

No. 887,811.

PATENTED MAY 19, 1908.

L. A. JAROS.

MECHANICAL MUSIC LADDER FOR TEACHING NOTES.

APPLICATION FILED JAN. 17, 1908.

Fig. 1.

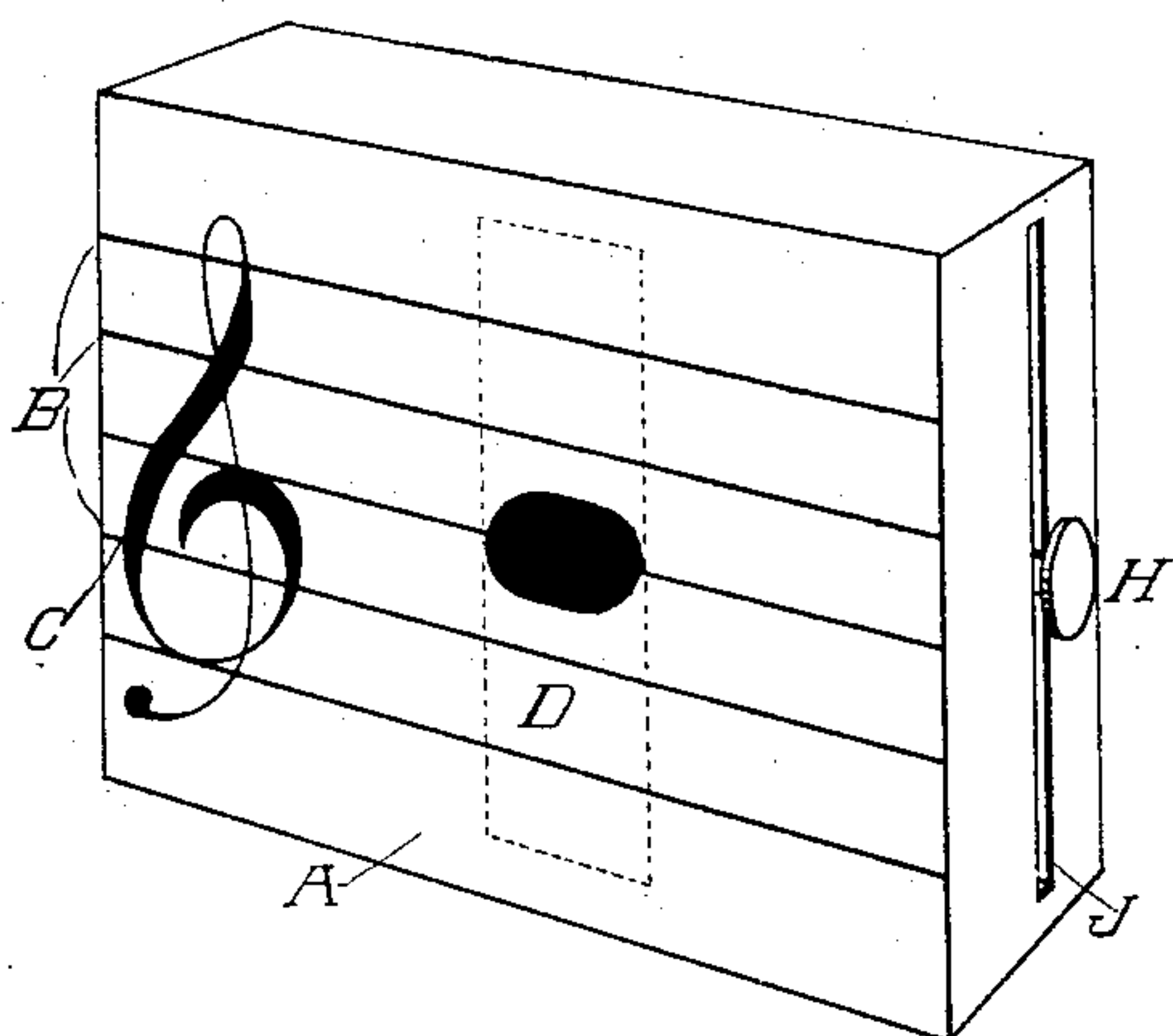


Fig. 3.

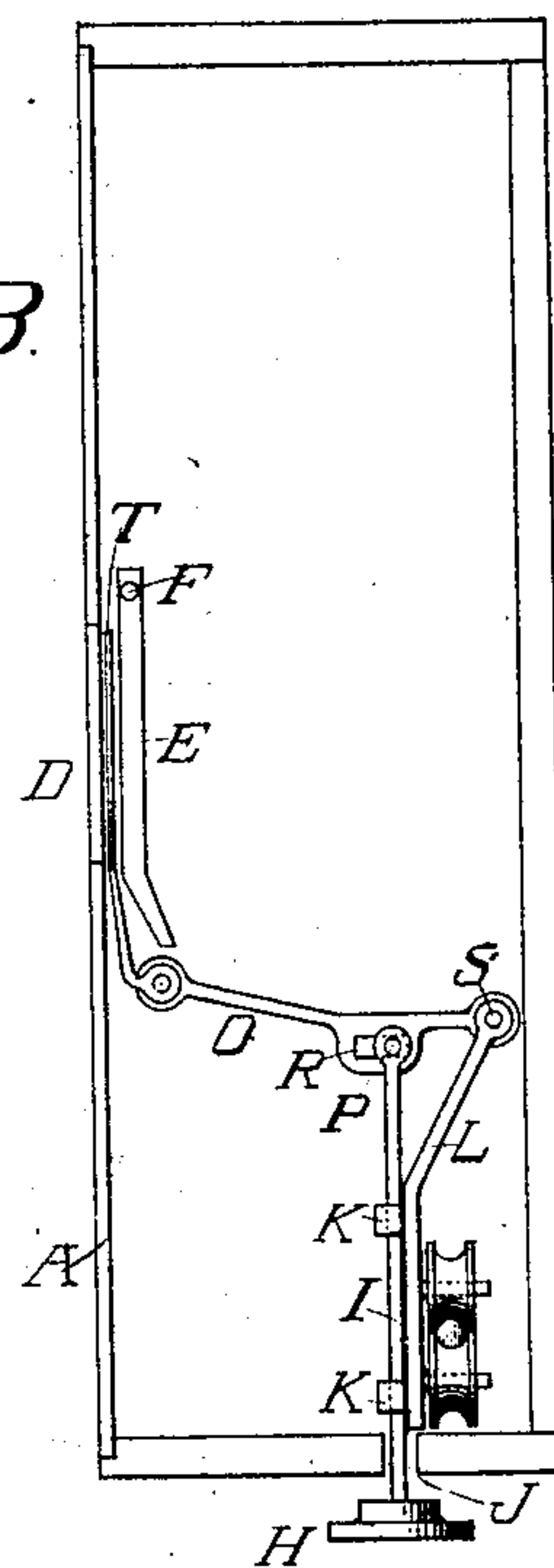


Fig. 2.

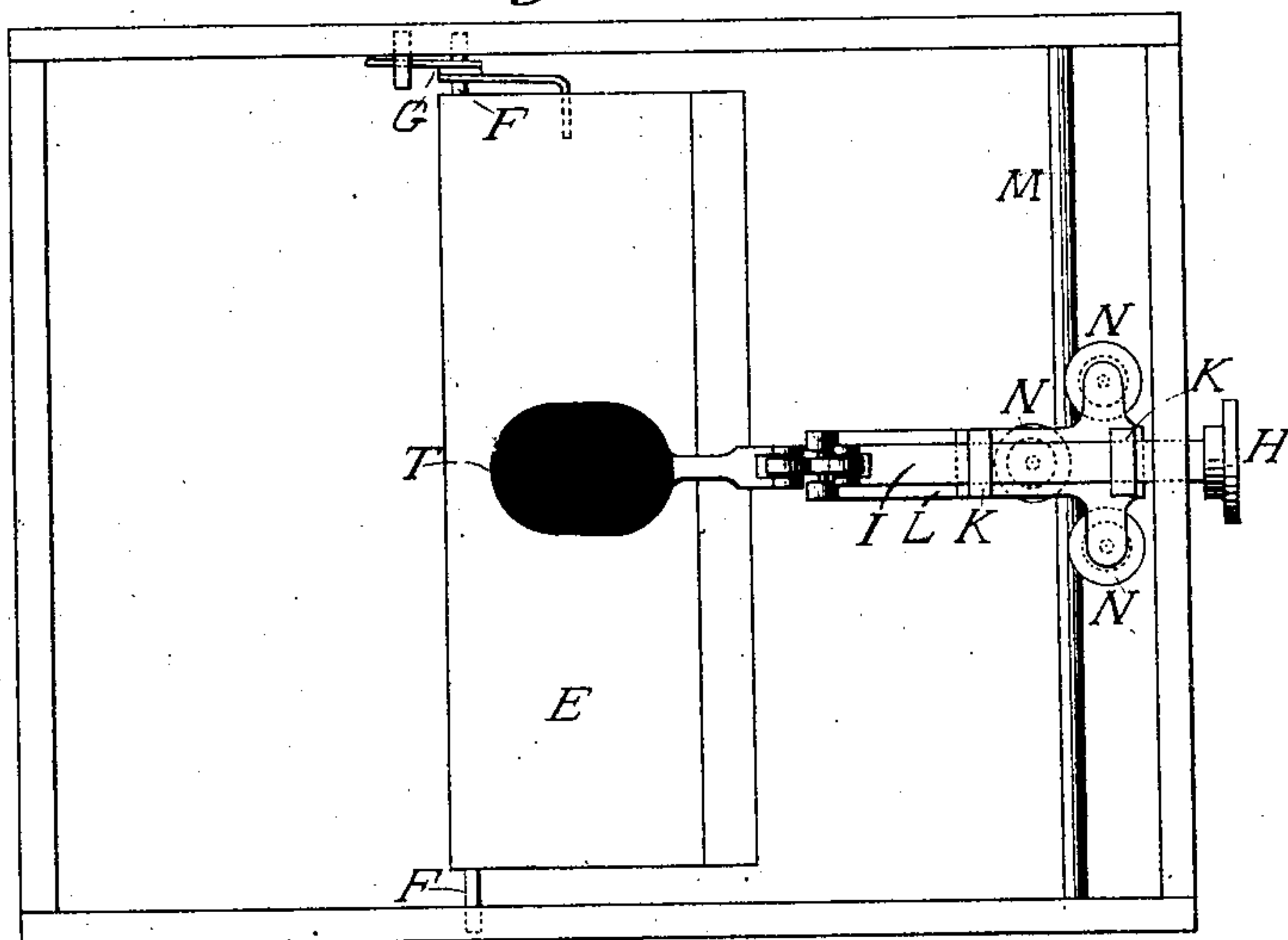
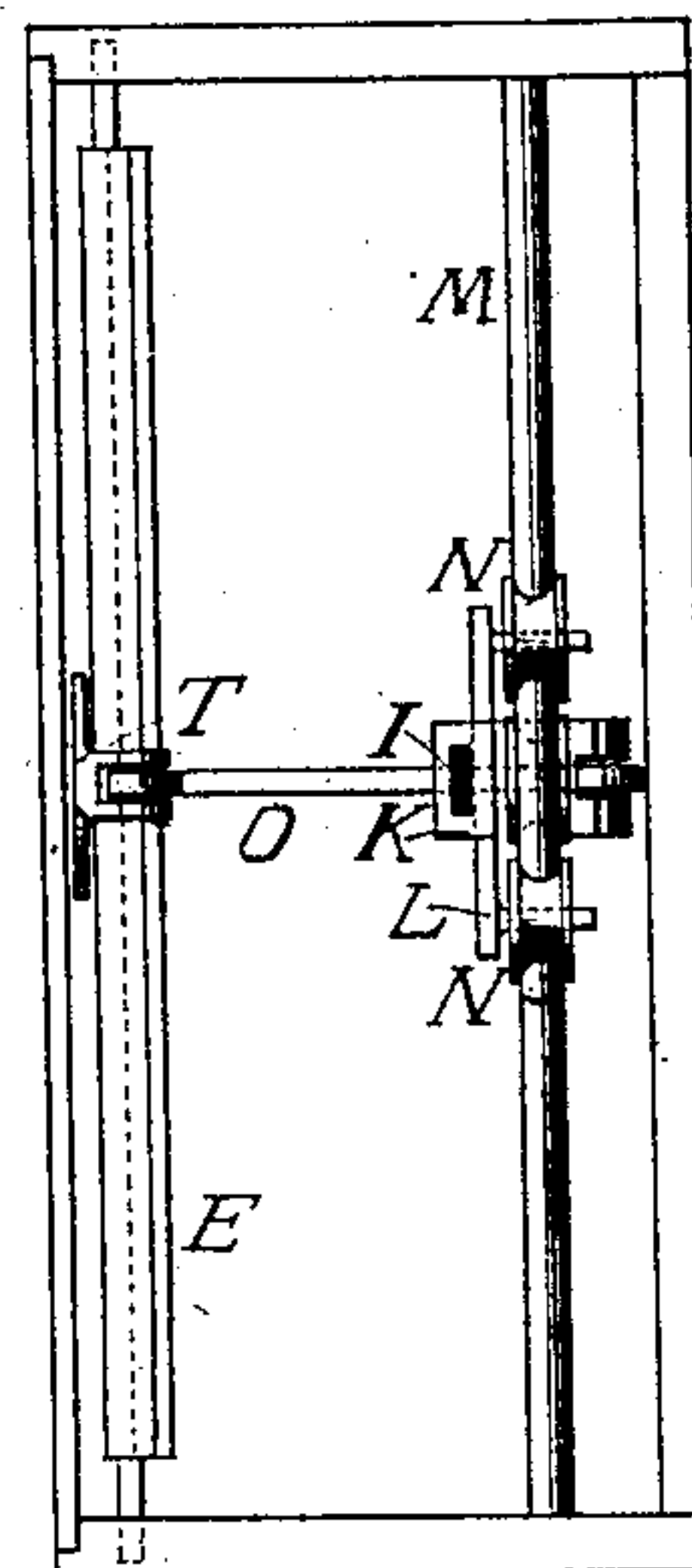


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

LADISLAW A. JAROS, OF CHICAGO, ILLINOIS.

MECHANICAL MUSIC-LADDER FOR TEACHING NOTES.

No. 887,811.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed January 17, 1908. Serial No. 411,303.

To all whom it may concern:

Be it known that I, LADISLAW A. JAROS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Mechanical Music-Ladder for Teaching Notes, of which the following is a specification.

This invention relates to automatic music ladders and has for its object to simplify and improve the construction and produce a device of this character which will be efficient and easy of operation.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages.

In the drawings thus employed, Figure 1, is a perspective view of the device when complete in case; Fig. 2, a front elevation with the face of the case removed; Fig. 3, a plan view with the top of the case removed; Fig. 4, an end elevation with the end of the case and the handle H, removed.

The mechanism is embodied in a rectangular case consisting of a top, bottom, sides, back and face. The face A, is colored white and has upon it the staff B, and clef C. That section of the said face A, within the dotted lines, marked D, (see Fig. 1), is made of glass or some other transparent material and has behind it the plate E. The said plate E, is made to swing backward on the centers F. and F. (see Figs. 2 and 3), but is held against the transparent section D. by means of spring G. The said plate E. is colored white and its object is to make the said transparent section D. appear similar to the whole of the said face A. In other words the said plate E. will be seen through the transparent section D. and the entire face will appear opaque and uniform in color.

The handle H. has rigidly secured to it the slide bar I. which passes loosely through the

case by means of aperture J. (see Figs. 1 and 3), and is allowed to slide loosely inward and outward by virtue of its bearings K. and K. on carriage L. The said carriage L. travels up and down on the shaft M. by virtue of the wheels N. The inner extremity of the said slide bar I. is attached to arm O. (see Fig. 3), by means of pin P. and slot R. The said arm O. swings on the carriage L. at S. The free end of the said arm O. has hinged to it the disk T. The said disk T. is made of any suitable material and is colored black. It will now be seen that when the handle H. is pulled outward, from the position shown in Fig. 3, the slide bar I. will swing arm O. to the right by means of pin P. and slot R. drawing the disk T. from between the transparent portion D. of face A. and the plate E. After the disk T. is thus withdrawn it can be raised or lowered to any desired line or space of staff B. by a pressure upward or downward on the handle H. The said pressure will be transmitted to the carriage L. by means of the slide bar I. and will cause the said carriage L. to travel along the shaft M. to the desired elevation, carrying arm O. and disk T. with it. (See Fig. 2.) In other words by raising or lowering the handle H. the carriage L. will travel correspondingly along the shaft M. carrying the arm O. and disk T. to the said desired elevation. After thus bringing the said disk T. to the desired elevation, a pressure inward on handle H. will cause slide bar I. to swing arm O. to the left by means of pin P. and slot R. and the said arm O. will insert the disk T. between the transparent section D. of face A. and the plate E. thus presenting a note on the staff B.

Claims.

1. In a device of the class described a case or box having a face, a section of which is made of glass or some other transparent material, a staff and clef on the said face, a plate behind the said transparent section, a member to be inserted between the said transparent section and the said plate, the said member being of a size and shape to represent a note on the said staff, and means for inserting the said member, substantially as described.
2. In a device of the class described a case or box having a face, a vertical section of which is cut out and replaced with glass or some other transparent material a staff and clef on said face, a disk to represent a note, a member behind the said transparent section to make the said transparent section appear

opaque and uniform in color with the whole of the said face and means for inserting the said disk between the said transparent section and the said member, substantially as described.

3. In a device of the class described a case or box having a face, a vertical section of which is cut out, a staff and clef on the said face, a disk representing a note, a member behind the open section of said face to be a background to the said disk and means for elevating the said disk to the several lines and spaces of the said staff, substantially as described.

4. In a mechanical music ladder for teaching notes, the combination of a case or box having a face, a vertical section of which is made of glass or some other transparent material, the said face having a staff thereon, with a plate behind the said transparent section, a member to be inserted between the said transparent section and the said plate, the said member being of a size and shape to represent a note on the said staff and means for inserting the said member substantially as described.

5. In a mechanical music ladder for teaching notes, the combination of a case or box having a face, a vertical section of which is made of glass or some other transparent material, the said face having a staff thereon,

with a card behind the said transparent section the said card being of a size and shape to represent a note on the said staff and a member for forming a background to the said card substantially as described.

6. In a mechanical music ladder for teaching notes, the combination of a case or box having a face, a vertical section of which is made of glass or some other transparent material, the said face having a staff thereon, with a member for forming a background to the said transparent section, a card to be inserted between the said transparent section and the said member for representing a note, an arm supporting said card, a carriage for elevating said arm, wheels or rollers by means of which the said carriage is mounted, a guide shaft or guide rail upon which the said rollers travel, a slide bar, a suitable aperture in the said case or box through which the said slide bar passes, and a handle on the said slide bar, substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 14th day of January, 1908, at Chicago, Illinois.

LADISLAW A. JAROS.

Witnesses:

MAX SCHULZ,
OTAKAR J. BRABEC.