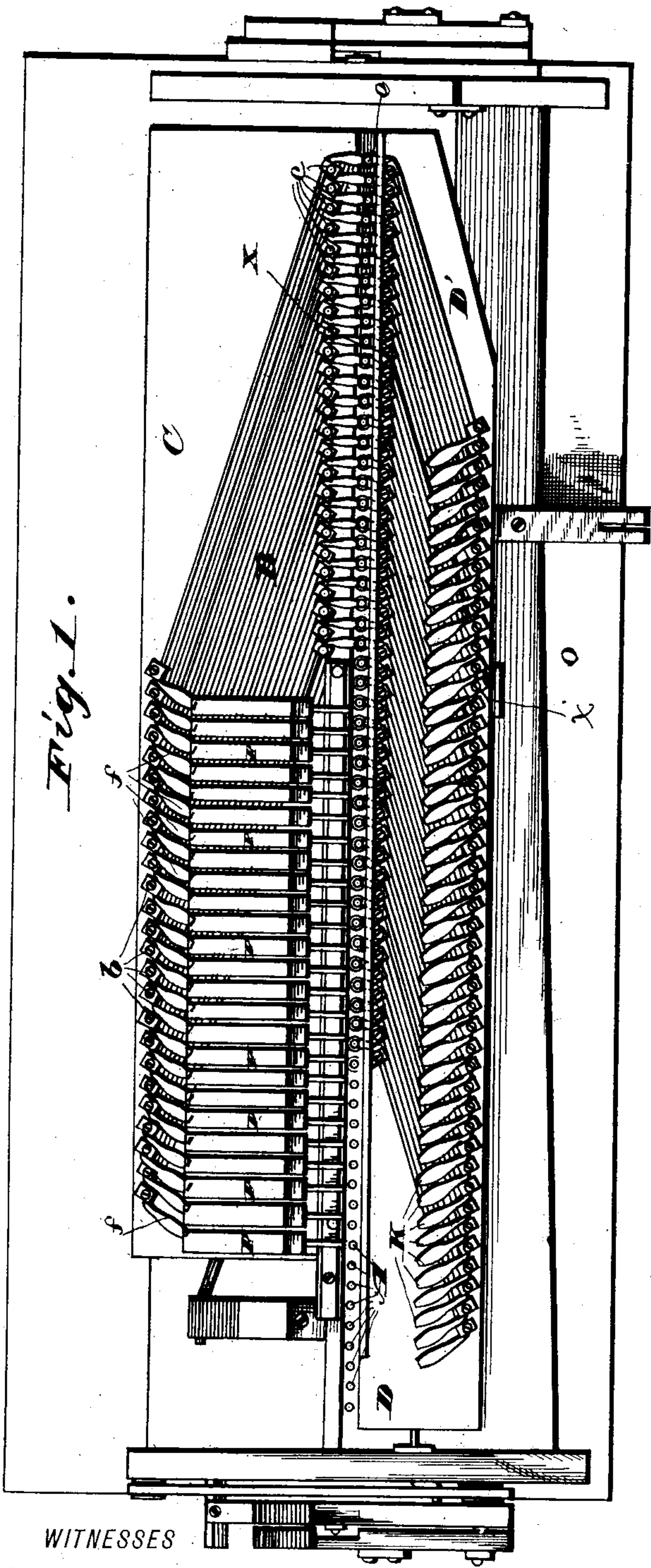


(No Model.)

O. C. WHITNEY.
ORGAN COUPLER.

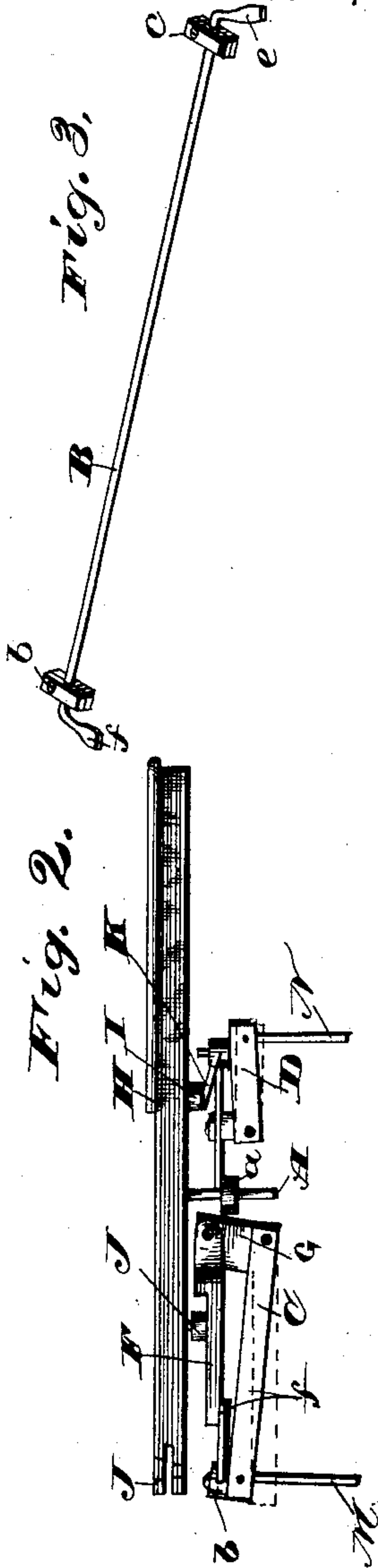
No. 329,796.

Patented Nov. 3, 1885.



WITNESSES

3rd M. Monroe.
Geo. W. King



INVENTOR
Epison C. Whitney
By Leggett & Leggett
Attorneys

UNITED STATES PATENT OFFICE.

ORISON C. WHITNEY, OF CLEVELAND, OHIO.

ORGAN-COUPLER.

SPECIFICATION forming part of Letters Patent No. 329,796, dated November 3, 1885.

Application filed March 31, 1885. Serial No. 161,402. (No model.)

To all whom it may concern:

Be it known that I, ORISON C. WHITNEY, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Reed Organs; 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 pertains to make and use the same.

My invention relates to improvements in reed-organs and similar instruments, the object being to provide a double-octave attachment, by means of which a key will not only operate the valve with which it is directly connected, but will also operate the valve that is two octaves above. A further object is to arrange this double-octave attachment so that it may be operated separately or in combination with the ordinary single-octave attachment. A further object is to separate the upper portion of the single-octave attachment, and so arrange and combine the parts that this upper portion may be operated in combination with the balance of the single-octave attachment, or with the double-octave attachment, or with both, as may be required.

With these objects in view my invention consists in certain features of construction, and in combination of parts hereinafter described, and pointed out in the claims.

It is well known to those skilled in the art of music that the effect of close harmony, especially in instrumental music, as a rule, is not so agreeable as with open chords. The same pertains to octaves. When two notes forming a single octave are produced in unison, the two tones are similar and do not produce the agreeable and brilliant effect that is had when the notes are further separated, as in a double octave. I have therefor invented an organ attachment, and provided mechanism by means of which the keys of a single octave are coupled with the valve of the second octave above. I have so arranged this new attachment that it may be operated in combination with or without the single-octave attachment heretofore in use.

In the accompanying drawings, Figure 1 is a plan view of my double-octave attachment in combination with the single-octave attachment heretofore in use, but with the keyboard removed. The former is shown in the

rear and the latter in the front part of the drawings. Fig. 2 is a side elevation of a key and a portion of the mechanism of both the single and double octave attachments. Fig. 3 is a view in perspective of one of the double-octave rollers, showing also the connecting-arms and the supporting-boxes.

A represents the valve-stems, operated in the usual manner by depressing the keys. These valve-stems are provided with collars *a*. In front of the valve-stems is the single-octave attachment, constructed and operated substantially as described in the patent to A. W. Wilcox, dated January 26, 1869, and numbered 86,335, except as hereinafter described and shown. In the rear of the valve-stems is located the double-octave attachment. The rollers B are journaled in suitable boxes, *b* and *c*, attached to the table C, and have arms *e* on the right hand that engage the collars *a*, and on the left hand arms *f*, that extend under the ends of the levers F and are actuated thereby. These levers are pivoted at G, as shown in Fig. 2. The keys H—one of which is shown in Fig. 2—are provided with the pins I and J, the former operating the arms K of the single-octave attachment, and the latter operating the levers F, that in turn actuate the arms *f* of the rollers B. The pins J, engaging the lever F, are in such position relative to the fulcrum that an equal motion is given to the arms *f* of the double-octave attachment and the arms K of the single-octave attachment. The tables C and D, to which the respective attachments are secured, are hinged on the respective sides nearest to the valve-stem, and when raised by the action of the pedals, stops, or knee-lever, to which they are respectively attached—for instance, by the connecting-rods M and N—to the position shown in Fig. 2, the levers F and the arms K are actuated by the keys; but when in their normal position (shown in dotted lines in Fig. 2) these parts do not come in contact with the keys. Either or both of the tables may be raised, as desired. As the rollers B are of the required length to span two octaves, the right-hand roller, whose arm *e* engages the right-hand or upper valve of the instrument, will be actuated by a key two octaves farther down the key-board, and consequently for the keys above there will be no corresponding roll-

ers. In using the double-octave attachment the key that operates the right-hand roller would open two valves, like those below it, while the next key above could open only one valve and produce but one tone. This would cause too abrupt a change in the music. I have therefore devised means of using the upper end of the single-octave attachment to continue the double tones still further. For this purpose I sever the table D on the central part of the bent lines x , and the severed part D' is hinged separately, so that it may be raised without raising the part D. The piece O, or equivalent device, is secured to the bottom of the part D, and projects under the part D', so that when the former is raised the latter will be raised also. The part D' is also connected in any suitable manner with devices that raise the table C, so that the tables C and D may be raised together. The arrangement of parts is such that the key that operates the left-hand or lower roller on the part D' is the next key above the one that operates the highest or right-hand roller of the table C. The double tones therefore, instead of ending abruptly with the double octaves, are continued by the use of this part of the single-octave attachment. The various means of raising or lowering these tables by connecting them with the stops or pedals of the instrument are so well known to organ-builders that it is not considered necessary to describe them, especially as no claim is made to these connecting devices.

What I claim is—

1. In a reed-organ or similar instrument, a double-octave-coupler attachment having rollers spanning two octaves, in combination

with rollers spanning a single octave, and devices, substantially as described, connecting the keys and rollers, whereby a key when depressed will operate a valve two octaves above simultaneously with that of the octave of the valve under the key.

2. In a reed-organ or similar instrument, the combination, with the rollers B, adapted to span two octaves, and arranged, as shown, on the table C, of the levers F, arranged and operated substantially as described.

3. In a reed-organ or similar instrument, the combination, with a single-octave attachment arranged in front of the valve-stems in the usual manner, of a double-octave attachment located in the rear of the valve-stems, and provided with suitable levers, by means of which the rollers in the rear are given an equal movement with the rollers in front, and arranged as described, so that the two attachments, single and double octave, may be operated separately or together, substantially as set forth.

4. In a reed-organ or similar instrument, the combination, with a double-octave attachment, of a single-octave attachment, substantially in the manner described, whereby it may be operated by the keys next in succession above the keys that operate the double-octave attachment, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 2d day of April, 1884.

ORISON C. WHITNEY.

Witnesses:

ALBERT E. LYNCH,
CHAS. H. DORER.