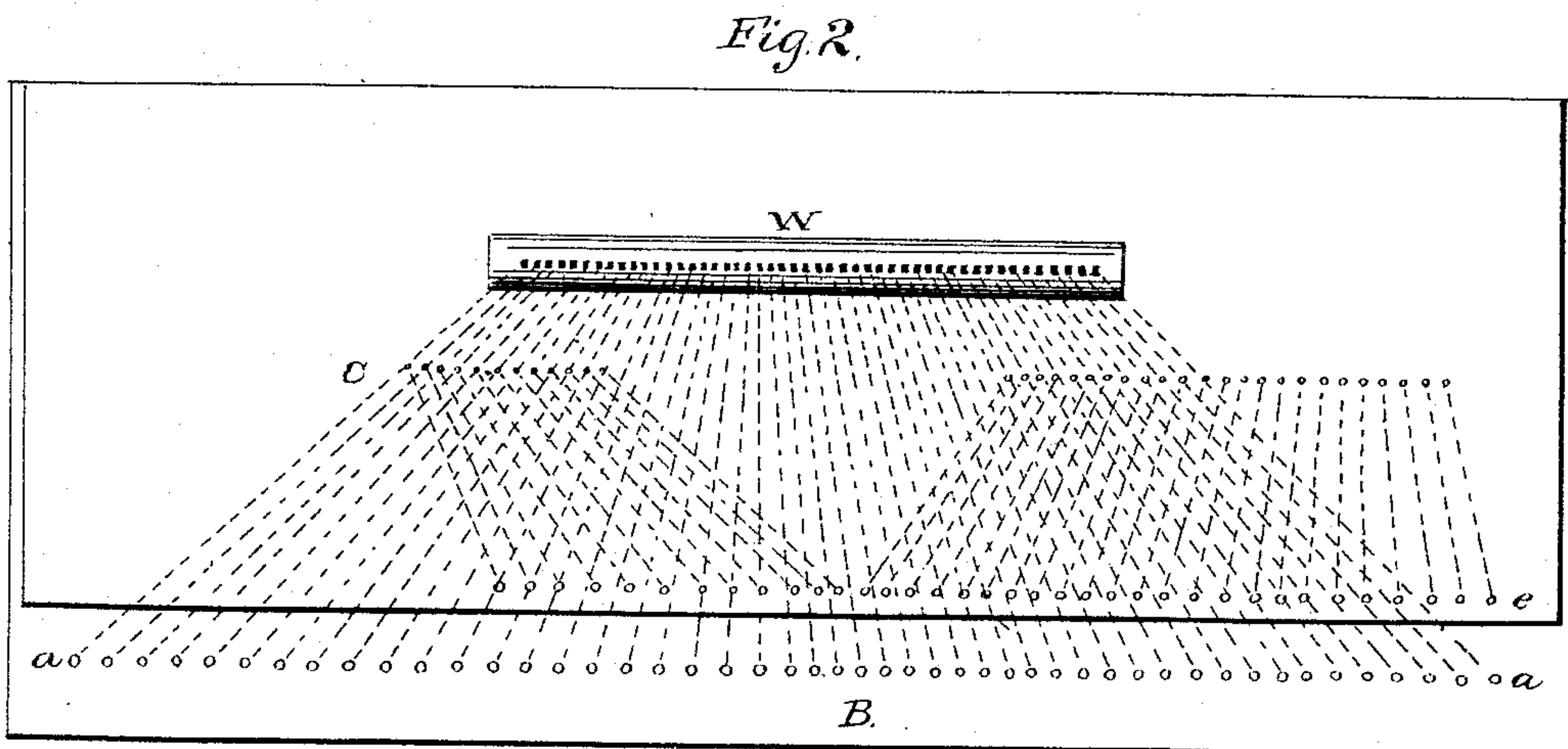
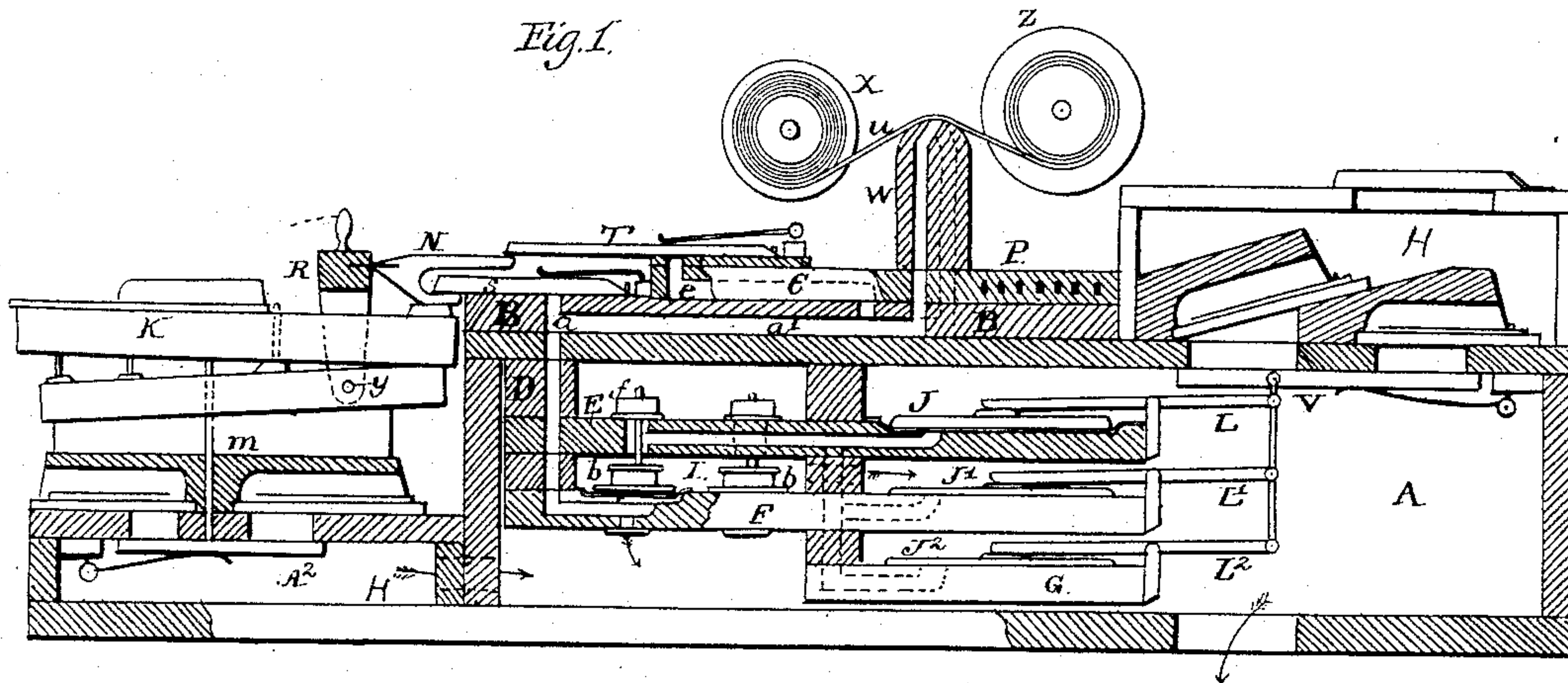


(No Model.)

M. GALLY.
MECHANICAL MUSICAL INSTRUMENT.

No. 409,678.

Patented Aug. 27, 1889.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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MECHANICAL MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 409,678, dated August 27, 1889.

Application filed March 12, 1888. Serial No. 266,966. (No model.)

To all whom it may concern:

Be it known that I, MERRITT GALLY, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Musical Instruments, of which the following is a specification, reference being had therein to the accompanying drawings.

In the accompanying drawings, Figure 1 is a transverse sectional view of an organ-action, showing the several parts of the invention in operating position; and Fig. 2 is a plan view of the tracker-range and groove-board.

The action is constructed and arranged to be operated both mechanically and manually. The mechanical operation is produced by means of the perforated music-sheet *n* through the tracker-range *W* and groove-board *B*, having inclosed grooves or ducts leading to the pneumatic action in the wind-chest *A*. In the pneumatic action the chamber *H* opens to the external atmosphere and the chamber *I* into the wind-chest *A*. The primary pneumatic valves *f b* operate the secondary pneumatic motors *j j' j''*, which are of similar construction to those of my patent of July 27, 1886, but are differently arranged, being placed in a horizontal position under the horizontal reed-valve *V*. The inclosed grooves *a a'* not only connect through the tracker-range *W* with the music-sheet *n*, but are also arranged to be opened and closed to the external atmosphere by means of the valves *S*, operated by the manual-keys *K*. Placed upon the groove-board *B* is a secondary groove-board *C*, having inclosed grooves *e*, leading into grooves of the board *B* and connecting with the external atmosphere through valves *T*, as shown in Figs. 1 and 2. The arrangement of the grooves is shown by the dotted lines of Fig. 2. Each valve *T* of Fig. 1 opens its duct *e* to a duct *a'* an octave above or below valve *S*, as the case may require, the valves *S* and *T*, when operated together, producing a coupling of the octaves.

In connection with the manual-key *K* is a

forked or duplex lever *N*, one fork of which operates valve *S* and the other valve *T*. The lever *N* is hinged to an oscillating bar *R*, hinged at *y* and provided with a handle for its movement. By drawing the bar backward a short distance the upper fork of lever *N* is withdrawn from connection with the valve *T*, and the coupling may thus be suspended or re-established at will by the forward and backward movement of bar *R*. A greater movement of the bar *R* will also connect or disconnect the lower fork of lever *N* with valve *S*, leaving the manual-key *K* operative only as to the independent manual action *m A*².

What I claim as my invention is—

1. The combination, with the tracker-range and the board having ducts leading therefrom to the operating pneumatic motors, of the manual-keys controlling openings into said ducts, and controlling also a second set of ducts not controllable from the ducts connected with the tracker-range, the parts being arranged and co-operating, substantially as described.

2. The combination, with the groove-board *B* and the octave groove-board *C*, having ducts, as described, of the manual-key and a shifting piece connected thereto, the shifting piece in one position controlling both ducts and in another position only one of the ducts, substantially as described.

3. The combination, with the manual-key, as *K*, of the valve, as *S*, and its octave-valve, as *T*, and the duplex operating-lever, as *N*.

4. The combination, with the operating-valve *S* and its octave-valve *T*, of the duplex operating-lever and its adjuster *R*, as having a movement for rendering the octave-valve operative or inoperative at will, substantially as set forth.

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

MERRITT GALLY.

Witnesses:

GEO. E. VAN GAYSLING,
D. B. GALLY.