 1907. Serial No. 405,058.

To all whom it may concern:

Be it known that I, JOHN PARDUBA, a citizen of the Empire of Austria, residing in New York, in the borough of the Bronx, county and State of New York, have invented certain new and useful Improvements in Attachments for Keyed Musical Instruments, of which the following is a specification.

This invention relates to an attachment for keyed musical instruments, and more especially to an attachment for the keyed zither for which Letters Patent were granted to me on April 30, 1901, No. 673,027, the attachment being designed for permitting any one, without knowledge of musical notation, to play the instrument and thereby enjoy the playing of musical pieces either for amusement or as a preparation for the more serious study of playing a keyed instrument; and for this purpose the invention consists of an attachment for keyed musical instruments, which comprises an endless note-sheet which is mounted on a driving-roll supported back of the key-board, means for rotating the driving-roll by means of a key-bar below the keys of the instrument, and a key-plate arranged in front of the driving-roll and pivoted with a transverse slot through which the notations on the endless note-sheet are visible.

The invention consists further of the special mechanism by which the driving-roll and the note-sheet are operated by the depression of the keys, and lastly of certain additional details of construction which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a plan-view of my improved attachment for keyed musical instruments shown with the note-sheet placed in position, Fig. 2 is a front-elevation of the same, Fig. 3 a side-elevation, Fig. 4 a vertical longitudinal section on line 4, 4, Fig. 1. and Fig. 5 is a detail transverse section of the key-board and the note-sheet actuating mechanism, drawn on a larger scale.

Similar letters of reference indicate corresponding parts throughout the several figures.

Referring to the drawings, A represents a keyed musical instrument, preferably the keyed zither for which the patent hereinbefore referred to was granted to me. B is a bridge which extends transversely across the strings at the front-part of the instrument,

but back of the keyboard C. The leading keys D of the keyboard are preferably arranged according to the chromatic scale for any number of octaves, while a number of keys D¹ at the left-hand side of the keyboard serve for playing the harmonic chords for accompanying the melody played on the leading keys. Below all the keys D D¹ and transversely thereto is arranged a felt-covered key-bar E which is suspended by upright arms *e* from the horizontal arms *f* of a frame F which is pivoted to ears *f*¹ attached to the rear-end of the bridge B. The arms *f* of the frame F are actuated by suitable springs *f*² so as to hold the key-bar in contact with the underside of the keys.

A driving-roll G is supported in perforated ears *g* on the bridge B, the shaft of the roll being provided at one end with a ratchet-wheel *g*¹ which is engaged by a spring-actuated pawl *g*² that is pivoted to the upper end of an upright arm or post *g*³ which is located on the adjacent arm *f* of the frame F, so that on every depression of a key the pivoted and spring-actuated pawl engages one of the teeth of the ratchet-wheel of the driving-roll and rotates thereby the driving-roll for the distance of one tooth. A check-pawl *g*⁴ which engages the lower part of the ratchet-wheel *g*¹ secures the taking of one tooth after the other of the ratchet-wheel and controls the regular step by step motion of the same. At the rear of the driving-roll is supported on the cover of the instrument a guide-roll *r*, over which and the driving-roll G an endless note-sheet *n* is conducted. The ends of the shaft of the guide-roll *r* are grooved and provided with headed studs which are supported in the hook-shaped upper ends of spring-arms *r*¹ which are attached at their lower ends to a hinged plate *r*² so that the arms can be folded down on a transverse strip *r*³ which is adjusted by means of clamping screws *r*⁴ in a longitudinal guide-slot *a* in the cover of the instrument, as shown in Fig. 4.

The endless note-sheet *n* is provided with ordinary musical notes, or with arbitrarily-selected dots or other notation which are arranged in parallel lines on the sheet and which are visible in the transverse longitudinal slot *h* of a key-plate H that is hinged by its rear-part to the bridge B so as to be folded back over the same. When it is required for use it is lifted up and placed against the note-sheet after the same has been placed in position over the driving-roll G and guide-roll *r*,

so that the parallel notations on the same can be read off through the slot in the key-plate H. By the line of notation visible through the slot of the key-plate, the leading
 5 keys to be played are indicated, while the accompanying chords are indicated by numbers which correspond to the numbers of the harmonic chord-keys D¹ on the left-hand side of the instrument. The key-bar E can be
 10 lowered so as not to engage the keys D and D¹ by means of a pivoted locking hook i, which is placed in engagement with a pin i¹ on the arm f of the pivoted frame F as shown in Figs. 1 to 3.

15 Note-sheets corresponding to any song or piece of music are furnished and sold either with the instrument, or independently therefrom to parties who have already an instrument. The endless note-sheet is mounted
 20 on the driving-roll and on the guide-roll which latter is placed into the hook-shaped supporting ends of the spring-arms r¹ so that the required degree of tautness is imparted to the endless note-sheet. When a sheet of
 25 more than ordinary length is required, the transverse spring-supporting arms are moved backwardly in the guide-slot of the instrument until the required degree of tautness is obtained. The key-plate is then placed in
 30 position over the front-part of the note-sheet so that successively, as the piece is played, one notation after the other appears in the slot of the key-plate by the action of the pawl and ratchet mechanism operated by the
 35 keys and key-bar, and is thereby played mechanically by depressing the leading keys and chord keys corresponding to the different notation marks. In this manner, with little practice, any tune represented by the
 40 note-sheet can be played by the player, who is not required to know anything about music, as he simply follows mechanically the prescribed signs on the note-sheet, at the same time playing not only the leading notes,
 45 but also the chords accompanying the same.

When the playing is to be discontinued, the note-sheet is removed from the driving-roll and the guide-roll, the driving-roll remaining in position in its supporting bearings, while the guide-roll is removed from the arms and placed in the case of the instrument, the spring-arms being folded down on the transverse strip on the cover of the instrument. The note-sheet is then rolled up
 50 and stored in the case of the instrument, together with the guide-roll, ready for the next use of the instrument. When the instrument is to be used again, the spring-arms for the guide-roll are raised and the guide-roll
 55 placed in position thereon, after which the endless note-sheet is placed around the driving-roll and the guide-roll. The key-plate is then placed in position in front of the note-sheet and the instrument is ready for playing.
 60 It permits the playing of music by any per-

son without any knowledge of music, and forms not only an amusement to music lovers generally, but also an incitement to the learning of the playing of a keyed musical instrument. The key-plate is marked on the face-
 70 side with the notation of the chromatic scale, likewise the keys, so that the ordinary keys as well as the chromatic scale can be learned by the player.

When the instrument is to be played from
 75 ordinary notes, or when a tune is desired to be played from memory, then the key-bar E is locked into the lowermost position and held therein by the pivot-hook i and pin i¹,
 80 so as not to be depressed by the keys in which case the note-sheet is either not used at all, or held in position on its driving and guide-rolls without being set in motion by the action of the keys.

Having thus described my invention, I
 85 claim as new and desire to secure by Letters Patent:

1. The combination, with a keyed musical instrument, of a playing attachment consisting of an endless note-sheet, a driving-
 90 roll adjacent to the keys for the note-sheet, a guide-roll for the rear-part of the note-sheet, means for moving said note-sheet on every depression of the keys, and a key-plate located in front of the note-sheet and provided
 95 with a longitudinal slot for reading off the notations on the sheet while playing the keys indicated thereon.

2. The combination, with a keyed musical instrument, of a keyboard containing leading
 100 keys and accompanying chord-keys, a driving-roll located adjacent to the leading keys, a guide-roll for the rear part of the note-sheet, means for imparting step-by-step motion to the driving-roll at each depression of
 105 the keys, spring-arms for supporting said guide-roll, an endless note-sheet placed around the driving-roll and guide-roll, and a key-plate having a longitudinal slot located in front of the note-sheet.

3. The combination, with a keyed musical instrument, of a keyboard containing leading
 110 keys and accompanying chord-keys, a driving-roll located adjacent to the leading keys, means for imparting a step-by-step motion to the driving-roll at each depression of the keys, a guide-roll at the rear of the driving-roll, spring-arms for supporting said guide-roll, an endless note-sheet placed around the
 115 driving-roll and guide-roll, a transverse bar supporting the spring-arms, means for adjusting the spring-arms on the cover of the instrument for adjusting the tension of the note-sheet, and a key-plate having a longitudinal slot located in front of the note-sheet.

4. The combination, with a keyed musical instrument, of a key-board composed of lead-
 120 ing keys and accompanying chord-keys, a key-bar extending transversely below the keys, a pivoted and spring-actuated frame
 130

provided with downwardly-extending front-arms for suspending the key-bar, a driving-roll located adjacent to the leading keys, a pawl and ratchet-mechanism between the driving-roll and the key-bar supporting frame for imparting a step-by-step motion to the driving-roll at each depression of the key, a guide-roll supported back of the driving-roll, an endless note-sheet extending around the driving and guide-rolls, means for adjusting the tension of the note-sheet, and a key-plate arranged in front of the note-sheet and above the keys and provided with a longitudinal slot for permitting the reading off of the notations on the note-sheet.

5. The combination, with a keyed musical instrument, of a key-board composed of lead-

ing keys and chord-keys, a key-bar extending transversely below the keys, a pivoted and spring-actuated frame provided with downwardly-extending front-arms connected with the key-bar, and means between the casing of the instrument and said pivoted frame, for locking the latter in lowered position and holding the key-bar out of contact with the keys.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

JOHN PARDUBA.

Witnesses:

PAUL GOEPEL,
HENRY J. SUHRBIER.