

No. 731,080.

PATENTED JUNE 16, 1903

C. STOLLEWERK.

ADJUSTABLE THUMB BOARD FOR COMBINATION ORGAN STOP ACTIONS.

APPLICATION FILED OCT. 27, 1902.

NO MODEL.

Fig. 1.

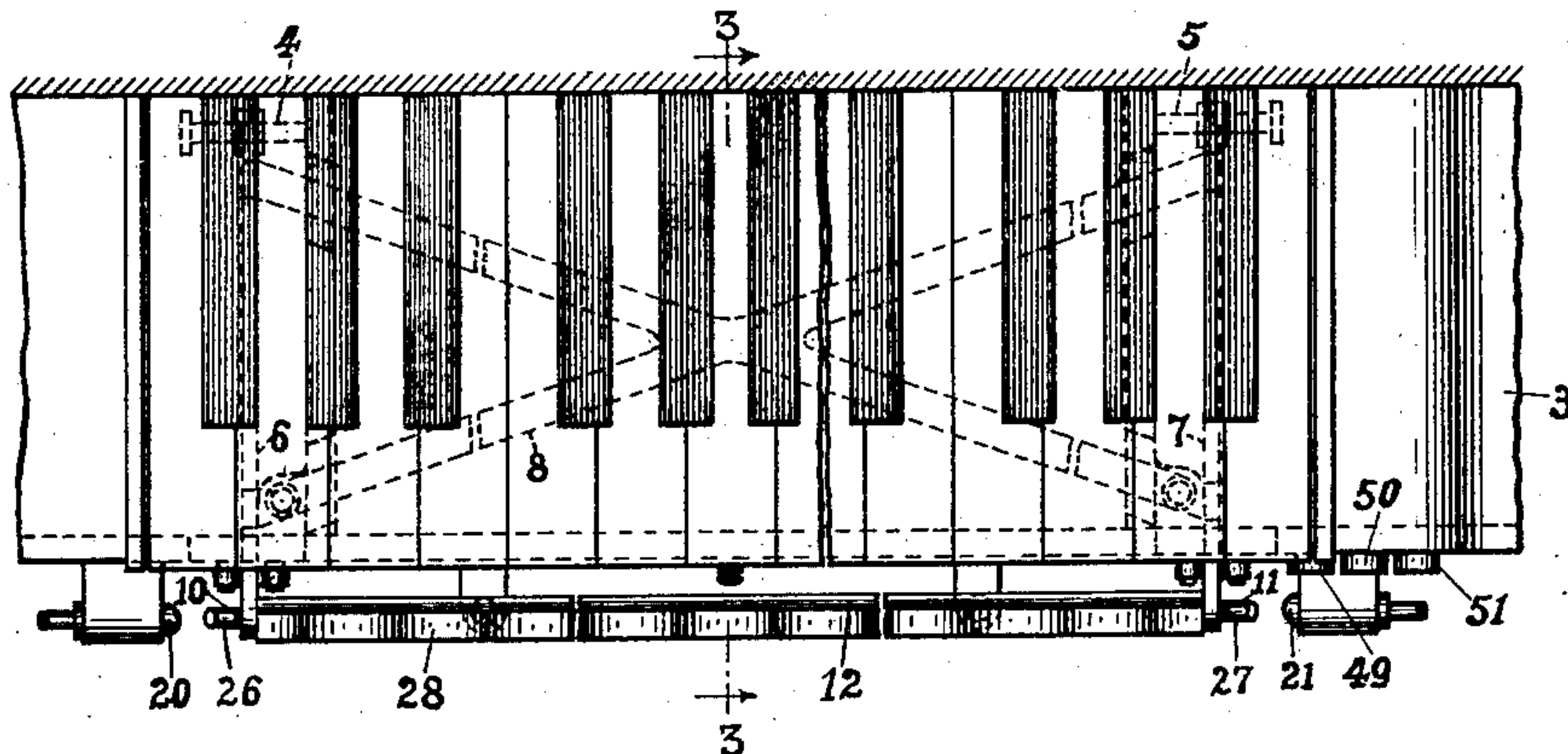


Fig. 2.

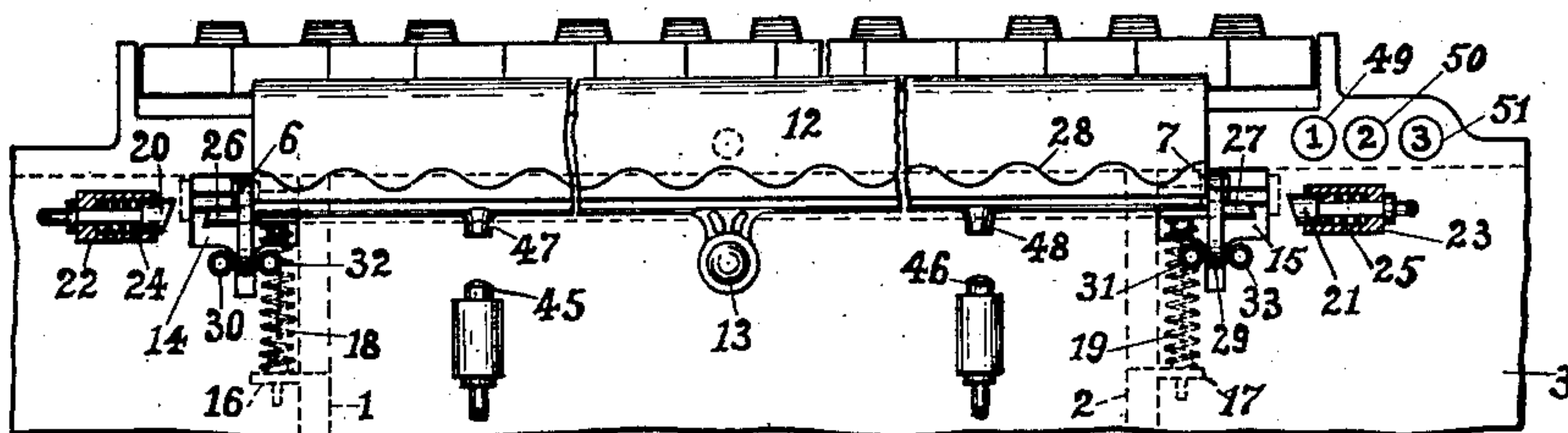


Fig. 3.

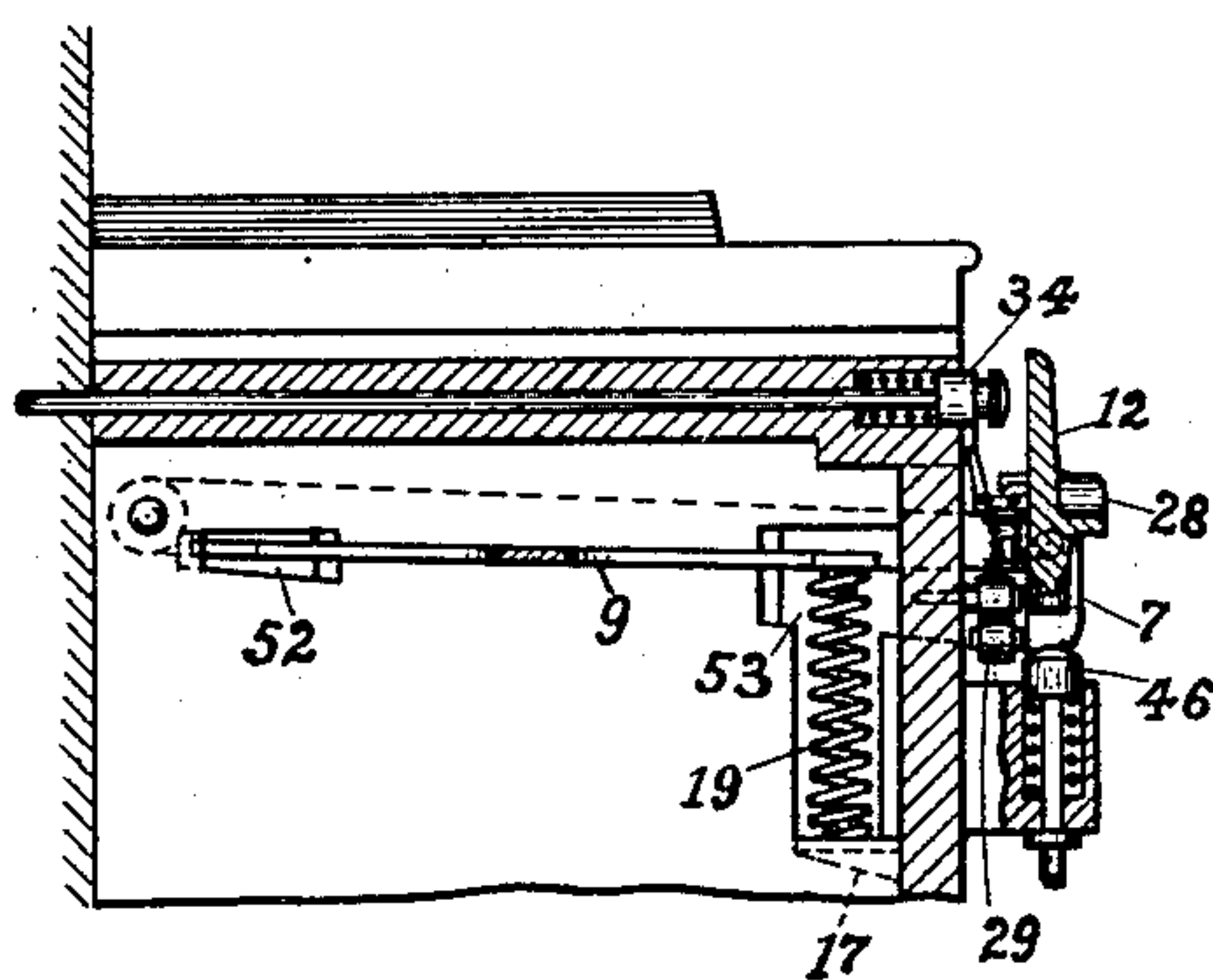


Fig. 4.

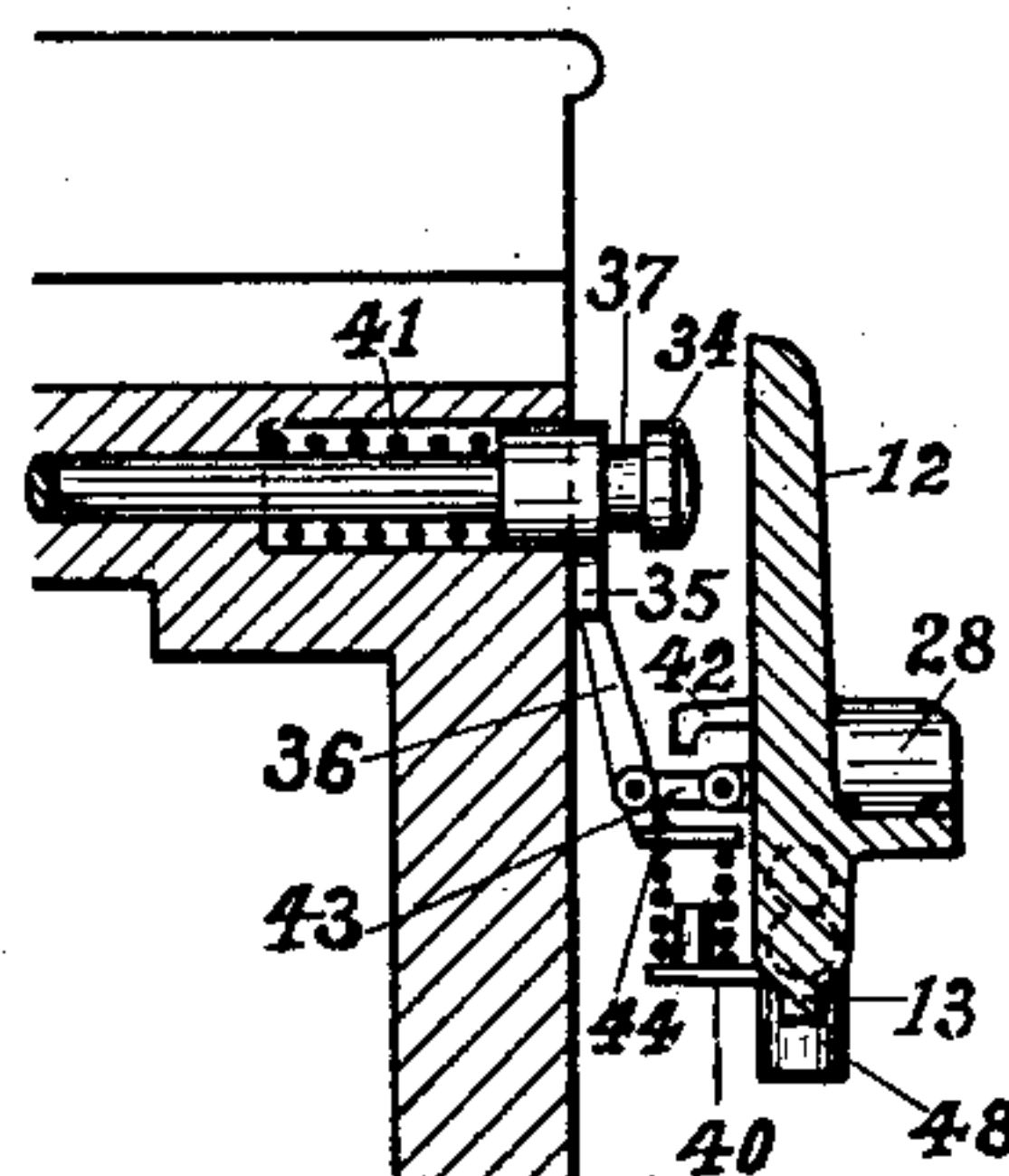
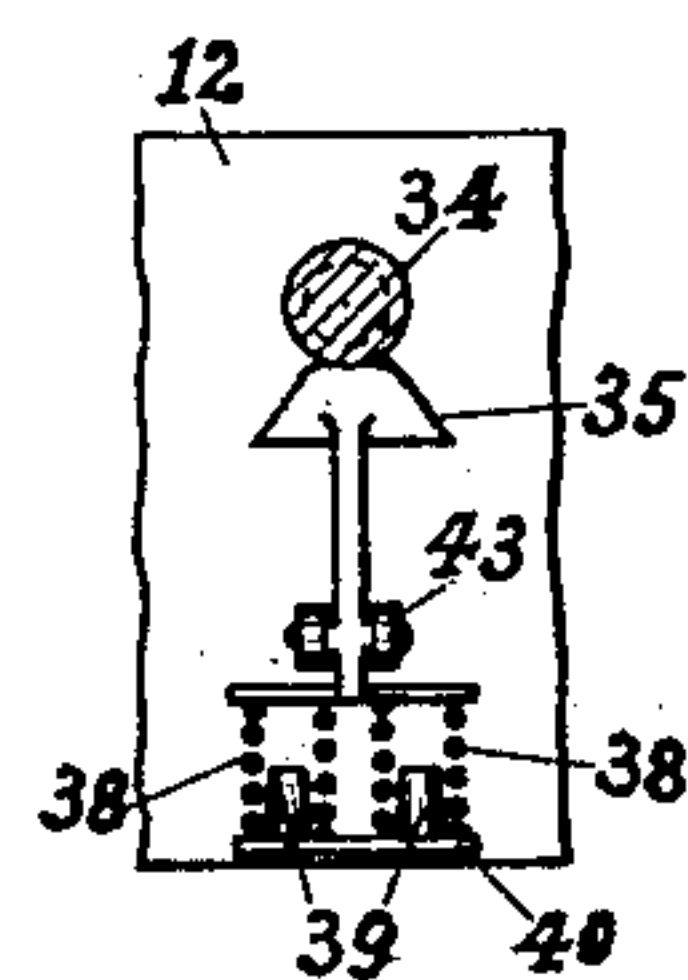


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHRISTIAN STOLLEWERK, OF AIX-LA-CHAPELLE, GERMANY.

ADJUSTABLE THUMB-BOARD FOR COMBINATION ORGAN STOP-ACTIONS.

SPECIFICATION forming part of Letters Patent No. 731,080, dated June 16, 1903.

Application filed October 27, 1902. Serial No. 128,911. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN STOLLEWERK, music-teacher, a subject of the King of Prussia, Emperor of Germany, residing at 29 Augustastrasse, Aix-la-Chapelle, in the Kingdom of Prussia, Empire of Germany, have invented certain new and useful Improvements in Adjustable Thumb-Boards for Combination Organ Stop-Actions; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention more especially relates to improvements upon the organ described and claimed in the United States Letters Patent No. 691,501, issued to me January 21, 1902.

My present invention more particularly relates to improvements upon the pivotally-attached thumb-board, inasmuch as the present thumb-board is not simply pivotally disposed, as formerly, but also capable of being moved and adjusted in all directions. This very desirable feature is obtained by journaling the thumb-board in a frame capable of not only being swung in a vertical plane, but also capable of being moved in opposite directions in a horizontal plane, thus enabling me to operate the three single registers commonly employed in organs and the crescendo or sweller independent of each other and to make resound any desirable combination of sounds, for which it is not necessary here, as in the above-mentioned patent, to play the combinations as previously set; but same may now be varied at will at any time during the play. This improved thumb-board may be employed with the same advantage in connection with the pedal of an organ or any other instrument of this class as with the manual thereof.

In the accompanying drawings, Figure 1 is a plan view of a part of a keyboard with the improved thumb-board attached thereto. Fig. 2 is a front elevation of the same parts. Fig. 3 is a vertical sectional view on line 3-3 of Fig. 1, looking in the direction of the arrows, on a larger scale. Fig. 4 is a detailed sectional view of a part of Fig. 3 on a larger scale; and Fig. 5 is a rear view of a part of

the thumb-board, showing the locking mechanism for one of the register-buttons.

To the inner walls 1 and 2 of the organ-casing 3 are secured the pins 4 and 5, serving as supports and guides to the perforated ends of the arms 6 and 7, united by means of the cross 8 to form a frame 9. In the ends of said arms 6 and 7, protruding in front of the casing 3, are journaled the pintles 10 and 11 of the thumb-board 12, which may be kept in a vertical position by any suitable means—as, for instance, by a weighted pendant 13, as indicated in Fig. 2. The free ends of the arms 6 and 7 are protruding through the openings 14 and 15 of the front wall of the casing 3, and as the arms 6 and 7 must move sidewise and downward in order to let the thumb-board 12 execute the required movements said openings have the shape shown in Fig. 2. Within the casing are secured the brackets 16 and 17, upon which are seated the spiral springs 18 and 19, supporting the frame 9 and the thumb-board journaled therein. To the left and to the right of the thumb-board are placed the buttons 20 and 21, of which each may be connected with one of the single registers in any suitable manner. These buttons are guided in brackets 22 and 23 and normally kept in their advanced position by the springs 24 and 25, respectively, in which position the single registers, with which said buttons are connected, cannot be sounded. The arms 6 and 7 are provided with pintles 26 and 27, having obliquely-shaped ends corresponding with the oblique faces of the register-buttons 20 and 21.

If it is desirable to make the single register resound with which the button 20 is connected, the player must press the thumb-board 12 downward and at the same time move it toward the left, which operation is facilitated by the wavy part 28 of the thumb-board 12. To further facilitate this operation, the hook-shaped ends of the arms 6 and 7 are provided with a roller 29 each, (see Figs. 2 and 3,) which are rolling with their curved surface over the periphery of similar rollers 30 and 31, revolvably secured to the casing 3. It is evident that as soon as the rollers 29 have passed the lowest point of the rollers 30 and 31 the springs 18 and 19 will

try to press the frame 9 and all parts attached thereto upward, which actually will take place as soon as the player lessens his pressure upon the thumb-board. The result of this action is that the oblique end of the pintle 26 contacts with the oblique face of the button 20 and presses the latter sidewise while the pintle 26 is moving upward under the influence of the springs 18 and 19. The register connected with the button 20 will continue to resound until the thumb-board 12 is pressed down again and moved to the right and the spring 24 is in a position to press the button 20 back into its normal position.

If, on the other hand, the register-button 21 is to be moved to the right to make the single register resound with which it is connected, the thumb-board 12 is pressed down, as described above, and moved to the right until the rollers 29 of the arms 6 and 7 have passed the lowest points of the rollers 32 and 33, secured to the casing 3 in a similar manner as the rollers 30 and 31. The pintle 27 of the arm 7 and the button 21 are provided with obliquely-disposed contact-faces, as the pintle 26 and the button 20, and therefore will when the springs 18 and 19 are coming into play work in a similar manner as these. The button 21 is kept in its retracted position until the thumb-board is pressed down and moved to the left into its normal central position. (Shown in Fig. 2.)

When it is desirable to make the single register resound with which the button 34 is connected, the thumb-board 12 is pushed toward the keyboard until said button is pushed far enough back into the casing 3 to let the head 35 of the lever 36 enter the groove 37 of the button 34. As the two springs 38, held in place by the pins 39 on the plate 40 at the rear side of the thumb-board 12, together are stronger than the spring 41 behind the button 34, the latter will be kept in this position until the head 35 will be retracted. Until this is done the single register connected with the button 34 will of course be kept sounding. To retract the head 35, it is only necessary to slightly push the thumb-board downward or move it to the right or to the left. As soon as one or the other of these motions is executed the head 35 will give the button 34 free, and the spring 41 can then push said button 34 outward. In order to prevent the lever 36 from being pushed too high by the springs 38, the hook 42 will come into contact with the link 43 when the latter has been lifted upward equal to the depth of the groove 37. Since the springs 38 are always pressing against the shorter arm 44 of the lever 36, the head 35 will be kept in contact with the front of the casing 3 and slide under the button 34 by means of its slanting sides as soon as the frame 9 is moved sidewise into its central position.

To press down the buttons 45 and 46, connected with the crescendo or sweller and ar-

ranged in a similar manner as the buttons 20 and 21, it is only necessary to press the thumb-board 12 far enough down until the projections 47 and 48 of the thumb-board 12 contact with the buttons 45 and 46, respectively. The thumb-board 12 is held in its lowest position by the player as long as he desires to make use of the crescendo or sweller. Fig. 2 shows at a glance that in order to influence the buttons 45 and 46 the thumb-board 12 must be pressed down for a far greater distance, as when the buttons 20 and 21 are to be set in action, for which reason an undesired response of the crescendo is prevented.

The thumb-board 12 is kept somewhat shorter than the keyboard, whereby not only room is gained for the piano, forte, and fortissimo buttons 49, 50, and 51, respectively, but the keyboard is also gaining thereby in strength.

Fig. 3 shows how the movements of the frame 9 are made possible by providing the walls 1 and 2 with the openings 52 and 53. The openings 53 are of such length as to allow the springs 18 and 19 to move sidewise when the frame 9 is shifted to and fro. In casings of other construction, where the walls 1 and 2 are omitted, the pins 4 and 5 may be secured to brackets or fastened in any other suitable manner.

I am aware that changes of construction could be resorted to in carrying out my invention, and I do not, therefore, limit myself to the precise forms herein shown and described, but consider that I am entitled to all modifications falling within the spirit and scope of the invention.

I claim—

1. In an organ, harmonium or the like, a frame capable of swinging in one plane and sliding in another at right angles thereto; springs to return the frame to its highest position; a thumb-board pivotally mounted in the projecting arms of said frame and capable of being adjusted in every direction; a wavy projection on the front of said thumb-board to facilitate the handling of the same; a register-button working in the casing at right angles to the thumb-board; a locking mechanism on the rear of said thumb-board to automatically lock said register-button when the thumb-board is pushed toward the keyboard; rollers revolvably secured to the front of the casing; rollers on the hook-shaped ends of the arms of said frame contacting with the first-mentioned roller, register-buttons arranged near the ends of said thumb-board; pintles on the hook-shaped ends of said arms adapted to contact with said register-buttons and push them away from said thumb-board; contact-buttons for the crescendo or sweller placed beneath said thumb-board, and projections on the under side of said thumb-board to contact with said buttons of the crescendo or sweller when pressed farther down as is necessary to bring either of said pintles in contact with the register-

buttons arranged near the ends of said thumb-board.

2. In an organ, harmonium and the like, the combination with the casing and key-board thereof of a frame capable of swinging in a vertical plane and of being moved in a plane at right angles thereto; springs to return said frame to its highest position; a thumb-board journaled in the free ends of
10 the arms of said frame and capable of being adjusted in every direction; a wavy projection on the front of said thumb-board; a register-button working in the casing at right angles to said thumb-board; a locking mechanism on the rear side of said thumb-board;
15 rollers revolubly mounted on the front of said casing; rollers on the hooked ends of the

frame-arms; register-buttons arranged near the ends of said thumb-board; obliquely-terminating pintles on the hook-shaped ends of
20 said frame-arms; contact-buttons for the crescendo or sweller placed beneath said thumb-board; and projections on the under side of said thumb-board to contact with said contact-buttons of the crescendo or sweller
25 when the thumb-board is pressed farthest down.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHRISTIAN STOLLEWERK.

Witnesses:

HRT. PÜTZ BURTSCHIED,
HEINR. BUNZENBERG.