

Feb. 2, 1937.

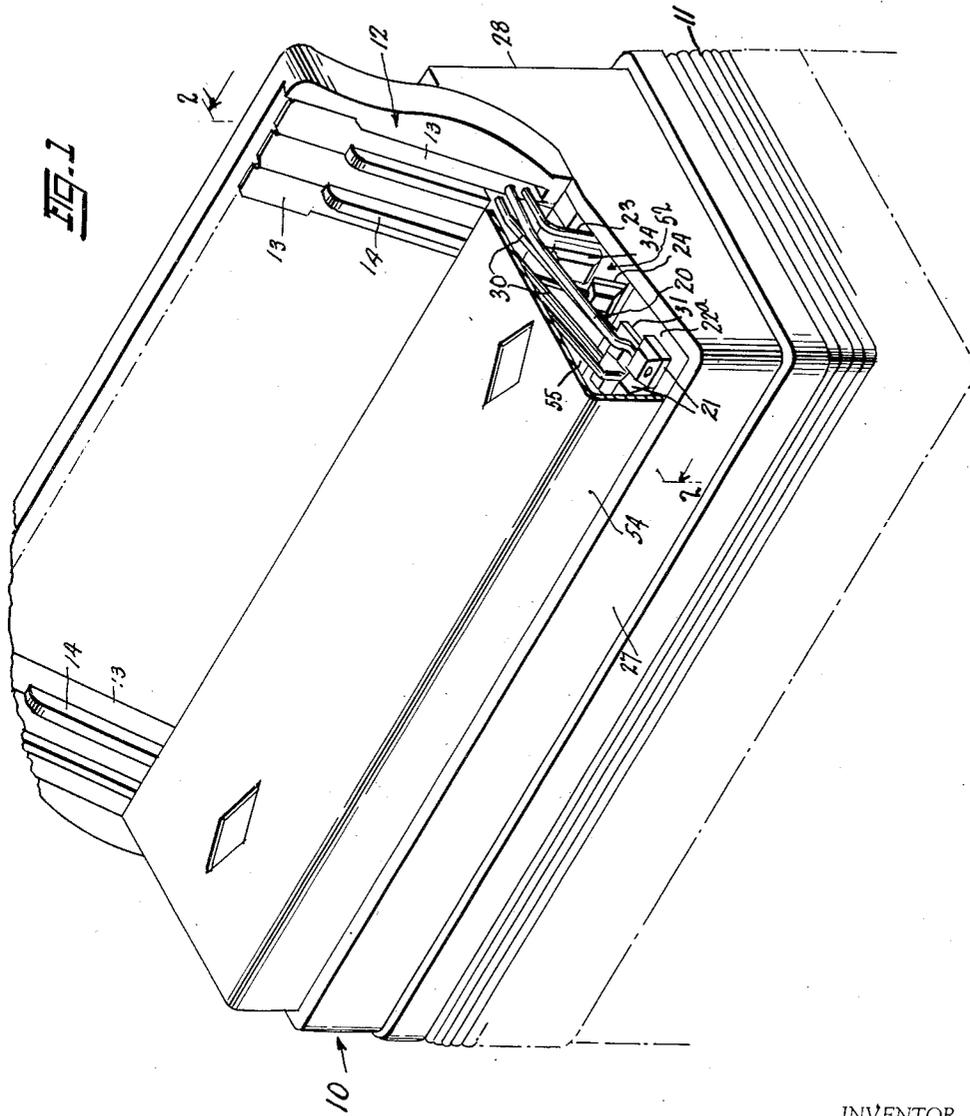
C. IORIO

2,069,447

ACCORDION

Filed Jan. 2, 1936

3 Sheets-Sheet 1



INVENTOR.
Candido Iorio.

BY *Maurice Block*
ATTORNEY.

Feb. 2, 1937.

C. IORIO

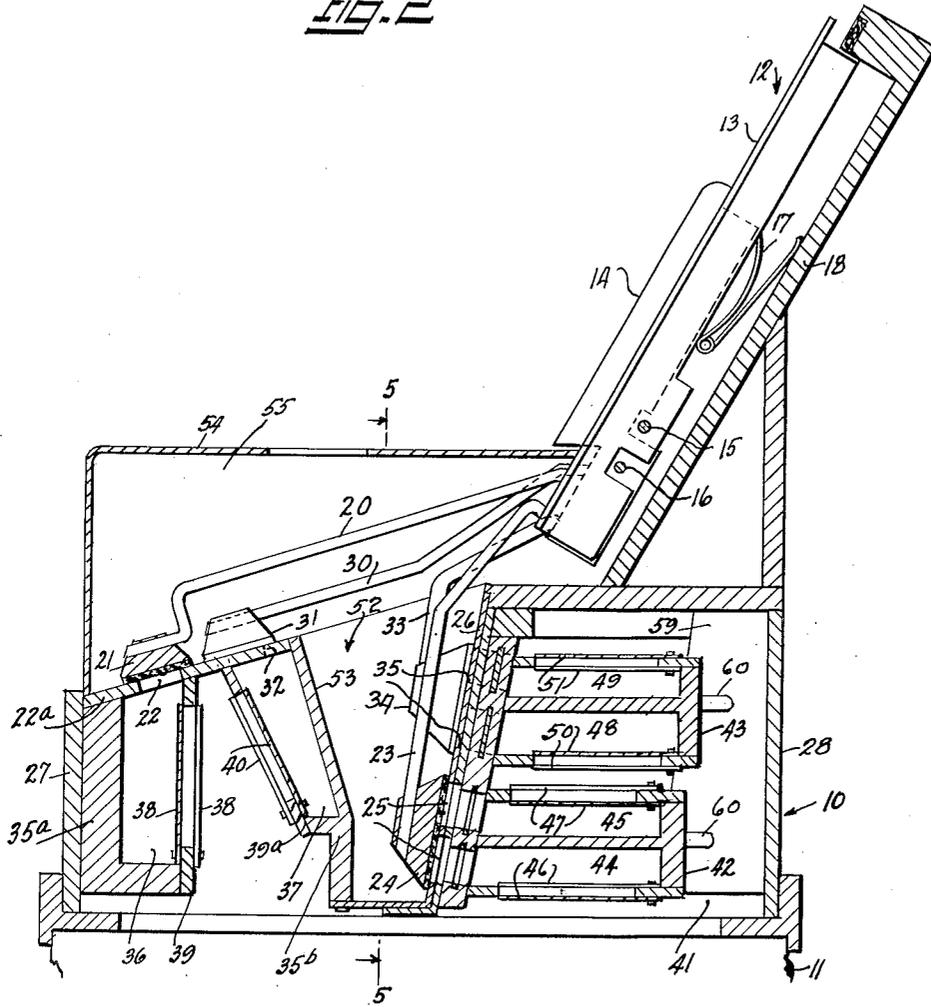
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ACCORDION

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FIG. 2



INVENTOR.
Candido Iorio
BY *Wm. H. H. H. H.*
ATTORNEY.

Feb. 2, 1937.

C. IORIO

2,069,447

ACCORDION

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FIG. 3

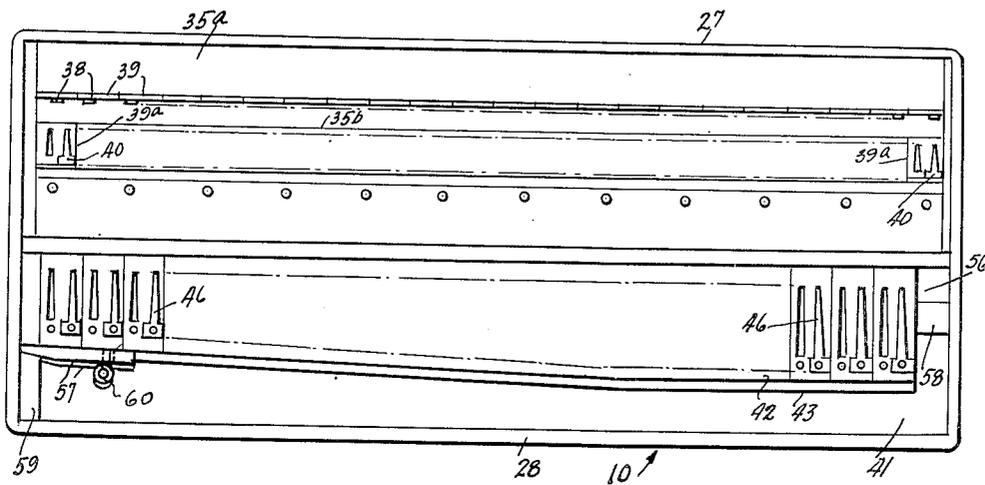


FIG. 4

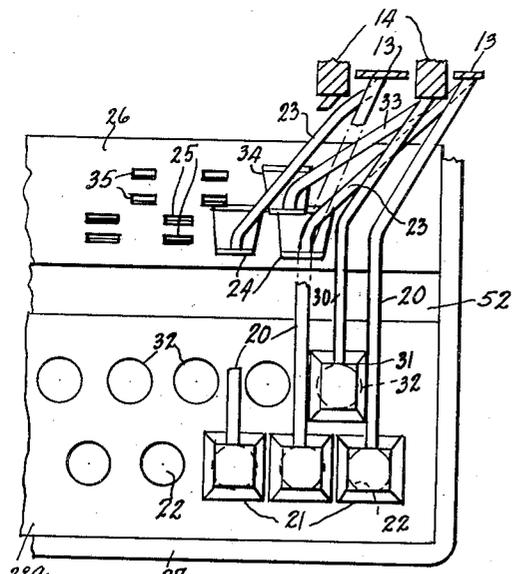


FIG. 5

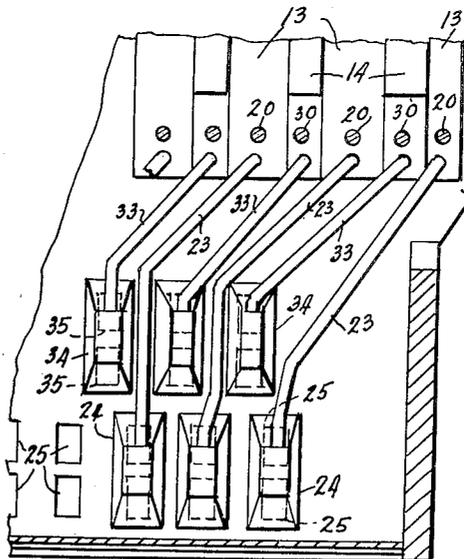
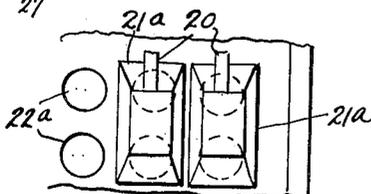


FIG. 6



INVENTOR.

Candido Iorio

BY *Udovic Ploch*

ATTORNEY.

UNITED STATES PATENT OFFICE

2,069,447

ACCORDION

Candido Iorio, Jamaica, N. Y., assignor to
Gretsch & Brenner, Inc., New York, N. Y., a
corporation of New York

Application January 2, 1936, Serial No. 57,159

4 Claims. (Cl. 84—376)

This invention relates to accordions and has for one of its objects the provision of such a musical instrument in which the keys control a plurality of valves by means of a plurality of rods connected to each of the keys, each of the said rods carrying at its end a cover overlying a valve opening located at different portions of the instrument.

Another object of the invention is to produce an accordion in which the keys when actuated will simultaneously operate a plurality of valves in communication with reed chambers located in different zones of the accordion.

A further object of the invention is to provide an accordion with reed blocks at the front of the accordion, the reeds of which are in communication with a sound chamber formed by the accordion cover, the said accordion also having a plurality of reed blocks at the rear of the instrument, the reeds of which are in communication with a sound chamber extending the entire length of accordion and in open communication with the aforementioned chamber, the reeds of the last named blocks extending laterally.

A still further object of the invention is to provide an accordion which is capable of producing a sound or tone in simulation of an organ.

Another object is to provide a device of the character described in which the maximum simplicity of construction and operation is secured.

Other objects and advantages will appear as the nature of the improvements is better understood, the invention consisting substantially in the novel arrangement and co-relation of parts herein fully described and illustrated in the accompanying drawings, wherein similar reference characters are used to describe corresponding parts throughout the several views, and then finally pointed out and specifically defined and indicated in the appended claims.

The disclosure made the basis of exemplifying the present inventive concept suggests a practical embodiment thereof, but the invention is not to be restricted to the exact details of this disclosure, and the latter, therefore, is to be understood from an illustrative, rather than a restrictive standpoint.

The inventive idea involved is capable of receiving a variety of mechanical expressions, one of which, for the purpose of illustration, is shown in the accompanying drawings, in which

Figure 1 is a fragmental perspective view of my improved accordion with a portion thereof broken away for the sake of clarity.

Fig. 2 is a sectional view taken on line 2—2 Fig. 1.

Fig. 3 is a bottom plan view of the accordion showing the arrangement of the various reed blocks.

Fig. 4 is a fragmental plan view partly in section of the right-hand end of the accordion.

Fig. 5 is a fragmental sectional view taken on line 5—5 Fig. 2, and

Fig. 6 is a fragmental top plan view of a modified form of the front portion of the accordion.

Referring now to the drawings in detail, 10 indicates a housing in communication with the usual bellows 11. A keyboard 12 is located at the top of the housing 10, the said keyboard being provided with keys 13 and 14 pivoted respectively at 15 and 16. The said keys are each provided with a tension spring 17 one end of which is secured to its respective key and the opposite end is in contact with the key-board backing 18.

The keys 13 are each provided with a rod or arm 20 having a valve cover 21 which normally overlies and closes a valve opening 22 in a wall or plate 22^a at the front of the accordion, and a second rod 23 provided with a valve cover 24 covering a plurality of valve openings 25 in a wall or plate 26 located approximately midway between the housing front and rear walls 27 and 28 respectively. The keys 14 are each provided with a rod 30 having a valve cover 31 normally closing a valve opening 32 in the plate 22^a, each of the said keys 14 being further provided with a rod 33 having a valve cover 34 normally covering a plurality of valve openings 35 in the plate 26.

Directly below the wall 22^a there are provided two reed blocks 35^a and 35^b having sets or banks of reed chambers 36 and 37 respectively. Reeds 38 are secured to plates 39 which close the inner side of the reed chambers 36 and plates 39^a provided with reeds 40 which close the reed chambers 37. Directly behind or to the rear of the wall 26 there is provided a chamber 41 in which are removably mounted lower and upper reed blocks 42 and 43 respectively. The block 42 is provided with banks or sets of reed chambers 44 and 45 which are in communication with the valve openings 25, the valve chambers 44 being provided with reeds 46 and the reed chambers 45 with reeds 47. The block 43 is subdivided into sets of reed chambers 48 and 49 in communication with the valve openings 35 and each of the said reed chambers is provided with reeds 50 and 51. A sound chamber 52 is formed between the wall 26 and the rear wall 53 of the reed chamber 37, the said sound chamber being funnel- or

horn-shaped in cross section and is open at the top thereof, said opening leading into the interior of a cover 54 which forms a sound merging chamber 55 common to all of the reed banks.

5 The reed blocks 42 and 43 are each provided at one end (see Fig. 3) with an extension 56 and at the opposite end with a slidable wedge 57. The extension 56 normally engages a block 58 and the wedge 57 engages a tapered strip 59. The wedges 57 are normally held in place by thumb screws 60 which when slightly unscrewed loosen the wedges sufficiently so that they may be slid out of engagement with the strip 59 thus enabling the reed blocks to be removed when occa-
15 sion arises.

I have found that the combination of oboe and clarinet tones produce an organ effect, and inasmuch as I desire an accordion that will produce tones or sounds in simulation of an organ,
20 the reeds 38 and 49 are of such nature that they will produce an oboe sound and the reeds on the reed blocks 42 and 43 are adapted to produce base clarinet tones which when combined with the oboe tones of the reeds 38 and 49 will produce
25 the desired organ effect.

It will be seen that when any of the keys of the keyboard are actuated two valve covers will be raised thus sounding base clarinet reeds of the lower reed block 42 and oboe reeds 38 of the fore-
30 most reed block 35^a, or base clarinet reeds 50 and 51 of the upper reed block 43 and reeds of the reed block 35^b, which sounds will combine and be amplified in the sound chamber 55 to produce an organ effect.

35 In Fig. 6 I have shown a modified form of the invention wherein instead of a single reed block 35^a I utilize two such blocks the reed chambers of which are in communication with two valve openings 22^a and are covered by a single cover 21^a
40 on the rods 20 thus enhancing the tone qualities and volume of any given notes.

I desire it understood that I do not limit myself to the use of sound devices that will produce the oboe and base clarinet tones as any desired
45 combination of sound-producing devices may be used to produce a given or desired tone effect.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In an accordion, a housing having a cover
50 formed with a sound outlet opening, a bank of reed chambers in said housing, a second bank of reed chambers in said housing, said banks of reed chambers being spaced from the cover of the housing to provide a sound merging chamber and
55 being spaced from each other to provide a sound chamber leading from the sound merging chamber, playing keys, an arm extending from each key towards one of the first bank of reed chambers, a second arm extending from each key towards one of the second bank of reed chambers,
60 and a valve cover on each arm controlling their respective reed chambers, one bank of reed chambers extending in a vertical plane across the accordion with the outlets of its chambers opening
65 into the sound merging chamber and the other bank of reed chambers extending in a hori-

zontal plane with the outlets of its chambers opening into the sound chamber.

2. In an accordion, a housing having a cover formed with an outlet, a reed chamber block in said housing, a second reed chamber block in said
5 housing spaced from the first reed block to provide a sound chamber between the blocks, said blocks being spaced from the cover to provide a sound merging chamber having the sound chamber leading therefrom, one block having
10 outlets opening into the sound merging chamber and the other block having outlets opening into the sound chamber, a set of playing keys, and a pair of valve cover carrying arms on each of the keys, one of the said arms controlling a reed
15 chamber in one of the reed chamber blocks, and the other of said arms controlling a reed chamber in the other of the said blocks.

3. In an accordion, a housing having a cover formed with a sound outlet, a pair of spaced-
20 apart reed chamber blocks located at the front of the housing and spaced from the top of the housing, the reed chambers of said block extending substantially vertically with respect to the
25 said blocks and having sound outlets opening through the cover of the blocks, a second pair of spaced-apart reed chamber blocks spaced from the top of the housing and spaced rearwardly from the front blocks, the reed chambers
30 in the last mentioned blocks extending horizontally with respect to the said blocks and having outlets opening into the space between the front and rear blocks, a set of playing keys, and a pair of arms extending from each of the keys, one of
35 the said arms controlling a reed chamber in one of the front reed chamber blocks, and the other of said arms controlling a complementary reed chamber in one of the rear blocks.

4. In an accordion, a housing having a cover formed with a sound outlet, a pair of spaced-
40 apart reed chamber blocks located at the front of said housing, the reed chambers extending substantially vertically with respect to said blocks, a second pair of spaced-apart reed chamber blocks spaced rearwardly of the front blocks,
45 the reed chambers in the last mentioned blocks extending horizontally with respect to the said blocks, all of said blocks being spaced from the cover of the housing to provide a sound merging chamber and the space between the two sets of
50 reed chamber blocks constituting a sound chamber leading from the sound merging chamber, the reed chambers of the front blocks having valve openings in communication with the said sound merging chamber and the reed chambers
55 of the rear blocks having valve openings in communication with the sound chamber between the front and rear blocks, a set of playing keys, and a pair of arms extending from each of the keys, one of said arms controlling a reed chamber in
60 one of the front reed chamber blocks and the other of said arms controlling a complementary reed chamber in one of the rear reed chamber blocks.

CANDIDO IORIO. 65