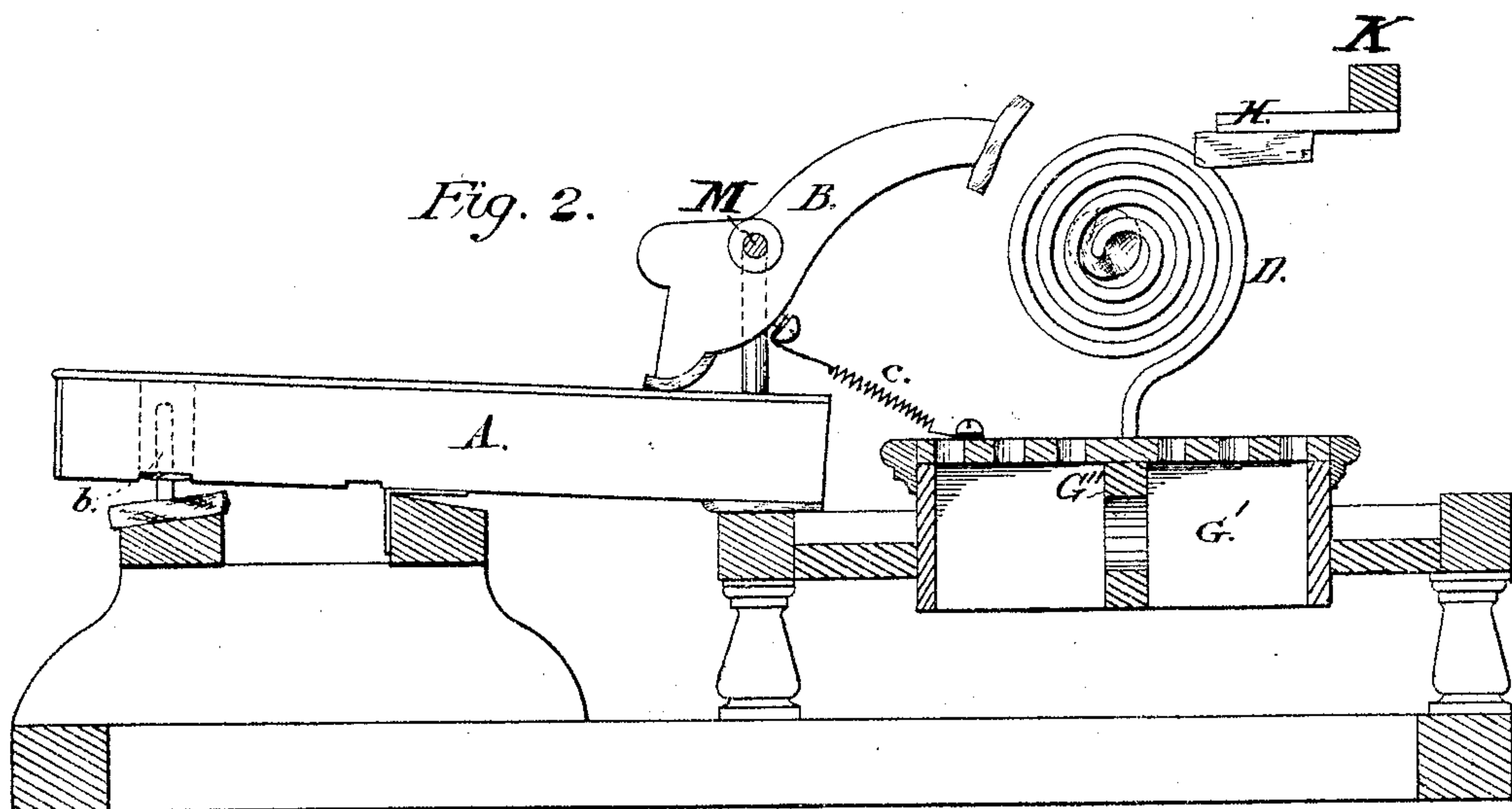
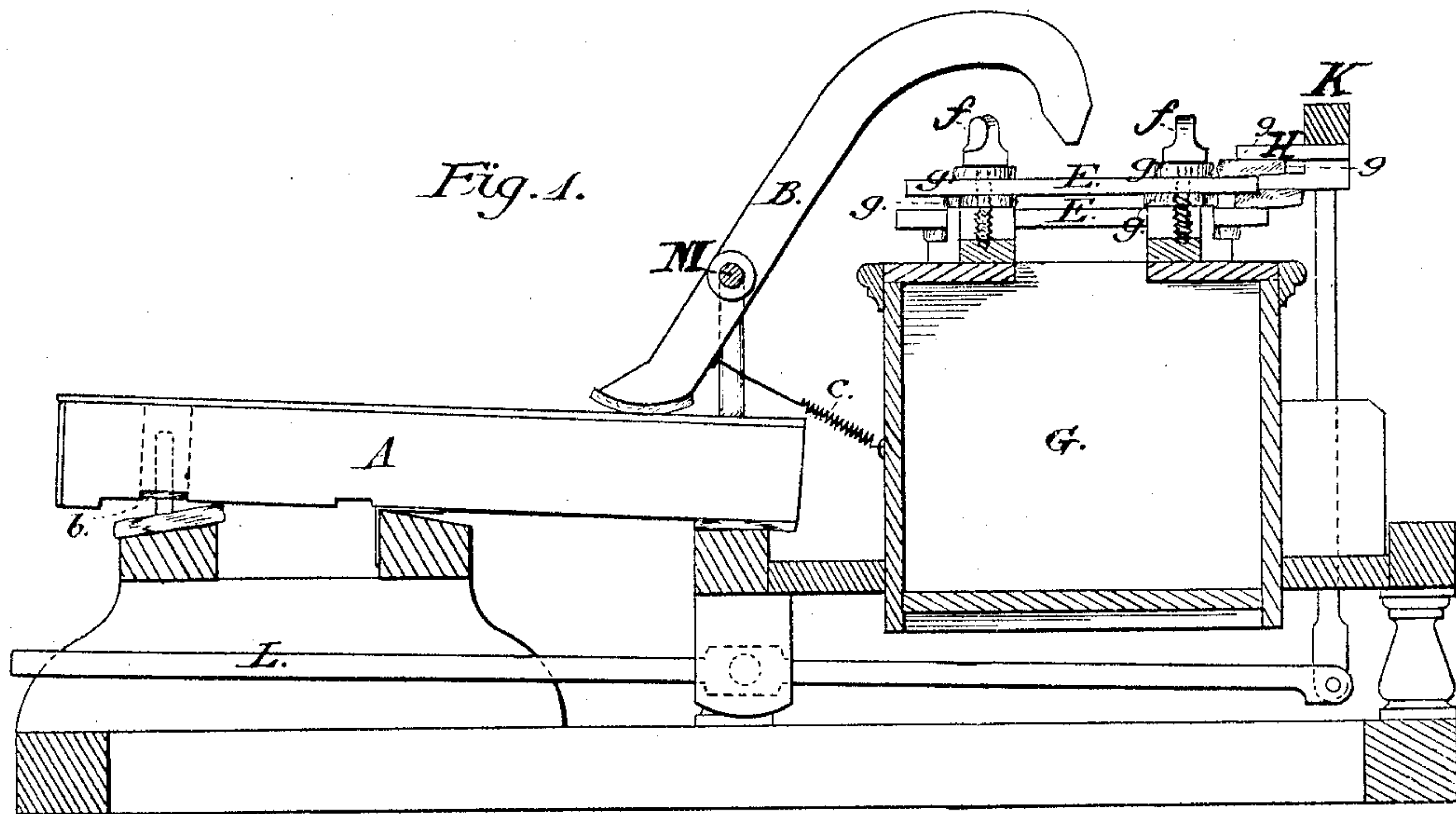


E. W. LINCOLN.
Reed-Organ Attachments.

No. 149,232.

Patented March 31, 1874.



Witnesses.

Gordon T. Kimball.
H. H. Burnham

Inventor.

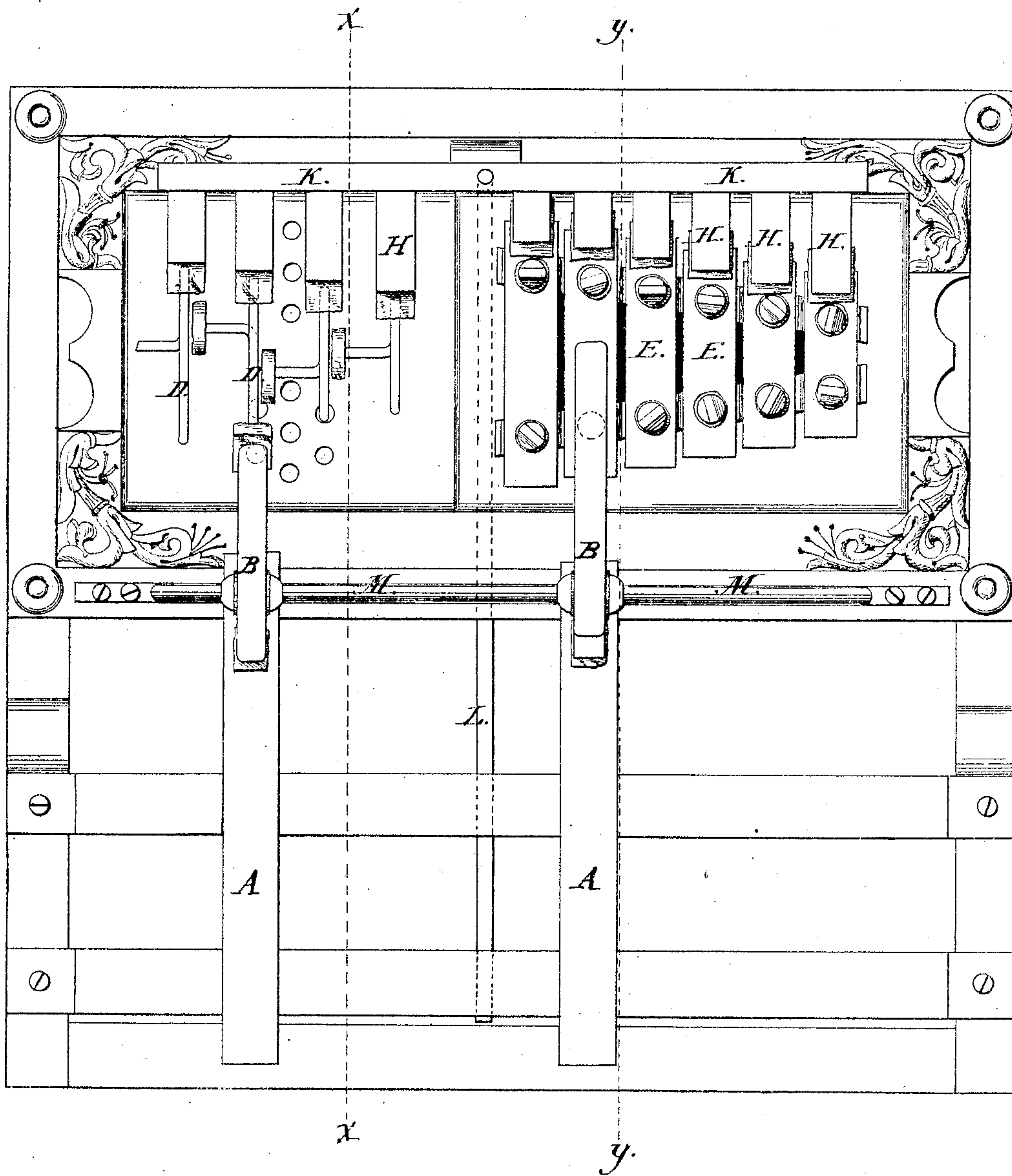
Elisha W. Lincoln.

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Fig. 3.



Witnesses.

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J. C. H. Burnham.

Inventor.

Elisha W. Lincoln

UNITED STATES PATENT OFFICE.

ELISHA W. LINCOLN, OF NORWICH, CONNECTICUT.

IMPROVEMENT IN REED-ORGAN ATTACHMENTS.

Specification forming part of Letters Patent No. **149,232**, dated March 31, 1874; application filed February 7, 1874.

To all whom it may concern:

Be it known that I, ELISHA W. LINCOLN, of Norwich, State of Connecticut, have invented a Combination of Bars and Coils Attached and Applied to a Reed-Organ, of which the following is a specification:

The nature of my invention consists in combining, in the same instrument, the bars and coils, which are played by hammers attached to the keys. The following is a clear and exact description of the construction and operation of the same, reference being had to the drawings making part of this specification, in which—

Figure 1 is a sectional view of key, operating-lever, and damper-bar, with their attachments. Fig. 2 is a section, showing a view of coil; Fig. 3, a plan view of the attachments as applied to a reed-organ.

A is the key; *b*, a pin extending into a slot in the key. B B are the hammers; *c c*, the coil-springs for throwing the hammers up from the bars or coils D. D is one of the sounding-coils; E E, metal bars; *f f*, keys or screw-pins to hold the bars upon and between pieces of felt, marked *g g*; G G', sections of sounding board or chambers, that portion adjacent to the bars E being higher and larger than the bass part. The reverse, however, may be the case. G is provided with a longitudinal par-

tition, G'', upon which the coils D are mounted. H H are damper-bars, carrying pieces of felt, and which are removed, so as to allow the coils and bars to sound unobstructed by them, by means of a frame, K K, and lever L, which may be operated by the pedal or not. M is a rod, on which hammers are pivoted.

The above is a description of my invention.

What I claim as new, and what I desire to secure by Letters Patent, is—

1. In a reed-organ attachment, the combination of the bars E, the sounding-chambers G G', and sound-coils D, all arranged to operate substantially as described and shown.

2. The series of hammers B, pivoted on a horizontal bar, M, and provided with the coil-springs *c*, substantially as shown.

3. The metal bars E, perforated at each end, in combination with the screw-pins *f* and felt or other cushions *g*, constructed and arranged to operate as set forth.

4. The double sounding-chambers G G', the latter provided with the partitions G'', upon which the coils are mounted, as shown and described.

ELISHA W. LINCOLN.

Witnesses:

GURDON V. KIMBALL,
H. H. BURNHAM.