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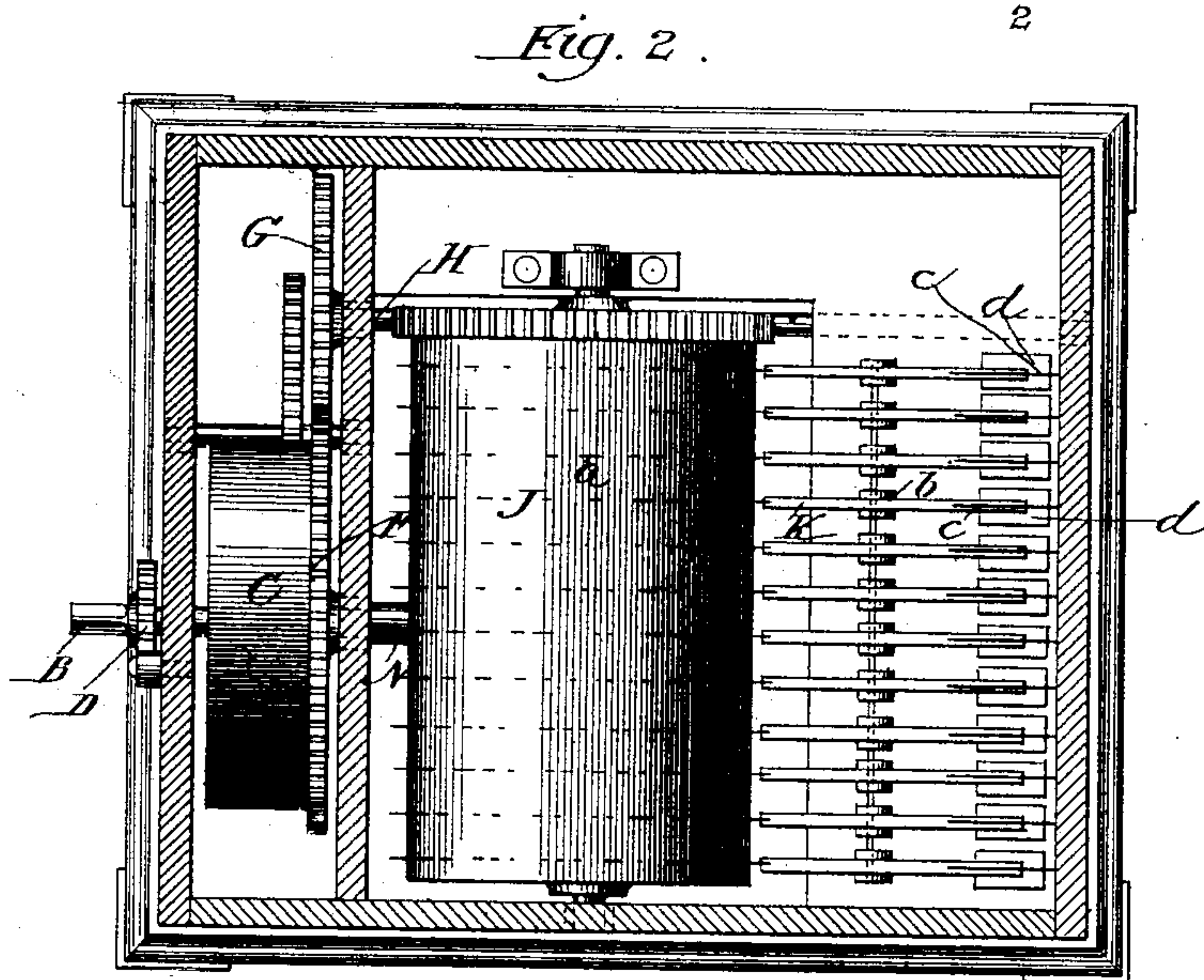
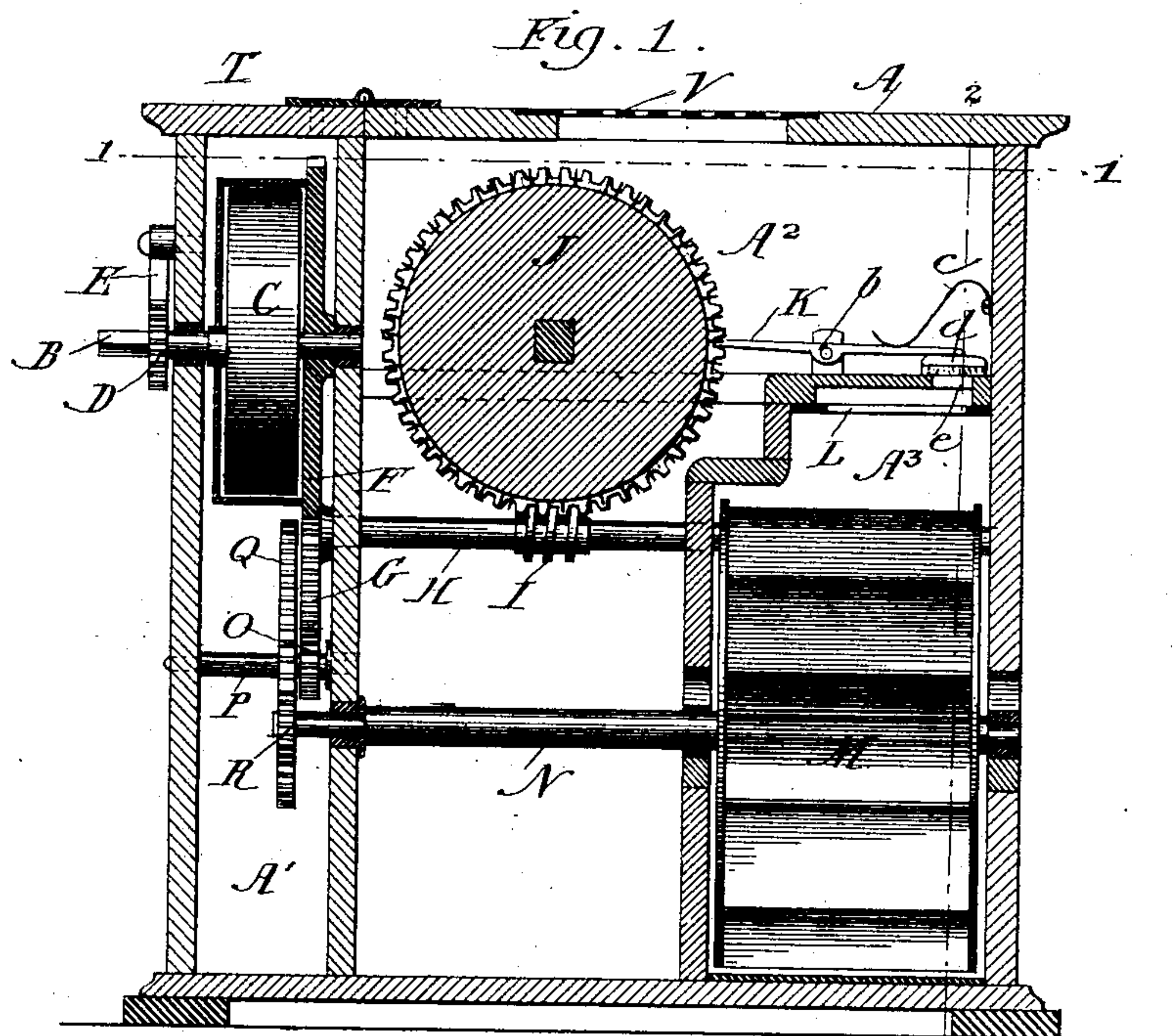
2 Sheets—Sheet 1.

T. MEINHOLD.

MECHANICAL MUSICAL INSTRUMENT.

No. 329,473.

Patented Nov. 3, 1885.



Witnesses:

Frank Blanchard
M. J. Clayton

Inventor:

Theodore Meinhold
By Wm H. Lott
Attorney

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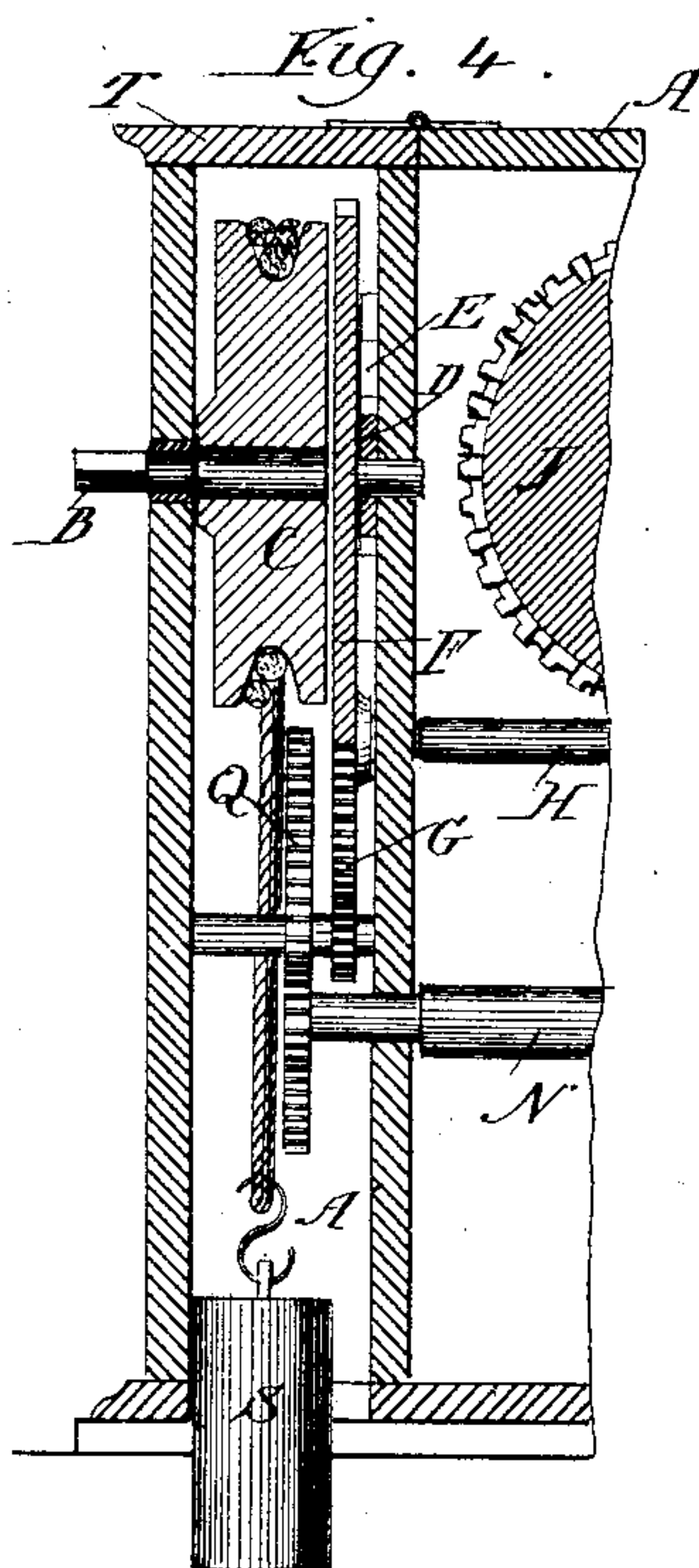
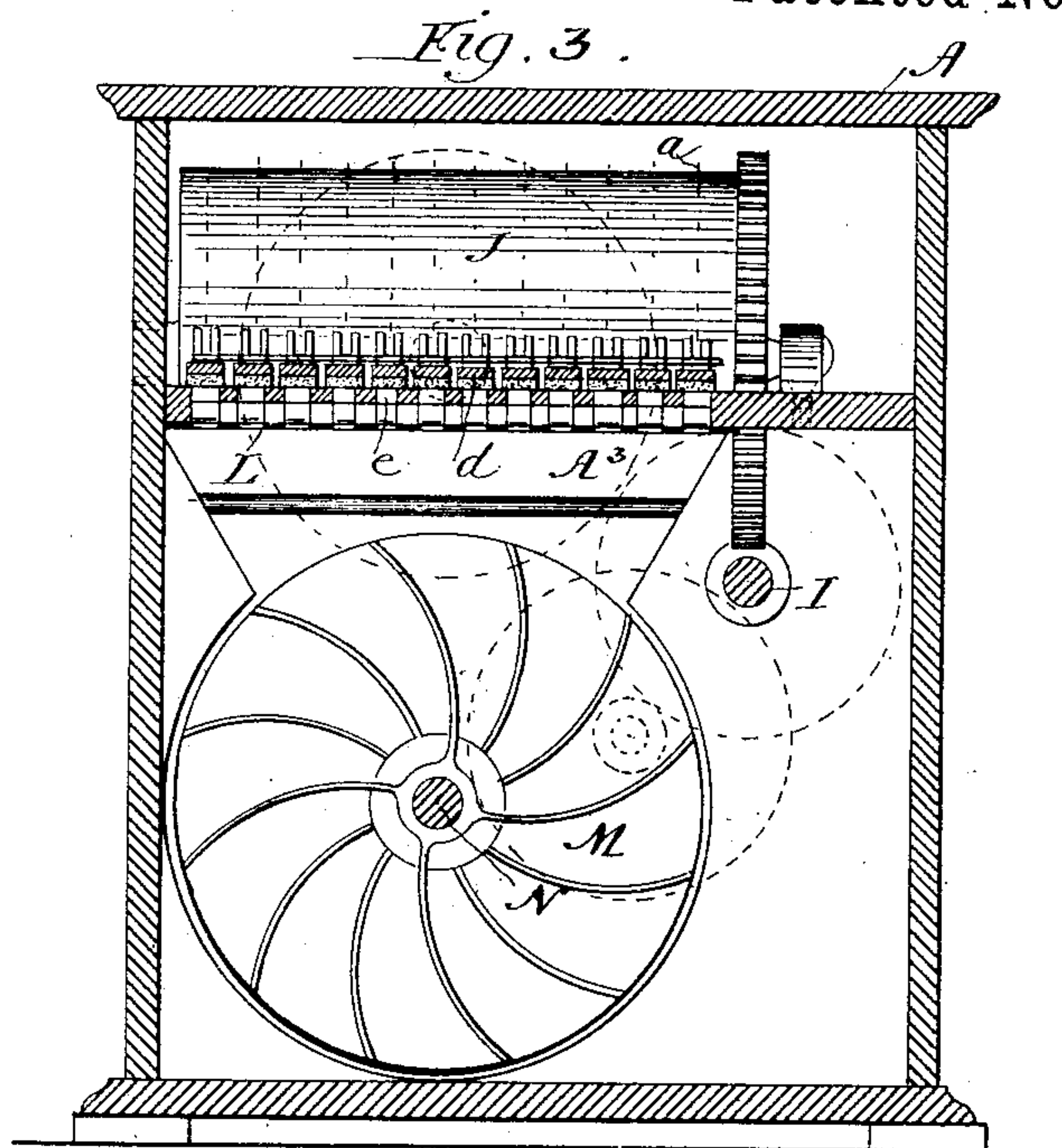
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MECHANICAL MUSICAL INSTRUMENT.

No. 329,473.

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Witnesses:
Frank Blanchard
W. J. Chappell

Inventor:
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By Wm H. Lotz
Attorney:

UNITED STATES PATENT OFFICE.

THEODORE MEINHOLD, OF KLINGENTHAL, SAXONY, GERMANY.

MECHANICAL MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 329,473, dated November 3, 1885.

Application filed June 24, 1884. Serial No. 135,856. (No model.)

To all whom it may concern:

Be it known that I, THEODORE MEINHOLD, a subject of the Emperor of Germany, residing at Klingenthal, in the Kingdom of Saxony and Empire of Germany, have invented certain new and useful Improvements in Music-Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 My invention relates to an improved music-box, autophone, or other similar small reed instrument. In these instruments there is provided a barrel rotated by a spring or weight and carrying a number of pins, which upon
15 the rotation of said barrel trip a row of vibrating tongues situated over the reeds; or a perforated ribbon is provided to form the different notes, as will be understood.

Heretofore in the construction of these instruments it has been necessary to provide a
20 fly-wheel or regulator to render the speed of the barrel uniform, the air to be fed to the reeds being provided from a bellows.

The object of this invention is to provide
25 air-feeding mechanism, which will also serve as a regulator for the barrel, and further to improve and simplify the general construction and arrangement of the instrument; and to the accomplishment of the above the invention
30 consists of the novel devices and combination of devices, as will be described and claimed.

Reference will be made to the accompanying drawings, in which Figure 1 is a vertical
35 sectional view through the instrument; Fig. 2, a sectional plan view on line 1 1 of Fig. 1; Fig. 3, a section on line 2 2 of Fig. 1, and Fig. 4 a view showing the instrument as driven by a weight instead of a spring.

40 Like letters refer to like parts in each view.

A represents the box or casing, which is divided into three chambers, A^1 A^2 A^3 , for the purpose to be named. Through the outer
45 wall of compartment A^1 , and having end bearing in the wall separating that compartment from that marked A^2 , is the winding-stem B, carrying the spring C, and at a point near its outer end the ratchet D, with which a pawl,
50 E, engages. At a point near the inner end of

stem B there is mounted a cog-wheel F, which as the spring unwinds is revolved and meshes with a cog, G, to which motion is thus imparted. Cog G is keyed to one end of a shaft, H, at or about the center of which there is provided a worm, I, which, as clearly shown in
55 Fig. 1, meshes with suitable gearing mounted upon one end of the barrel J, to impart motion to said barrel. Barrel J is situated within the compartment A^2 , and in its revolution
60 the pins *a*, secured to its outer circumference, contact with and trip a series of vibrating tongues, K, pivoted at *b*, and held in position by springs *c*. At their outer ends tongues K are each provided with a mute, *d*, which are
65 adapted to close the openings *e*, situated over the vibrating ends of the reeds L. Reeds L are situated, as shown, in compartment A^3 , which forms the wind-chest of the instrument, and in which is situated a fan, M. This fan
70 is mounted upon a shaft, N, which has bearings in the frame-work of the box A, as shown, and which extends through compartment A^2 , with its end protruding into compartment A^1 . Motion is imparted to this shaft and the fan
75 through the medium of the following line of gearing: A pinion, O, meshes with the cog G, before referred to, and this pinion is mounted upon a shaft, P, upon which a cog, Q, is also mounted, said cog Q in its revolution mesh-
80 ing with a cog, R, keyed to shaft N. By this arrangement it will be seen that the fan is driven from the spring C, and that in its revolution, in addition to feeding air to the reeds, it acts as a regulator to the speed of
85 the barrel J.

In Fig. 4 I have shown the instrument provided with a weight, S, in place of the spring referred to.

Access may be gained to compartment A^1
90 through an opening in the top of the box covered by a hinged lid, T. An opening may also be formed in the top of compartment A^2 , over which a perforated plate, V, may be placed.

What I claim is—

95 1. In a mechanical musical instrument, the combination, with the driving mechanism, of a rotary air-feeding device operated by intermediate connections with said mechanism, and thus adapted to act as a speed-
100

regulator, substantially as and for the purposes set forth.

2. In a mechanical musical instrument, the combination of suitable driving mechanism, a revolving pin-studded barrel, a series of vibrating tongues, a series of reeds, and a rotary fan mounted on a shaft driven by intermediate gearing with the driving

mechanism, substantially as and for the purposes set forth.

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

THEODORE MEINHOLD.

Witnesses:

FRED. P. WILKIE,
FELIX SCHUBE.