

(No Model.)

C. H. HUBBELL.

ORGAN CASE.

No. 387,884.

Patented Aug. 14, 1888.

Fig. 1

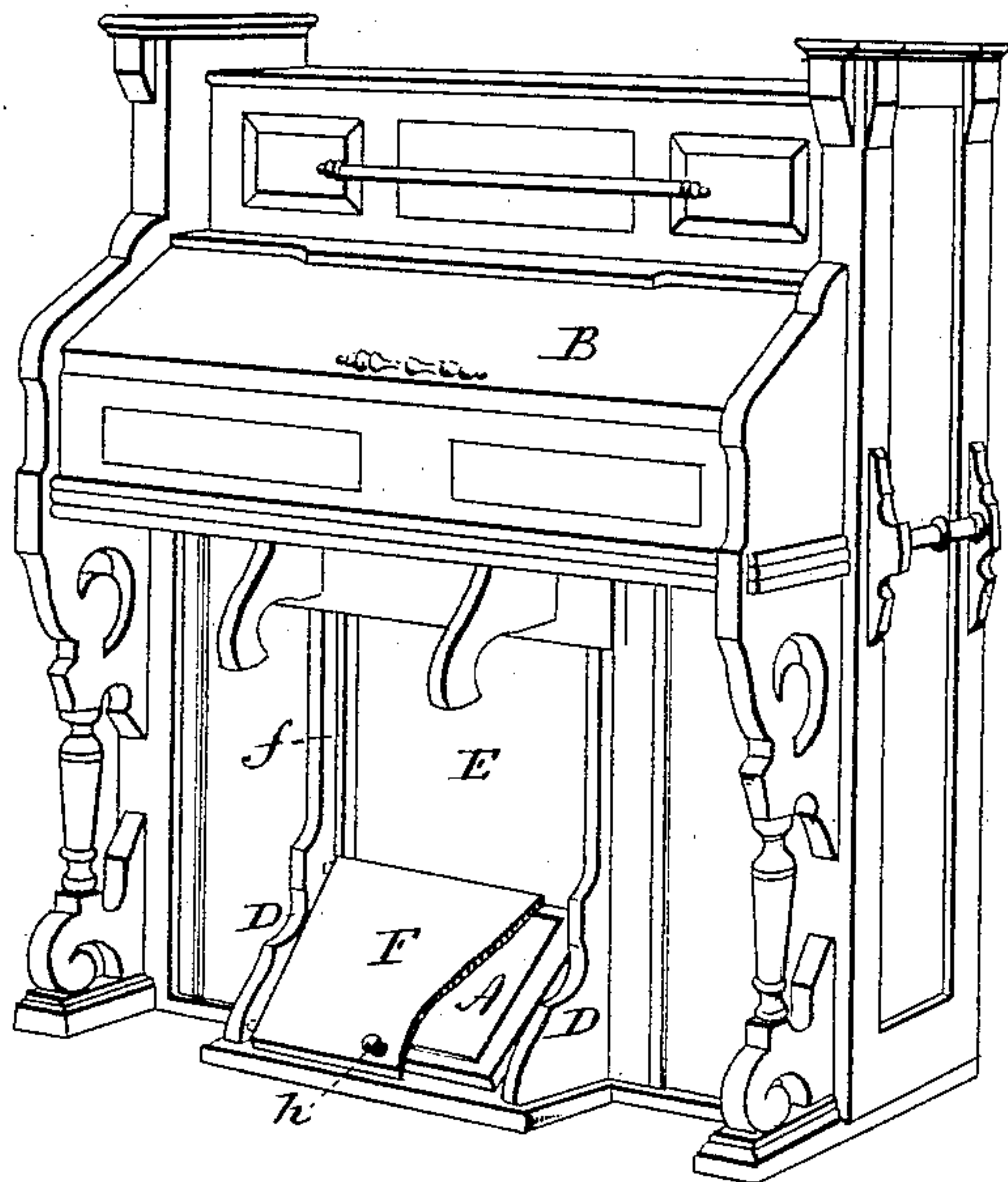


Fig. 2

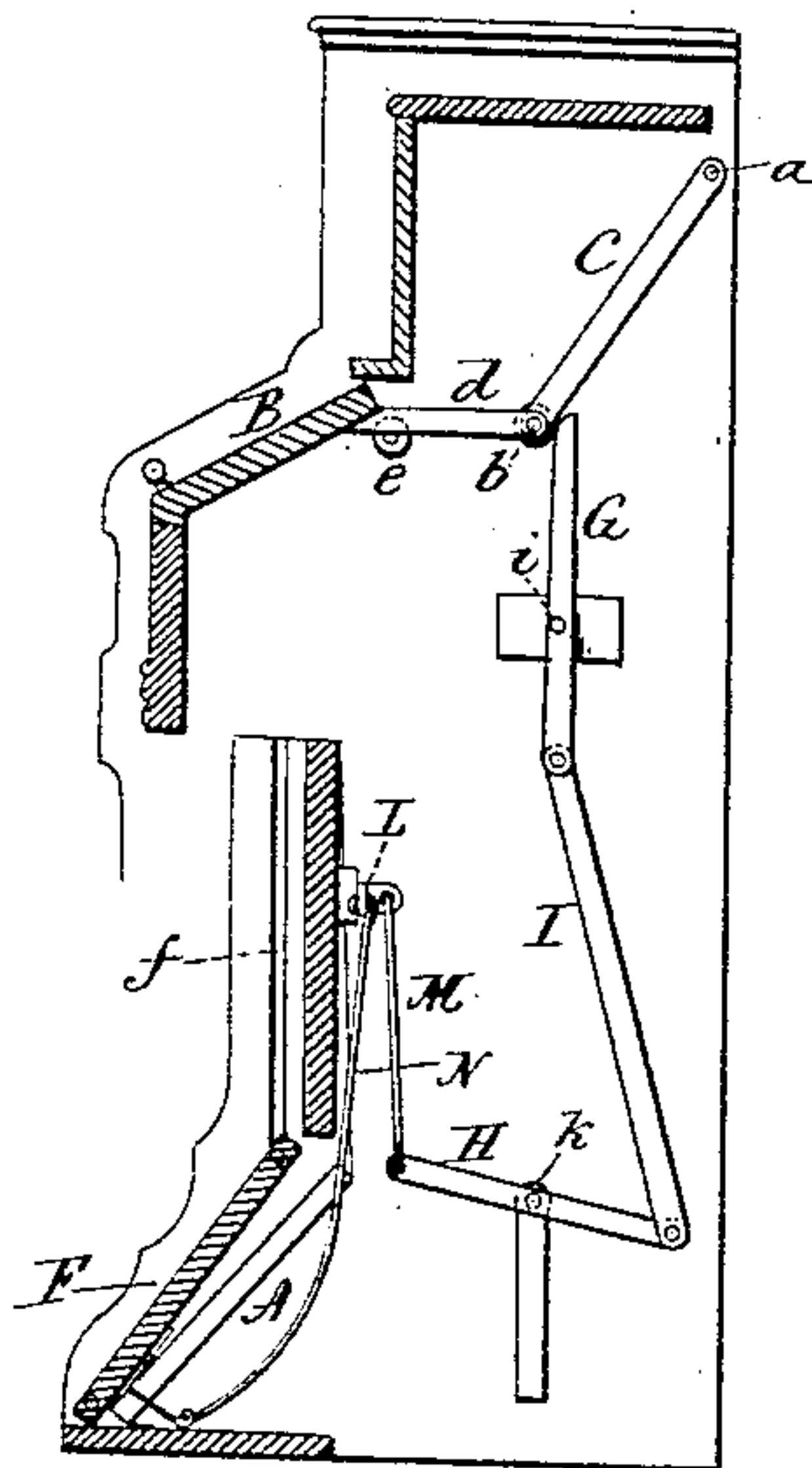


Fig. 3.

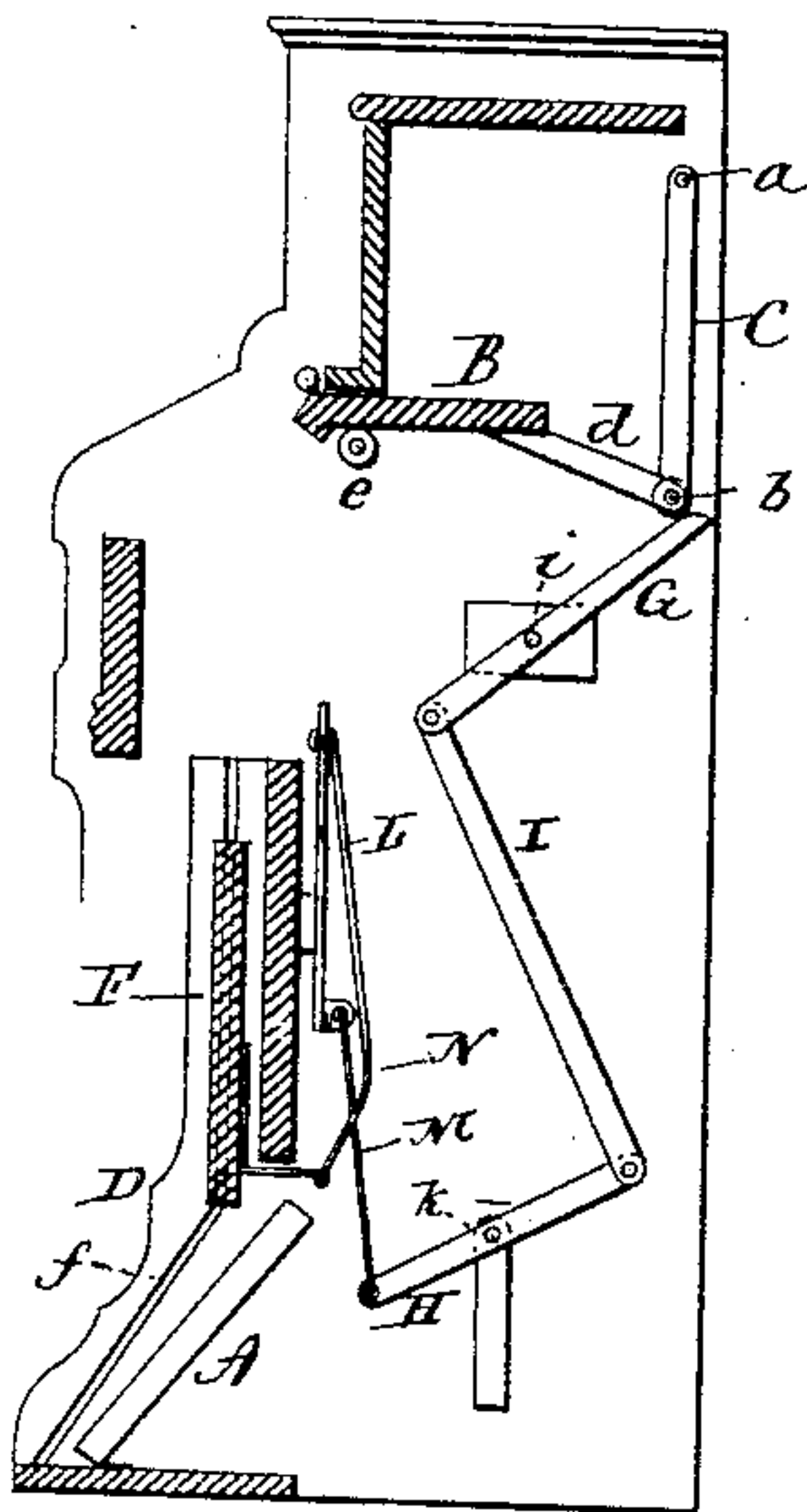


Fig. 4

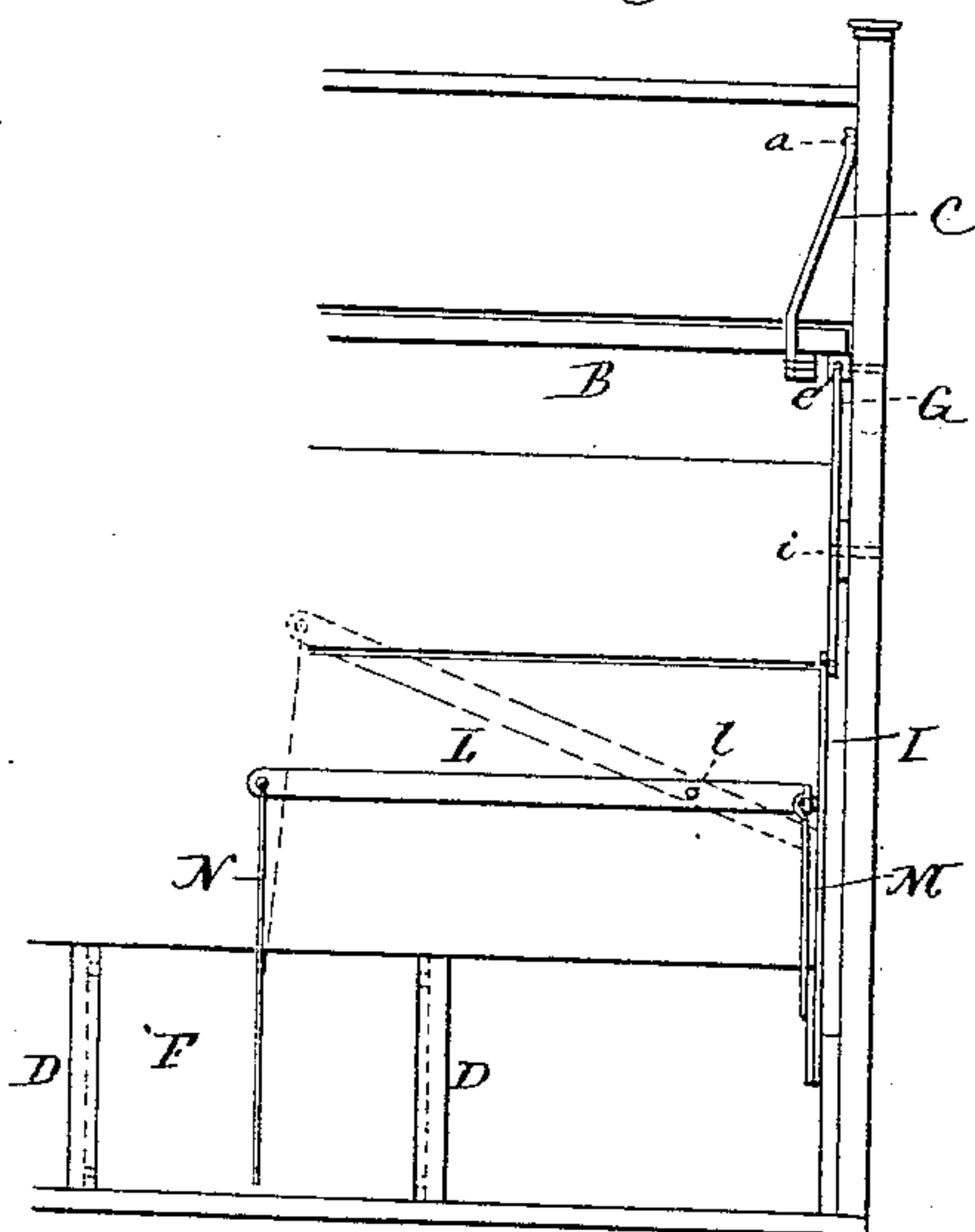
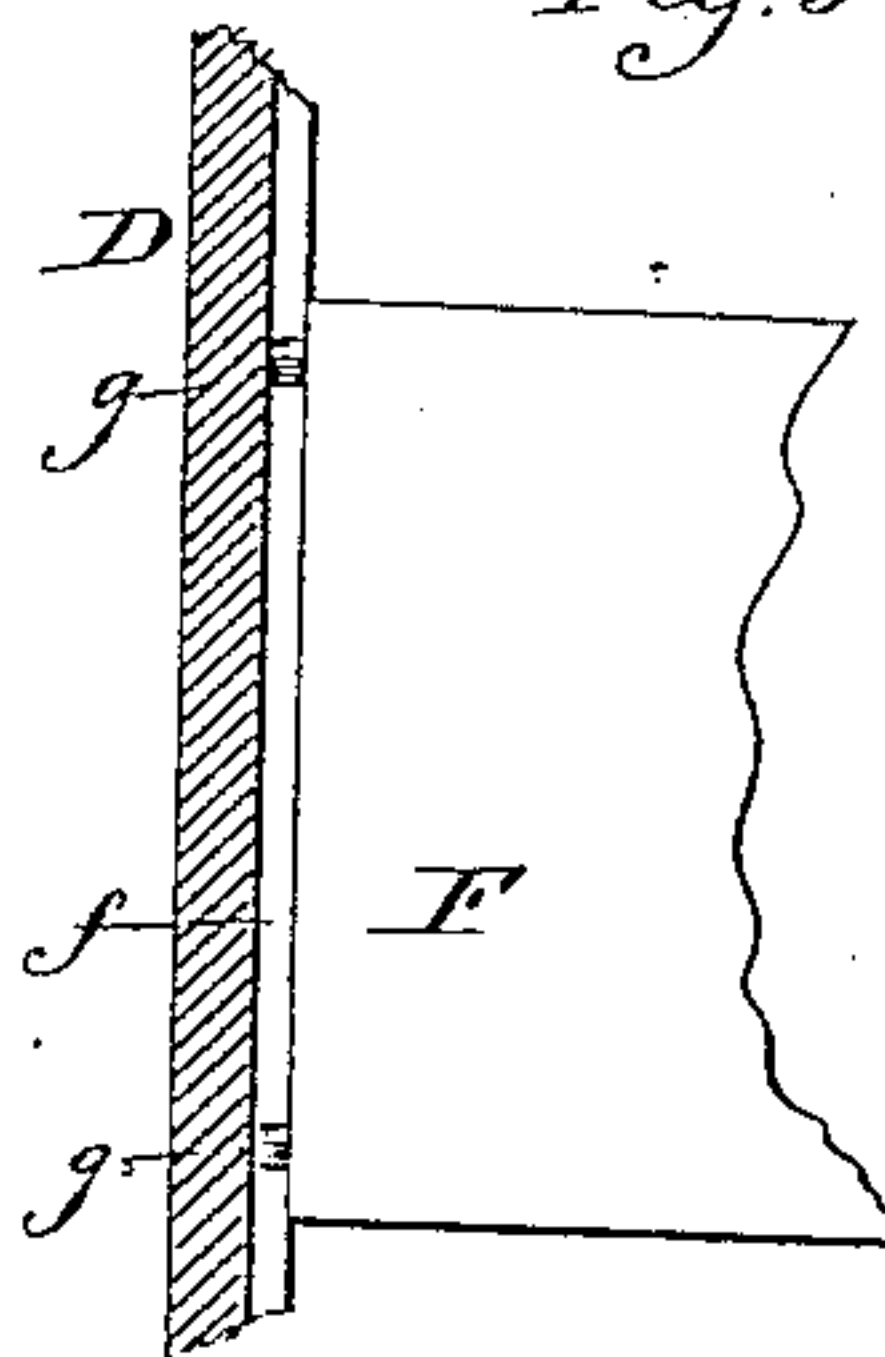


Fig. 5



Witnesses,
J. H. Shumway.
Fred C. Earle.

Charles H. Hubbell,
By atty. Inventor.
Fred C. Earle.

UNITED STATES PATENT OFFICE.

CHARLES H. HUBBELL, OF BIRMINGHAM, CONNECTICUT, ASSIGNOR TO THE
STERLING COMPANY, OF SAME PLACE.

ORGAN-CASE.

SPECIFICATION forming part of Letters Patent No. 387,884, dated August 14, 1888.

Application filed May 21, 1888. Serial No. 274,480. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. HUBBELL, of Birmingham, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Organ-Cases; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and
10 which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of an organ-case, showing a portion of the pedal-cover broken away; Fig. 2, a vertical central section
15 of the same, showing the key-board and pedal-cover in the closed position; Fig. 3, the same section as Fig. 2, showing the key-board and pedal-covers open; Fig. 4, an inside view of the front of the organ-case, the pedals removed; Fig. 5, a vertical section through the
20 grooves of one of the abutments, enlarged, showing the trunnions of the pedal-cover as working therein.

This invention relates to an improvement in
25 that class of organ-cases in which the blow-pedals are arranged in front, so that the performer also works the bellows.

In the more general construction of this class of cases the two pedals are arranged in a recess in the front of the case near the floor and
30 stand at a convenient inclination to receive the feet. These are usually covered with fabric or other material to give them a tasteful appearance; but after a little use this material becomes worn, so that its tasteful appearance
35 is lost. Again, the pedal-recess offers a convenient opening for mice to enter the organ, the result of which is well known. It also permits the entrance of dust into the interior
40 of the organ to the detriment of the instrument. Various devices have been applied to close the pedal-opening when not in use; but these have been more or less inconvenient, requiring some special manipulation for opening
45 and closing. Ordinarily the performer will close the key-board when through playing or practicing, thus necessitating the opening of the key-board before playing can begin.

The object of my invention is to take advantage of this opening and closing of the key-board to produce a simultaneous uncovering

and covering of the pedals; and the invention consists in the mechanism hereinafter described, and particularly recited in the claims.

The organ-case may be of any desirable shape
55 or style. The representation which I have adopted for illustrating my invention is that for a common reed-organ, and in which the pedals A are hung in a recess in the bottom front of the case in the usual manner. 60

B represents the key-board cover, which, instead of swinging, as usual in this class of organs, I hang within the case by links *c*, as
65 seen in Fig. 2. Preferably I provide two of these links—one at each end of the organ-case. They are hung by their upper end upon a pivot, *a*, and at their lower end they are attached by a pivot, *b*, to an arm, *d*, which extends inward from the rear edge of the cover B.

e represents a guide or roller fixed at the
70 end of the case upon the under side of the cover and near its upper edge, so that the cover may move backward and inward over the said guide *e*, as from the position Fig. 2 to that in Fig. 3. Under this movement the
75 cover rises from its inclined position, and, moving inward, assumes substantially a horizontal position; but the particular position of the cover within the case is immaterial to the invention, it only being essential that it shall
80 have an inward movement in opening.

Each side the pedal-opening an abutment, D, is provided in the usual manner, the pedals standing between the said abutments. These
85 abutments extend up on the front of the organ, forming a central panel, E. Upon the inner face of each abutment and outside the pedals A a groove, *f*, is formed, preferably inclined, substantially like the pedals in their normal
90 position; but above the pedals the groove *f* continues parallel with the face of the organ, as represented in Figs. 2 and 3. The grooves *f* in the respective faces of the abutment form guides in which the pedal-cover F may run. This cover in length corresponds to the distance
95 between the two abutments D and in width so that when in its down position, as seen in Figs. 1 and 2, it will completely inclose the pedals. Each end of the cover F is constructed with two trunnions, *g g*—one near each
100 edge, as seen in Fig. 5. These trunnions extend into the respective grooves *f* and form

the connection between the grooves and the cover, so that as the cover rises the trunnions will work through the grooves, the lower trunnions running through the lower or inclined part of the grooves, while the upper trunnions will work in the vertical portion of the grooves, so that the cover may readily slide from the closed position of Fig. 2 to the open position as seen in Fig. 3. This construction and arrangement of the cover is convenient for opening and closing the pedal-opening or covering and uncovering the pedals without being made to operate automatically—that is to say, the cover may stand in its closed position and be provided with a suitable handle or knob—say *h*, Fig. 1—by which it may be raised, and when raised caught in such raised or open position by any suitable spring such as employed for window-sashes and other purposes, which is too well known to require illustration or description. I desire, however, to make the pedal-cover to open under the opening movement of the key-board. To this end I arrange a system of levers between the key-board and the pedal-cover, so that as the key-board cover is opened the said lever-connection produces a corresponding opening movement of the pedal-cover, and accordingly when the key-board cover is closed the pedal-cover will also close. To make such a connection between the key-board and pedal-covers, I illustrate a simple arrangement of levers.

G represents a lever, hung upon a fulcrum on the inner side of the end of the case upon a pivot, *i*, and so as to swing in a vertical plane. One arm of this lever extends upward and in rear of the lever *C*, or a corresponding projection on the cover, so that as the cover is moved inward this lever will be turned, say, as from the position seen in Fig. 2 to that seen in Fig. 3. Upon the inside of the ends of the case I arrange a second lever, *H*, upon a fulcrum, *k*. One arm of this lever *H* is connected with the corresponding arm of the lever *G* by a connecting-rod, *I*, as represented in Figs. 2 and 3. Upon the inside of the front of the case a longitudinal lever, *L*, is hung upon a fulcrum, *l*, (see Fig. 4,) so as to swing in a plane parallel with the plane of the front of the case. This lever is arranged above the pedals. One arm of this lever *L* is connected with the corresponding arm of the lever *H* by a connecting-rod, *M*, and the other arm of the lever *L* is connected by a link, *N*, with the pedal-cover between the two pedals, so that the said link may work freely up and down between the pedals.

The operation of this system of levers is as follows: Standing in the closed position, as seen in Fig. 2, if the cover be opened, its opening movement will impart to the lever *G* the movement before described, taking it from the position represented in Fig. 2 to that seen in Fig. 3, and the swinging movement of the lever *G* imparts a corresponding swinging movement to the lever *H*, which is communicated

to the lever *L*. This movement of the lever *L* causes the arm to which the link *N* is connected to rise, as indicated in broken lines, Fig. 4, and in such rise the link-connection *N* causes the cover *F* to rise accordingly from the position seen in Fig. 2 to that in Fig. 3, and which position is retained by the resistance which the cover *B* offers to the return of the cover *F*; but when it is desired to close the organ the cover *B* is drawn forward to its closed position, which removes the support for the cover *F*, and that cover then slides down of its own gravity, returning the levers to their position, as seen in Fig. 2. Thus the cover of the pedals is operated automatically from the cover of the key-board both in opening and closing without inconvenience to the performer.

The cover *F* may be made highly ornamental and so as to make an attractive feature of the organ.

I am aware that covers for the pedal-opening of organ-cases have been arranged to slide in guides in opening and closing; but in such cases the sliding cover has been necessarily thrown into the inside of the case, whereas in my invention the sliding cover does not enter the case or interfere therewith, this advantage being due to the peculiar shape of guides in the abutments, between which the sliding cover is arranged.

I am also aware that covers for the pedal-openings have been connected with an inwardly-sliding cover of the key-board, so that the inward and outward movement of the key-board cover would correspondingly open and close the pedal-cover.

I am also aware that pedal-covers have been constructed and hinged so as to fold upward outside the case. In all these devices there is necessarily a very considerable space required between the pedals and the top of the pedal-opening for the operation of the pedal-covers. I therefore do not wish to be understood as claiming, broadly, a cover for the pedal-opening, or the combination of such a pedal-cover with a sliding key-board cover, whereby the opening and closing movement of the key-board cover is imparted to the pedal-cover, the essential feature of my invention being the groove formed in the abutments each side the pedal-opening, and which grooves are outside the organ-case, the upper part of the groove parallel with the front and the lower part inclined downward and outward above the pedals, with the covers supported in the said peculiar-shaped grooves, whereby when closed it stands in an inclined position over the pedals, but in opening it runs from its inclined position over the pedals into a vertical position outside and in front of the case.

I claim—

1. In an organ-case substantially such as described, the abutments *DD* each side the pedal-opening, and between which the pedals *A* are arranged, the said abutments constructed each with a corresponding groove upon the inner

face, said grooves inclined from their lower
end to a point near the top of the pedals,
thence running vertically outside of and par-
allel with the front of the case above the ped-
5 als, combined with a cover, F, arranged be-
tween said abutments, the said cover provided
with trunnions *g g* at each end near the upper
edge and like trunnions *g g* upon each end
near the lower edge, the said trunnions ex-
10 tending into said grooves, and the grooves
forming guides in which said trunnions will
work, substantially as described, and whereby
said cover may be guided in its opening and
closing movement.

15 2. In an organ-case substantially such as de-
scribed, the combination of the key-board cover
B, arranged to slide backward and inward in
opening, a pedal-cover, F, arranged between
the pedal-abutments of the case, the said abut-

ments each constructed with a groove, *f*, upon 20
its inner face, said grooves inclined from their
lower end to a point near the top of the ped-
als, thence running vertically outside of and
parallel with the front of the case, and into
which projections from the cover F extend as 25
guides for the movement of the said cover F,
a system of levers, substantially such as de-
scribed, between the said key-board cover B
and the said pedal-cover F, substantially as
specified, and whereby the opening and clos- 30
ing movement of the key-board cover imparts
a corresponding opening and closing move-
ment to the pedal-cover.

CHAS. H. HUBBELL.

Witnesses:

JOHN E. EARLE,
J. H. SHUMWAY.