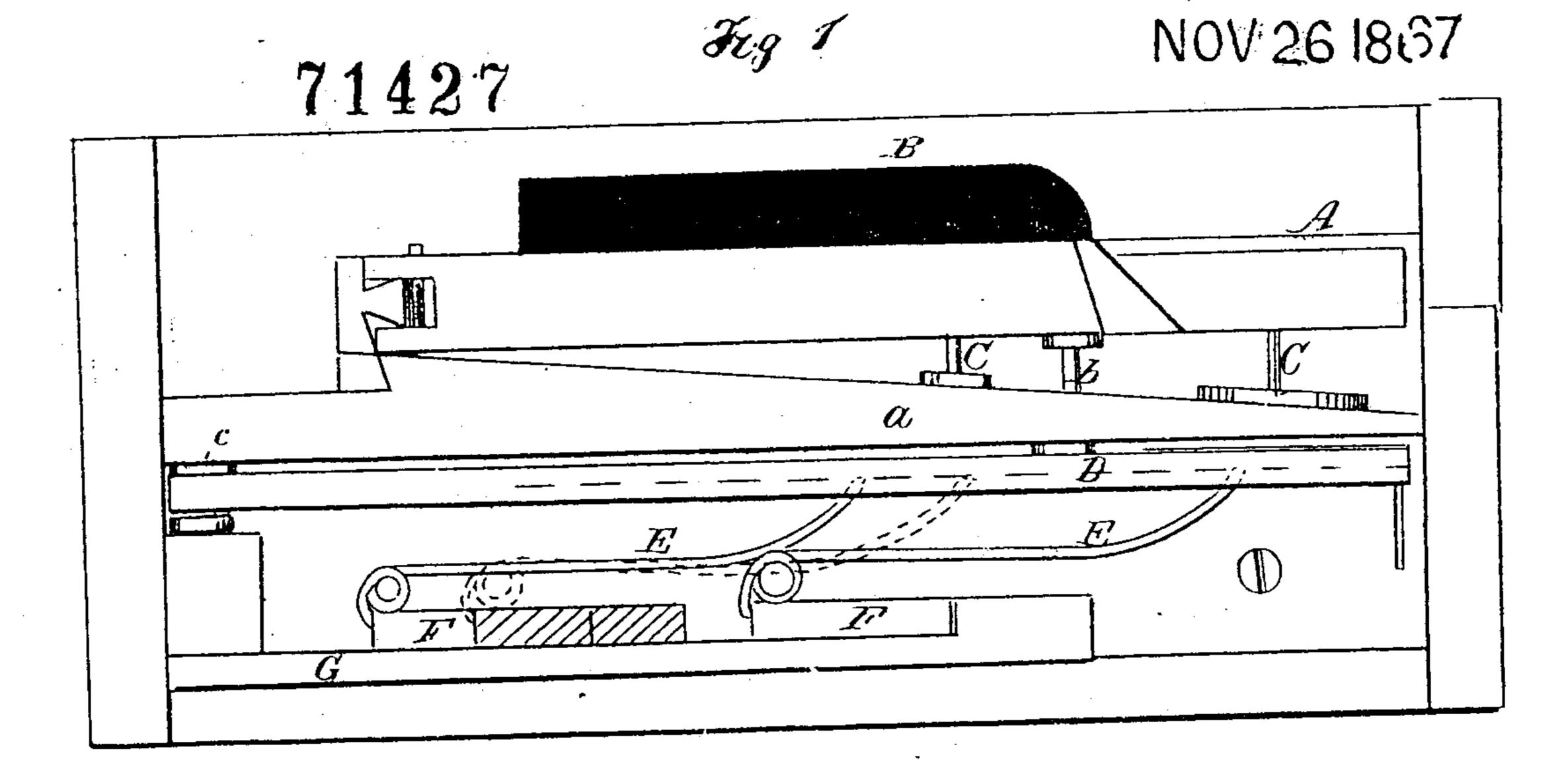
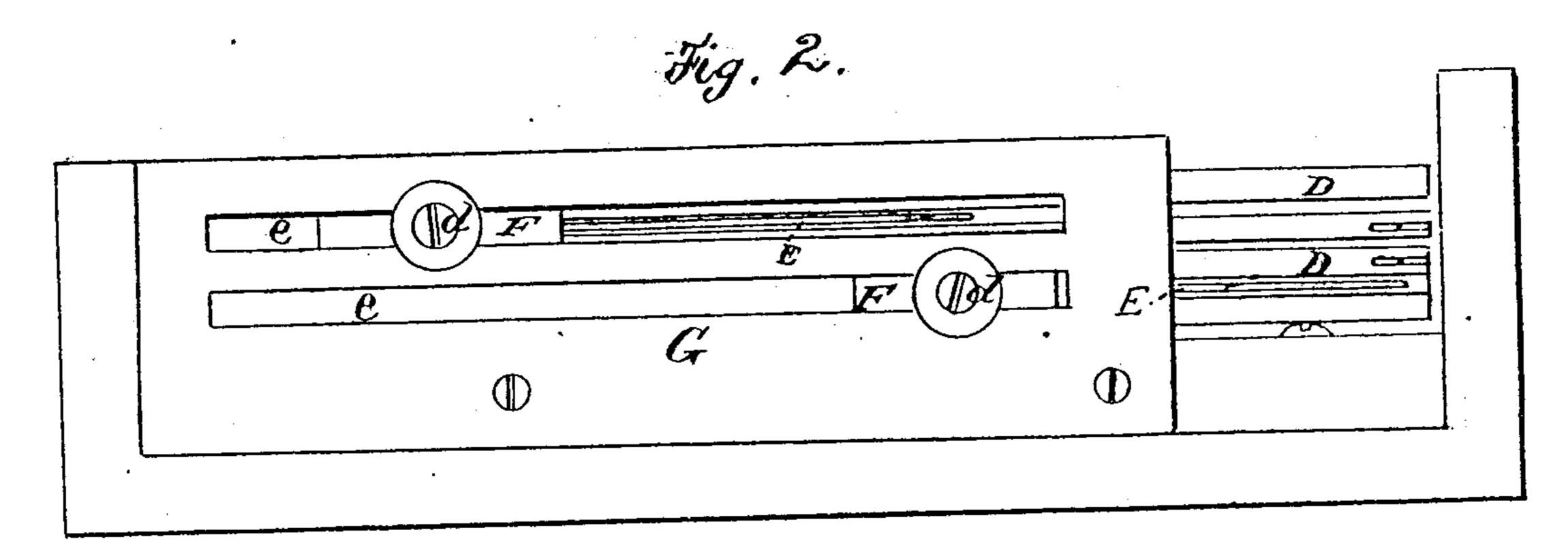
E. Tourjee's Key Board Attach PATENTED





Witnesses The Insehe Inventor En munife Attorneys

Anited States Patent Pffice.

EBEN TOURJÉE, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 71,427, dated November 26, 1867.

KEY-BOARD ATTACHMENT FOR MUSICAL INSTRUMENTS.

The Schedule referred to in these Netters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, EBEN TOURJÉE, of Providence, in the county of Providence, and State of Rhode Island, have invented a new and improved Attachment for the Key-Boards of Musical Instruments, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim, and desire to have secured to me by Letters Patent.

The object of this invention is to obtain, by a very simple and inexpensive means, an attachment for the key-boards of musical instruments which will admit of the "touch" being increased or diminished in force as the performer may require, in order to assist in strengthening the fingers. In the accompanying sheet of drawings—

Figure 1 is a transverse vertical section of the key-board of a piano-forte, melodeon, or other similar

musical instrument.

Figure 2, an inverted plan of the same.

Similar letters of reference indicate like parts.

A represents a key of a natural or whole note, and B a key of a half note, constructed, arranged, and connected with the "action" in the usual way. Each key works on a guide-pin or rod, C, attached to the bottom a of the key-board, and in the bottom a, in line with each key A B, there is fitted loosely a pin, b. These pins are allowed to slide or work freely in the key-board, and they rest each upon a bar, D, the rear ends of which are fitted loosely on pins c underneath the rear part of the bottom a of the key-board. These bars D are allowed to work freely up and down from the pins c as hinges or centres, and a spring, E, bears against the under side of each bar D. These springs are attached to slides F, which are fitted on a slotted board, G, the slides being secured to the board G by screws d, which pass through the slots e in the board G. These springs E, it will be seen, are depressed as the keys are touched, offering a resistance to the same, and assisting in raising them soon as the key is relieved from the finger.

The efficiency of the springs E, as regards their resistance to the depression of the keys, may be increased or diminished by adjusting them further forward or backward, so that they will bear against the bars D a greater or less distance from their ends, which is readily accomplished by the adjustment of the slides F on the slotted

board G.
Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

The employment or use of springs, or their equivalents, applied to the key-board of a musical instrument, and arranged in connection with the keys thereof, to operate in the manner substantially as and for the purpose specified.

EBEN TOURJÉE.

Witnesses:

HENRY BAKER, L. FRANKLIN SNOW.