

(No Model.)

4 Sheets—Sheet 1.

M. HOCK.

MECHANICAL MUSICAL INSTRUMENT.

No. 312,636.

Patented Feb. 24, 1885.

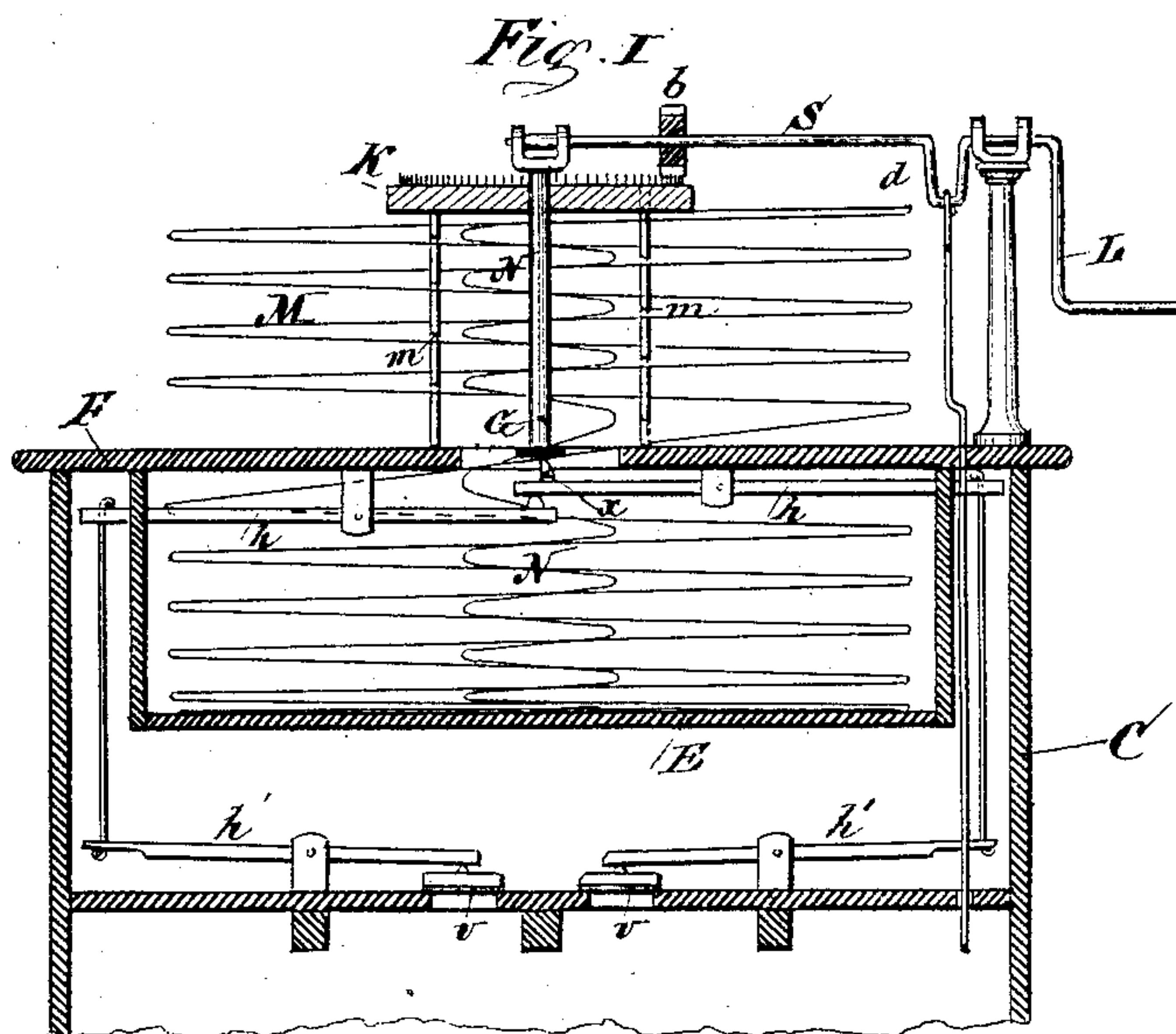
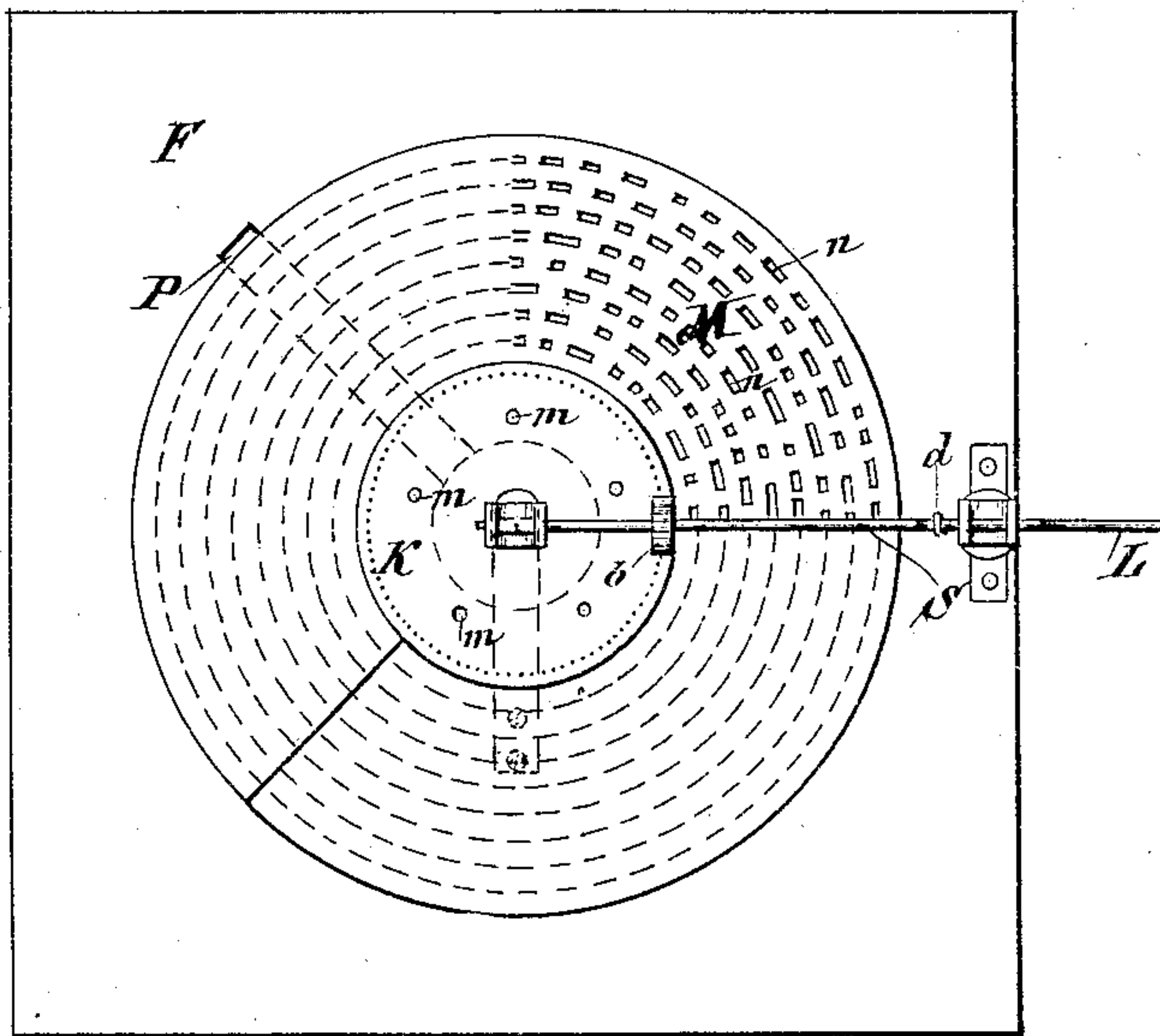


Fig. II.



Witnesses.
C. Pauls
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per Henry & Rander
Attorneys.

M. HOCK.

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Fig. III.

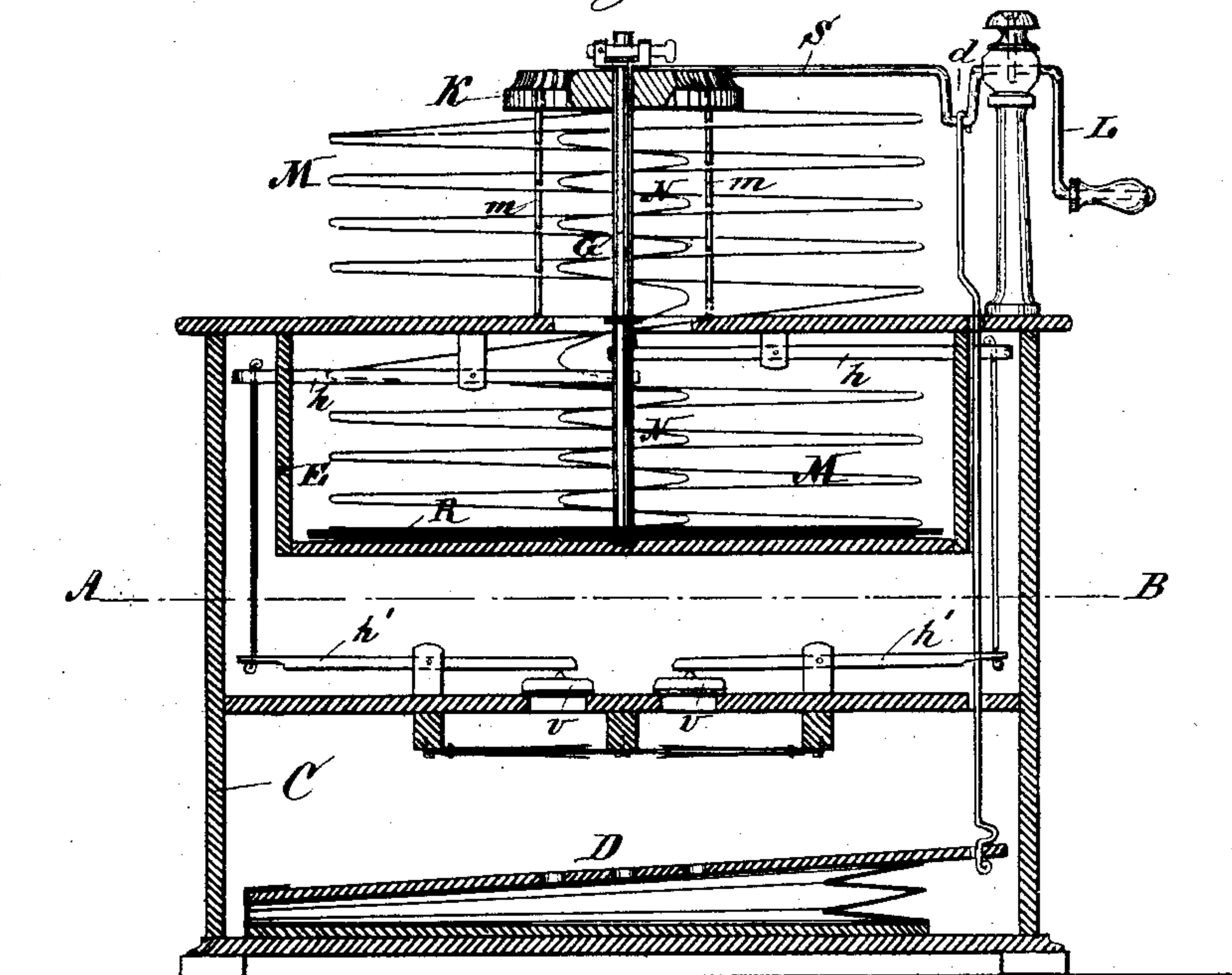
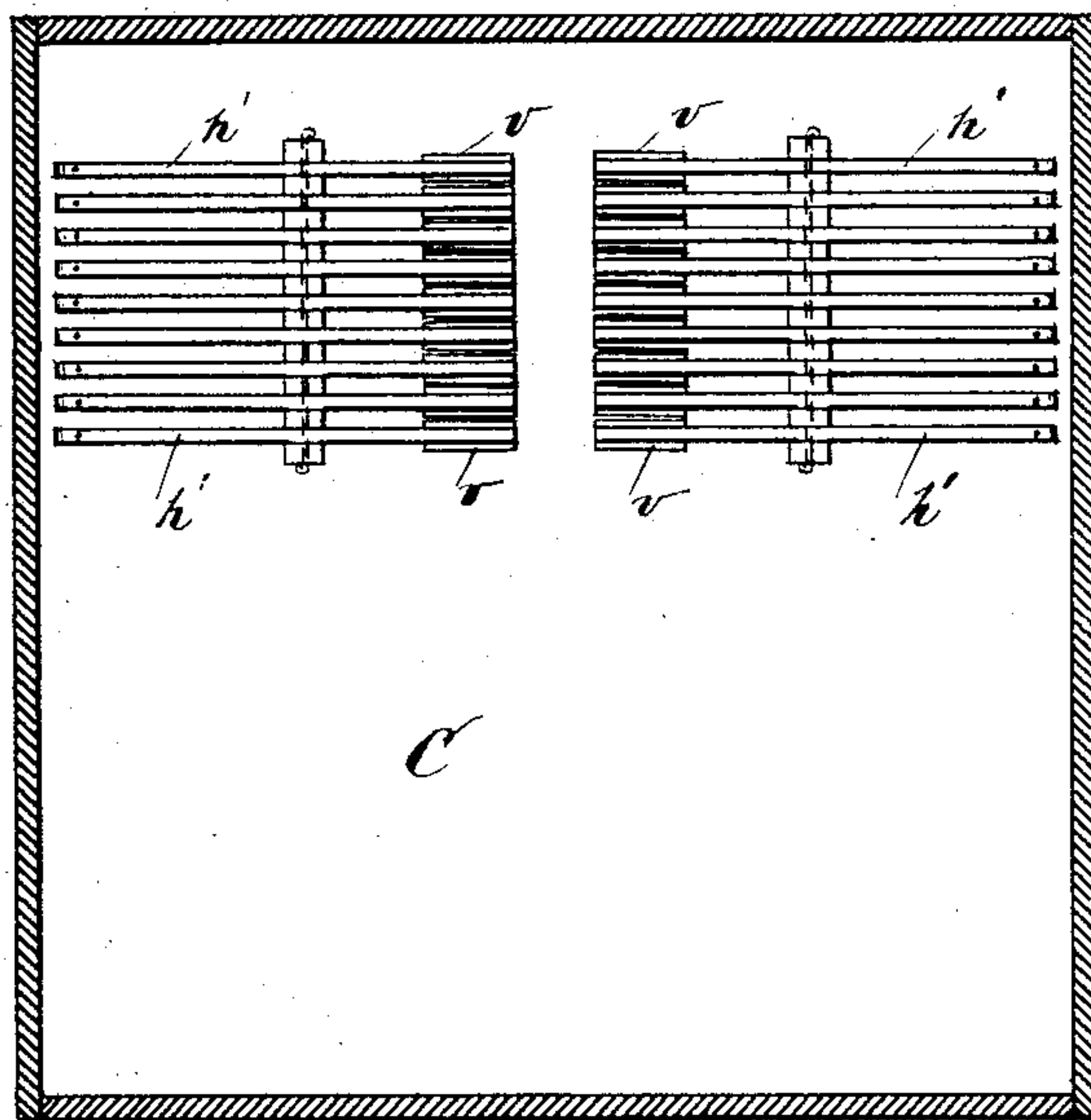


Fig. IV.



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Fig. V.

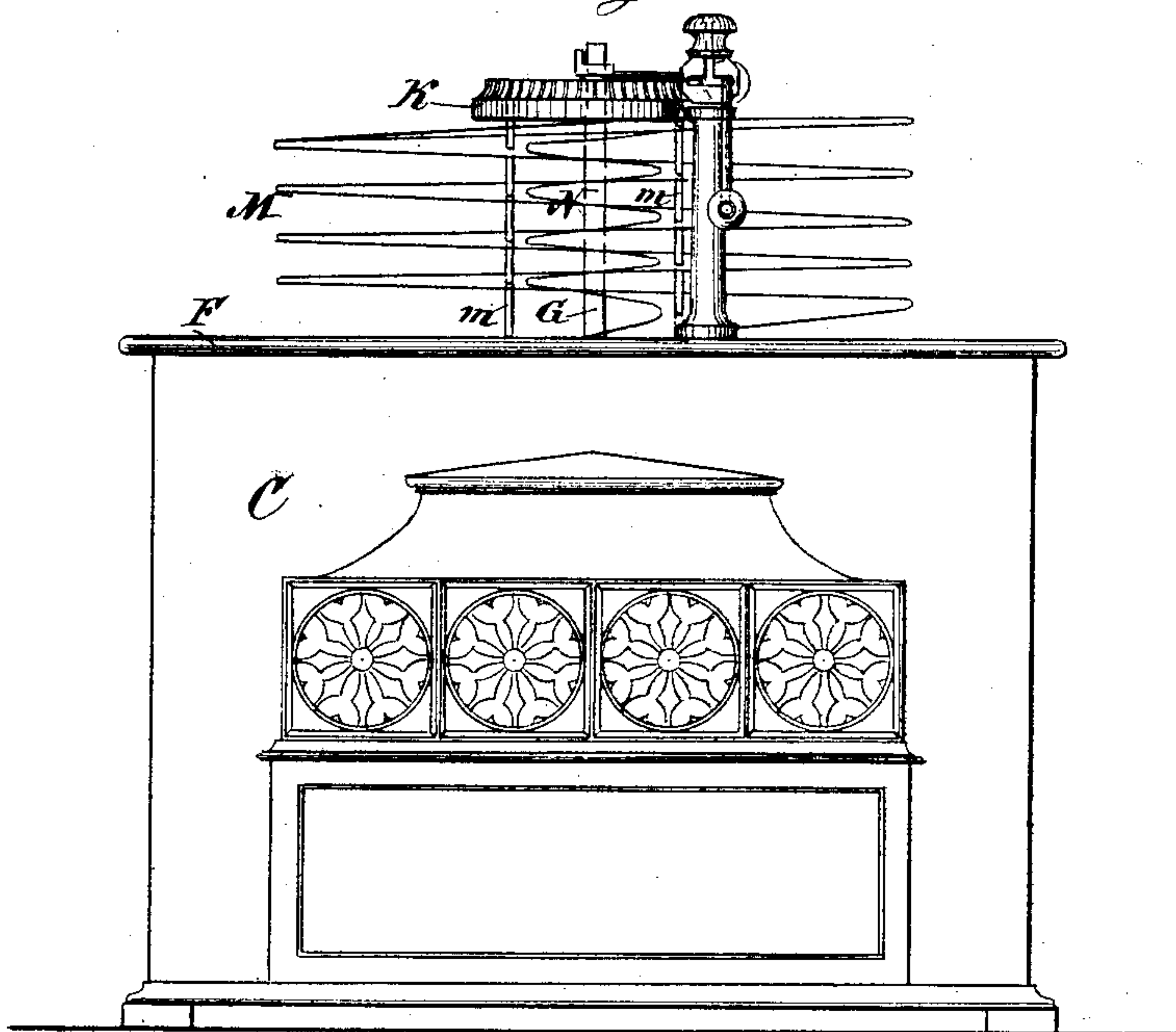
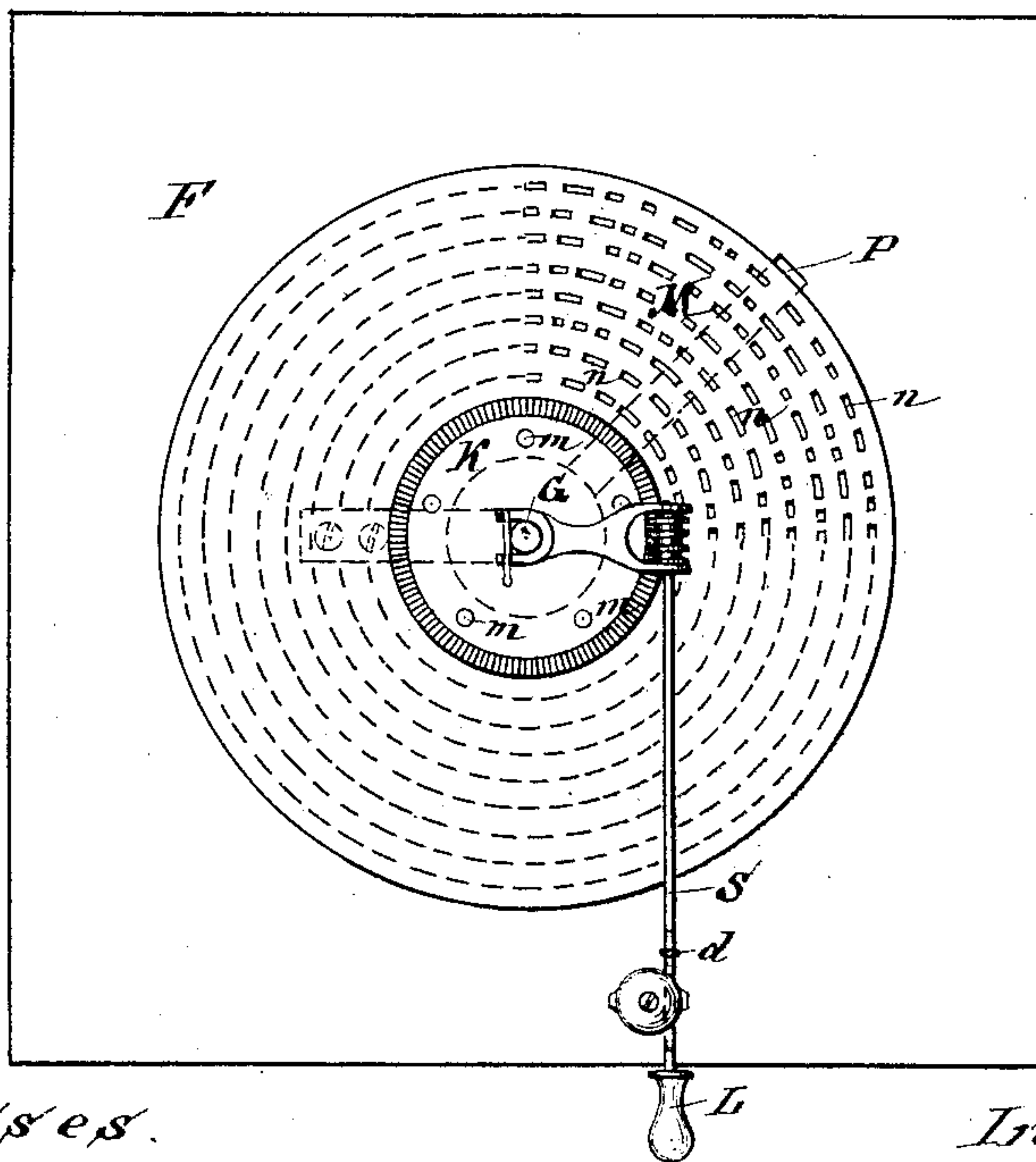


Fig. VI.



Witnesses.

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(No Model.)

4 Sheets—Sheet 4.

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Fig. VIII.

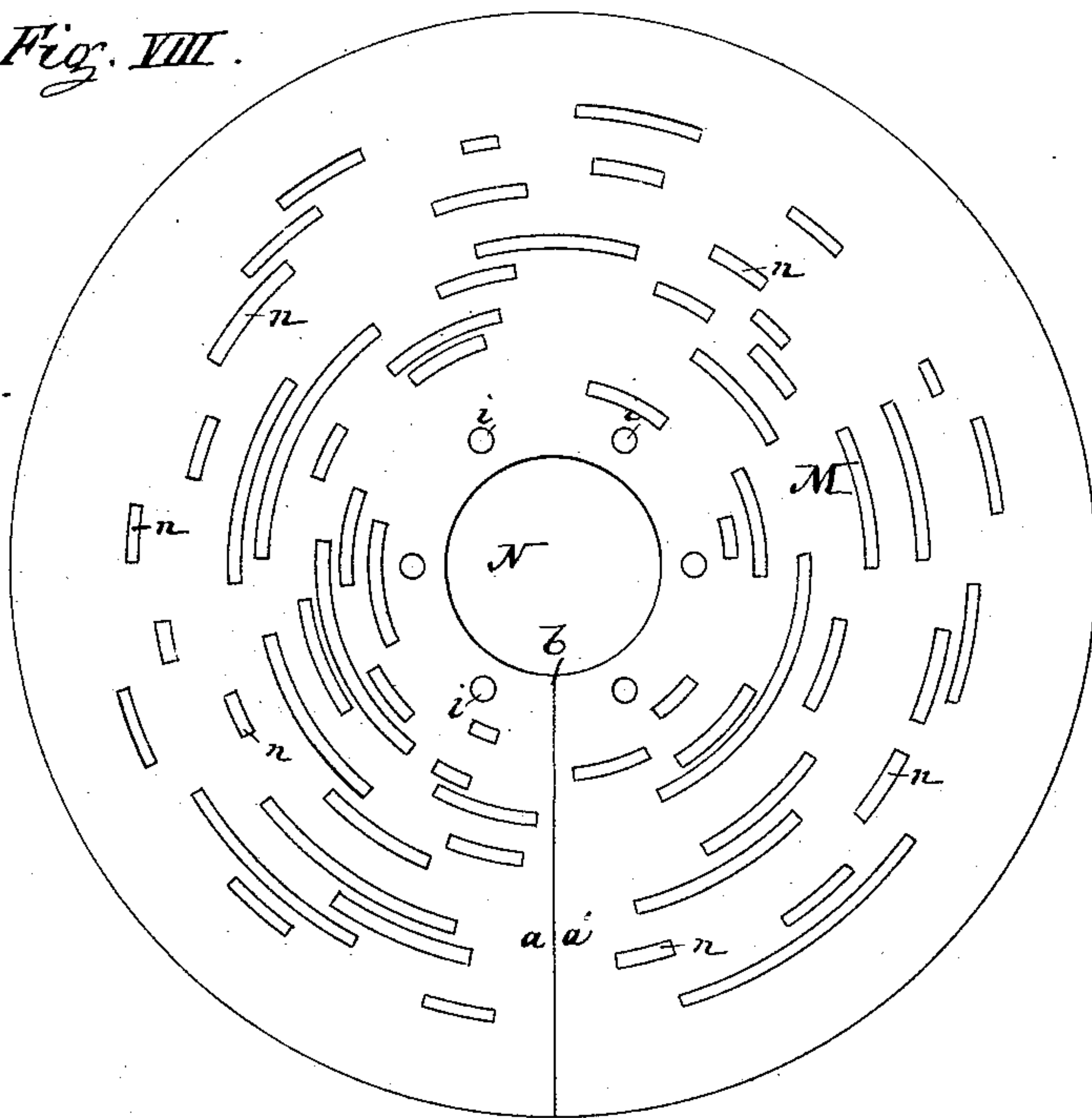
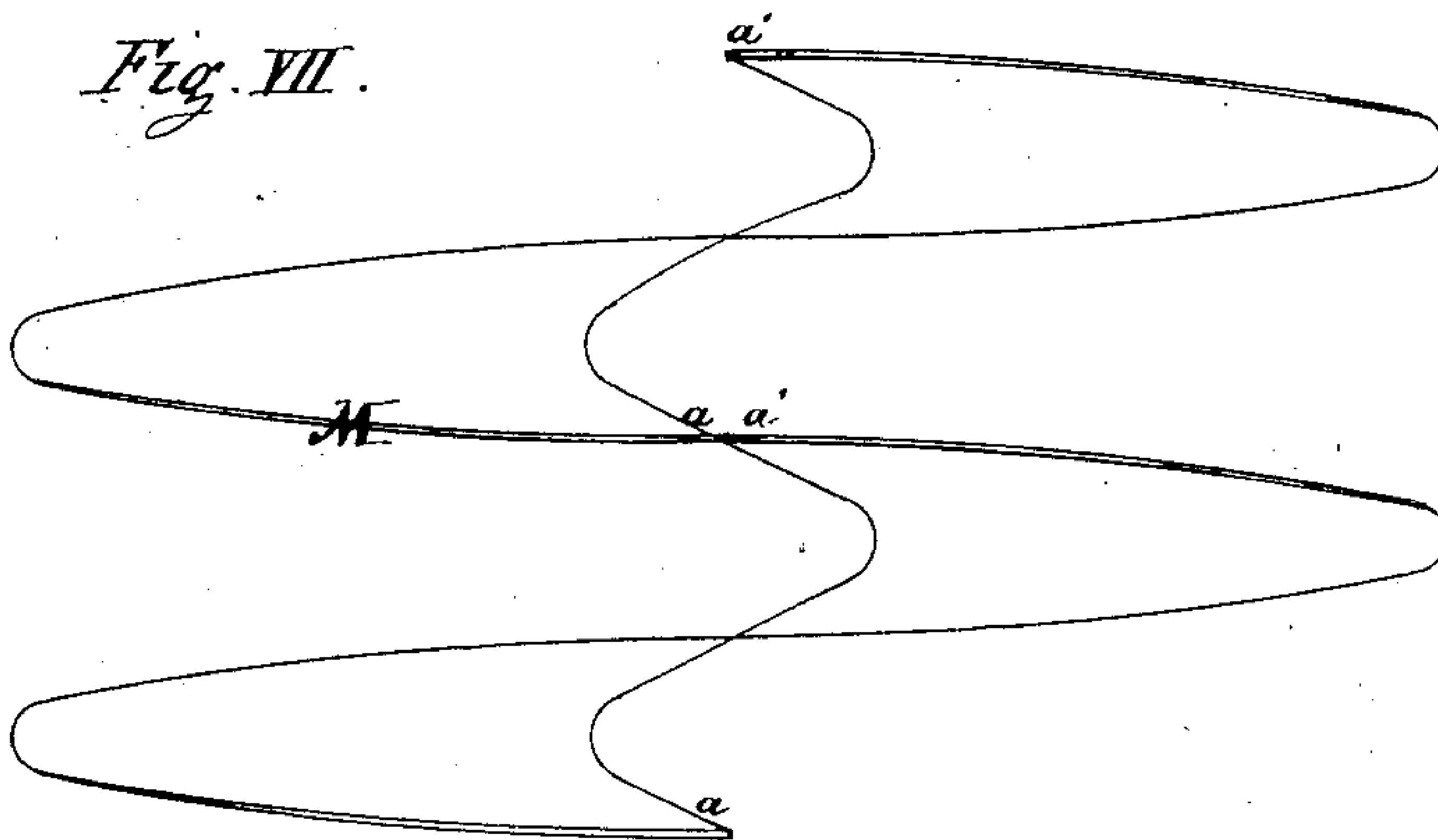


Fig. VII.



WITNESS:

C. L. Green
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INVENTOR

M. Hock

BY

Henry E. Hoader
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UNITED STATES PATENT OFFICE.

MAMERT HOCK, OF SAAR LOUIS, GERMANY.

MECHANICAL MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 312,636, dated February 24, 1885.

Application filed September 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, MAMERT HOCK, a citizen of Germany, and a resident of Saar Louis, in Germany, have invented a new and useful
5 Improvement in Perforated Music Sheets or Bands for Musical Instruments, of which the following is a specification.

In mechanical musical instruments difficulty is experienced with the perforated music sheets or bands through which the opening of the reeds is regulated, partly on account of their inefficiency to contain very long pieces of music and partly on account of the difficulty of unwinding these sheets or
10 bands regularly from their respective drums.

The nature of my invention consists in the arrangement of a spiral-shaped sheet or band in which the usual and necessary perforations are made, constructed similarly to the blades
20 of a screw, lying one above the other, and which sheet, while receiving a regular rotating motion, passes gradually into the case of the instrument and over the levers, which, by their working into and out of the perforations, operate the valves of the reeds in the desired manner.

In the accompanying drawings, Figure I represents a section of part of the instrument embodying my invention. Fig. II is a top
30 view of the same. Fig. III is a section of the instrument with wheel K partly broken away, showing a different plan of turning the spiral music-sheet. Fig. IV is a horizontal section at line A B, Fig. III, showing the position of the reed-valves. Fig. V is a side view of the machine represented in Fig. III. Fig. VI is a top view of the same; and Figs. VII and VIII represent a side view and plan of the spiral music bands or sheets at an enlarged
40 scale.

Similar letters represent similar parts in all the figures.

C represents the case of the instrument, in the lower part of which the reed-valves *v v*,
45 constructed in the usual manner, are arranged on one side of the box, as shown in Fig. IV. Below the reed-valves the usual bellows, D, are arranged, operated from a crank, *d*, in the shaft S.

50 *h h'* are levers to operate the reed-valves *v*. E is a box inside the case to receive the mu-

sic-sheet after the same has passed the levers *h* and passed into the casing.

F is the cover of the case, having a central opening for the shaft G to pass through to its
55 end support, attached to the under side of the cover F. The upper end of the shaft or stand G supports the end of the horizontal shaft S, provided with a crank, *d*, for operating the bellows D, and with a pinion, *b*, meshing into
60 suitable teeth or projections on the wheel K, turning freely on the shaft or stand G.

L is a crank for operating the shaft S.

M is the music sheet or band, shaped spirally, similar to a screw-blade, having a central
65 opening, N, for the shaft or stand G to pass through. This music-sheet M is formed of any required number of disks of the desired diameter and the necessary central hole, N. These disks are cut through at one part, *b*,
70 where the edge *a'* of the lower disk is jointed to the edge *a* of the upper disk until the required length of music-sheet is obtained, whereby a regular spiral band or sheet will be obtained. This sheet or band M is provided
75 with the necessary perforations, *n*, corresponding with the music to be played, made in the usual manner. Near the central opening, N, holes *i*, Fig. VIII, are arranged, into which the carrying-pins *m*, attached to the under
80 side of the wheel K, fit, and by means of which this coil of the music sheet or band is turned around by the movement of said wheel K. In the cover F a longitudinal slit or opening, P, is made, through which the music-band passes
85 from the outside into the box E. This spirally-shaped music-sheet M is placed between the cover F and the under side of the wheel K, and made to enter through the slit or opening P, passing on the inside over the projecting
90 points *x* of the lever *h*, which, while passing into and out of the perforations *n* made in the spiral-shaped music-sheet M, operate the reed-valves *v* in the usual manner.

To assist the regular laying of the spiral
95 music-sheet in the box E, the shaft G may be made to turn with the wheel K and pass downward to the bottom of the box E, and be provided with a disk-plate, R, upon which the spiral music-sheet collects and will lay itself
100 in the regular spiral shape upon the same, said disk-plate R revolving at the same speed

as the upper part of the spiral music-sheet, and receiving the same as fast as blade after blade is unwound, and passes through the slit or opening P into said box E and upon this
5 disk R. (See Fig. III.)

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a mechanical musical instrument, a spiral-shaped music-band, M, provided with
10 suitable perforations, *n*, arranged in combination with levers to operate the reed-valves

of the instrument, substantially in the manner and for the purpose described.

2. In a mechanical musical instrument, the spiral music-sheet M, having holes *i*, in combination with the wheel K, carrying the pins
15 *m*, in the manner and for the purpose substantially as set forth.

MAMERT HOCK.

Witnesses:

WM. JACOBSON,
J. GRUND.