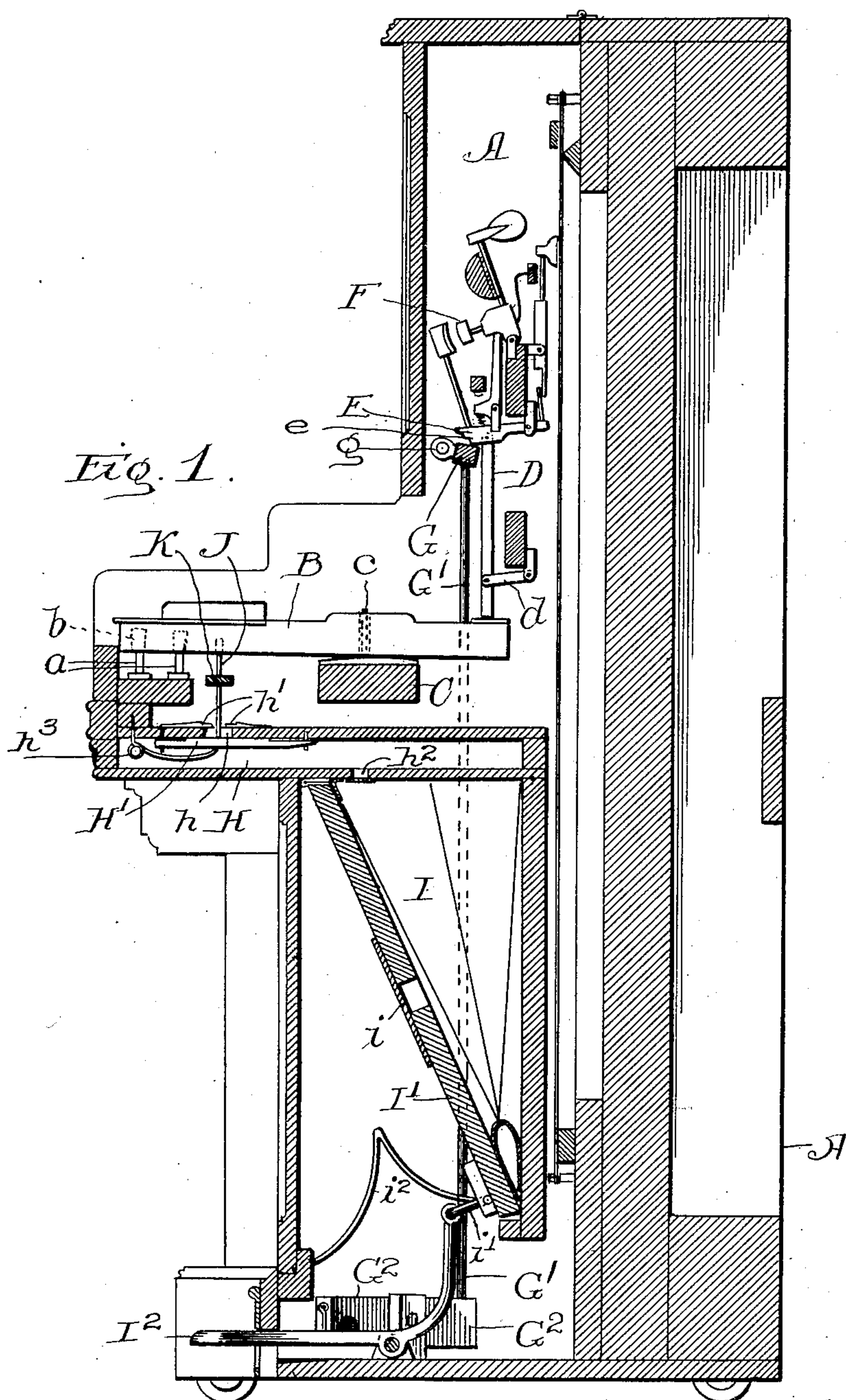


F. KINDERMANN.
MUSICAL INSTRUMENT.
APPLICATION FILED APR. 20, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:
Chas O. Shovey,
S. Bliss.

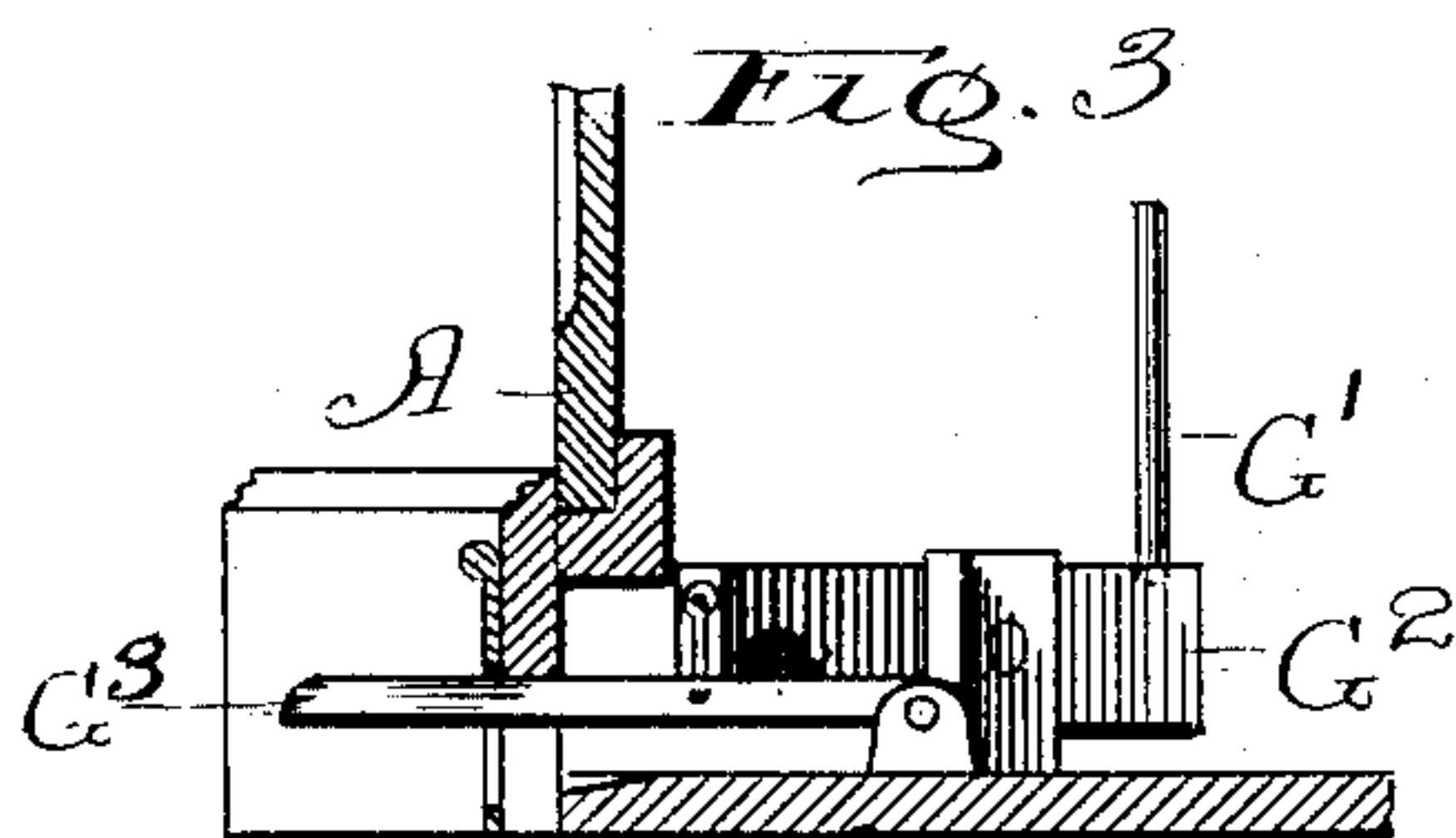
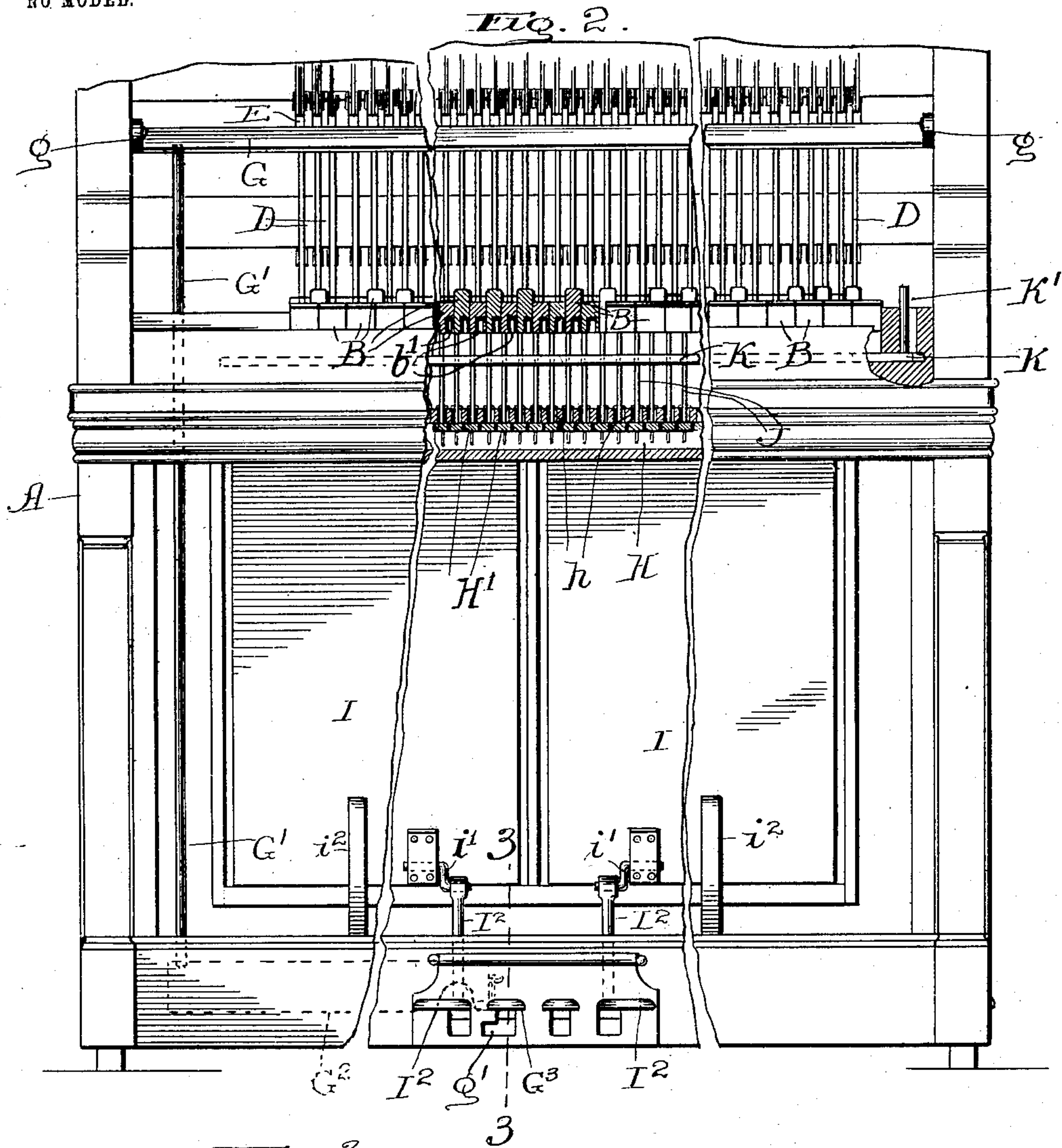
Inventor:
Friedrich Kundermann
by H. P. Butler.
Atty.

F. KINDERMANN.
MUSICAL INSTRUMENT.

APPLICATION FILED APR. 20, 1903.

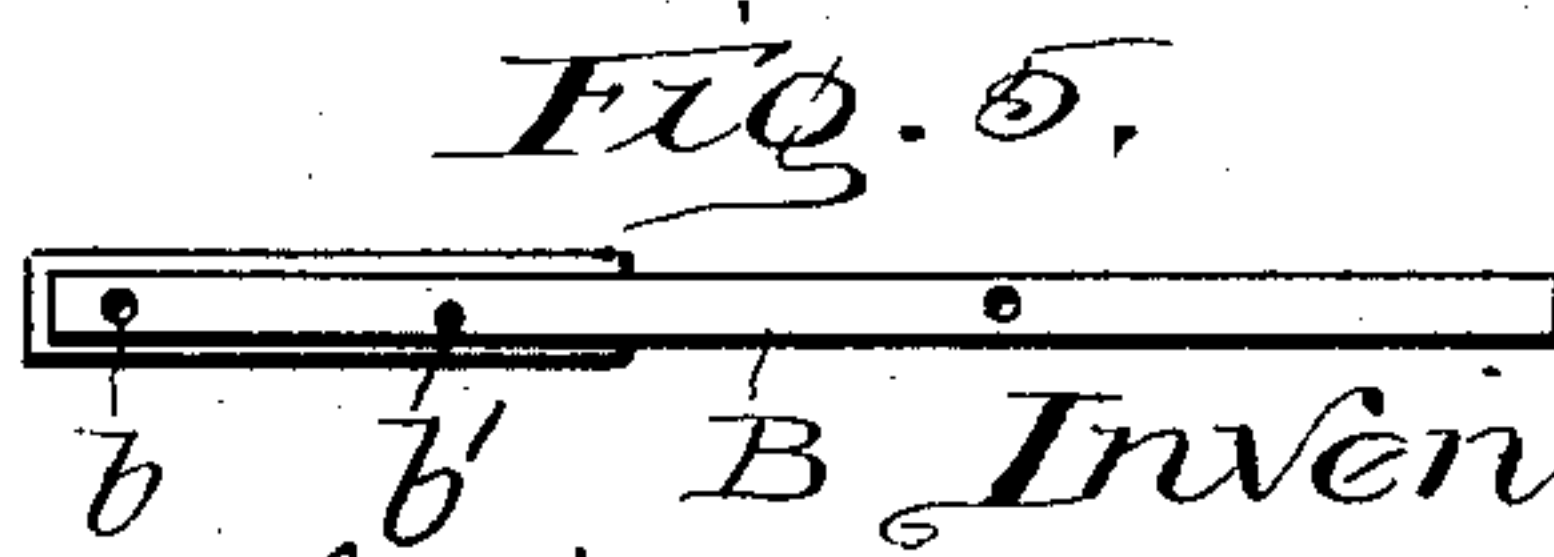
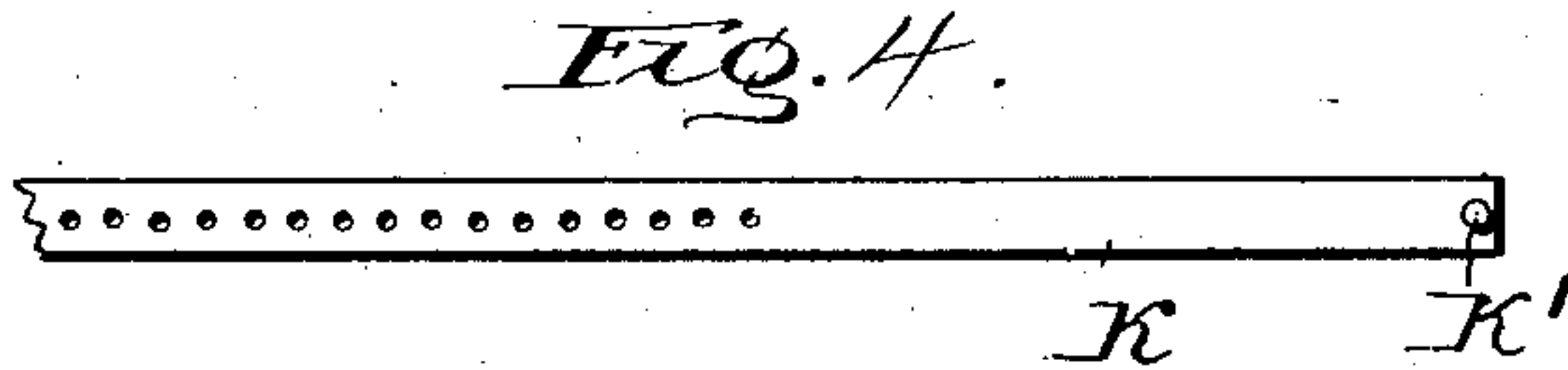
NO MODEL.

2 SHEETS—SHEET 2.



Witnesses:

Chas. O. Shovey
S. Bliss.



Inventor:
Friedrich Kindermann
by H. Bittner
Att'y.

UNITED STATES PATENT OFFICE.

FRIEDRICH KINDERMANN, OF MONROEVILLE, OHIO.

MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 736,979, dated August 25, 1903.

Application filed April 20, 1903. Serial No. 153,362. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH KINDERMANN, a citizen of the United States of America, residing at Monroeville, in the county of Huron and State of Ohio, have invented certain new and useful Improvements in Musical Instruments, of which the following is a specification.

My invention relates to certain new and useful improvements in musical instruments; and its object is to produce a device which shall combine the advantages of the piano and reed-organ and which shall be in certain respects, which will appear in the course of the specification, superior to the articles of this kind heretofore devised.

To this end my invention consists in certain novel features of construction, which are illustrated in the accompanying drawings and described in the following specification.

In the said drawings, Figure 1 is a vertical cross-section through my improved device, showing the operating parts. Fig. 2 is a front view of the same with the front panels removed, certain portions being cut away to show the interior construction and other parts broken away to enable the view to be made as large as possible upon the sheet. Fig. 3 is a section in the line 3-3 of Fig. 2. Fig. 4 is a plan view of a rail for throwing the organ into and out of engagement with the keys, and Fig. 5 is an under plan view of one of the keys.

Referring to the drawings, A is the case of the instrument, made, preferably, as is the case of an ordinary upright piano.

B represents the keys, pivoted in the ordinary manner upon a bar C and held in place with reference to said bar by pins c, extending upward from said bar and through suitable holes in the keys. The front ends of the keys are vertically guided in the ordinary way by pins a, engaging with holes b at the front ends of the keys. The rear ends of the keys engage, after the ordinary manner, with posts D, which are vertically guided, so as to have limited and substantially vertical movement. This guiding is accomplished by links d, pivoted to the action-supporting frame and to the posts D near one end, and by action-whips E, which are pivoted to said frame and to the upper ends of the posts D. The action-

whips are connected in the ordinary manner to the remainder of the piano-action, which is indicated generally in the drawings by F. 55

The remainder of the piano-action is similar to that ordinarily in use, and no detailed description thereof will be necessary.

A rail G is provided which extends from end to end of the instrument and which is provided at its end with ears g, which are pivoted to the case A of the instrument. This rail G, it will be noted, can be swung about its pivot and when so rotated will rise or fall, as the case may be, engaging with projecting ends e of the action-whips E and actuating the said action-whips and posts D. It will be obvious that on continued upward rotation of this rail all the posts D will be raised from engagement with the keys B, so that the keys may be played without affecting the piano-action. The rail G is connected by a suitable rod G' to a lever G², pivoted in the bottom of the case, said lever G² being connected to a pedal G³. It will be obvious that when this pedal is pushed down the lever G² will be rotated, and the rod G', and consequently the rail G, will be raised. The posts D will then be thrown out of engagement with the keys B, as heretofore described. A suitable notch g' is provided by which the pedal G³ can be locked in its lower position when desired. 75

Immediately below the keys B and built into the case A is a wind-chest H, which is provided with the ordinary holes h, reeds h', operating-valves H', and check-valves h², opening into the bellows of the organ, which is indicated in the drawings by I. The engagement between the valves H' and the keys B is secured by dowels J, resting at one end upon the valves and engaging at the other end with the keys, these dowels being vertically guided by a perforated rail K. The operating-valves H' are normally kept seated by means of springs h³. 85

The bellows I, heretofore mentioned, has a movable flap I', provided with a check-valve i of the ordinary type, said flap being spring-pressed in one direction by a spring i². Said flap I' is pivoted to the upper end of one of two pedals I² by means of a link i', and said pedals are made in the form of bell-crank levers and extend from the front of the case in the ordinary manner common to piano- 100

pedals. It is to be understood, of course, that two similar bellows are provided, one connected to each of the pedals I^2 , and two check-valves h^2 are provided in the wind-
 5 chest H, one opening into each of said bellows.

In the bottoms of the keys B are provided holes b' of sufficient size to receive the upper ends of the dowels J when in registration therewith. The rail K is made longitudi-
 10 nally movable and is provided at one end with an upwardly-extending pin K' to permit it to be readily moved when desired. When it is desired to throw the organ out of engagement with the keys, the pin K' is pulled
 15 to the right in Fig. 2, which draws the rail K bodily in that direction and brings all of the dowels J into registration with the holes b' in the keys, thereby permitting the keys to be played in the ordinary way without mov-
 20 ing the dowels, and consequently the operating-valves II' , which control the flow of air past the reeds. When the rail is pushed again to the left, the upper ends of the dowels are in position to engage with the keys, and
 25 consequently any reciprocation of the keys will cause corresponding movement on the part of the operating-valves.

It will be seen from the foregoing that my improved device can be used either as a pi-
 30 ano or as an organ, or, if desired, it can be used to obtain the two effects at the same time. The means by which these results are accomplished are extremely simple and efficient, and it is very difficult for the device to be
 35 readily got out of order.

I realize that considerable variations are possible in the details of this construction without departing from the spirit of the in-
 40 vention, and I therefore do not intend to limit myself to the specific form herein shown and described except as pointed out in the claims.

I claim as new and desire to secure by Letters Patent—

1. In a device of the class described, the
 45 combination with a plurality of keys, a plurality of reeds and connections whereby the reeds are set in motion by the movement of said keys, of a plurality of vertically-guided posts engaging with said keys, a plurality of
 50 action-whips pivoted to the posts, and the remainder of the piano-action actuated by said action-whips, and means for raising said action-whips to throw said posts out of engage-
 ment with said keys.

2. In a device of the class described, the
 55 combination with a plurality of keys, a plurality of reeds and connections whereby the reeds are set in motion by the movement of said keys, of a plurality of vertically-guided posts engaging with said keys, a plurality of
 60 action-whips pivoted to the posts, and the remainder of the piano-action actuated by said action-whips, a vertically-movable rail adapted to raise said action-whips to throw said

posts out of engagement with said keys, and
 65 mechanism for moving said rail.

3. In a device of the class described, the combination with a plurality of keys, a plu-
 70 rality of reeds and connections whereby the reeds are set in motion by the movement of said keys, of a plurality of vertically-guided posts, engaging with said keys, a plurality of action-whips pivoted to the posts, and the re-
 75 mainder of the piano-action actuated by said action-whips, a vertically-movable rail adapted to raise said action-whips to throw said posts out of engagement with said keys, a
 pedal, and means of connection between said rail and said pedal, whereby the movement
 80 of said pedal will raise said rail.

4. In a device of the class described, the combination with a plurality of keys, a plu-
 85 rality of reeds and connections whereby the reeds are set in motion by the movements of said keys, of a plurality of vertically-guided posts, engaging with said keys, a plurality of action-whips pivoted to the posts, and the re-
 90 mainder of the piano-action actuated by said action-whips, a rail pivoted to the frame and arranged, when swinging through a substan-
 95 tially vertical arc to engage said action-whips to raise the same and throw said posts out of engagement with said keys, and mechanism
 for swinging said rail upon its pivot.

5. In a device of the class described, the
 95 combination with a plurality of keys and a piano-action arranged to be actuated thereby, of a bellows, a plurality of reeds, and a plurality of valves controlling the passage past
 100 said reeds, a plurality of dowels extending from said valves to said keys, said keys being provided on their lower surfaces with
 105 holes, and means for shifting the upper ends of said dowels to bring them into registra-
 tion with said holes to permit the keys to be moved without actuating the organ mech-
 anism.

6. In a device of the class described, the combination with a plurality of keys and a
 110 piano-action arranged to be actuated thereby, of a bellows, a plurality of reeds, and a plurality of valves controlling the passage past said reeds, a plurality of dowels extending
 115 from said valves to said keys, said keys being provided on their lower surfaces with holes, a perforated rail surrounding and guiding
 said dowels, said rail being longitudinally movable to shift the upper end of said dowels
 120 and bring the same into registration with the holes in said keys.

In witness whereof I have signed the above application for Letters Patent, at Monroe-
 ville, in the county of Huron and State of Ohio, this 6th day of April, A. D. 1903.

FRIEDRICH KINDERMANN.

Witnesses:

WILLIAM WALTER,
 ADOLF G. WEINSTEIN.