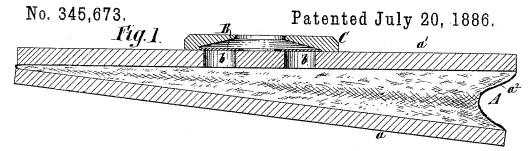
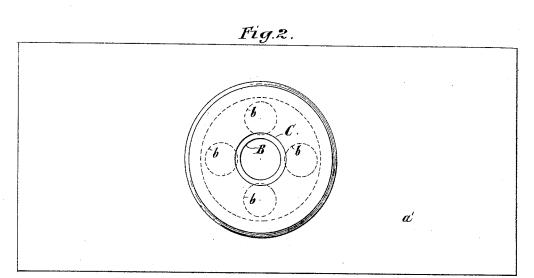
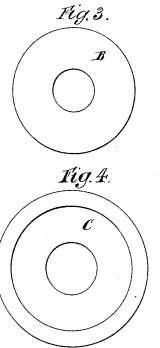
## J. H. CHASE.

### VALVE FOR ORGAN BELLOWS.







Witnesses Wind Lipsey M. Fowler

J. Herbert Chase by his attorneys, giffed & Amount

# UNITED STATES PATENT OFFICE.

### J. HERBERT CHASE, OF BROOKLYN, NEW YORK.

#### VALVE FOR ORGAN-BELLOWS.

SPECIFICATION forming part of Letters Patent No. 345,673, dated July 20, 1886.

Application filed October 5, 1885. Serial No. 178,973. (No model.) Patented in England September 14, 1883, No. 4,410,

To all whom it may concern:

Be it known that I, J. HERBERT CHASE, of Brooklyn, in the county of Kings and State of New York, have invented a certain new 5 and useful Improvement in Valves, of which the following is a specification.

My improvement relates particularly to the wind-inducing apparatus of musical instru-

ments.

o The object of the improvement is to provide a valve of simple construction which shall be generally efficient, and which, moreover, shall be very sensitive in its action.

I will describe in detail a valve embodying 15 my improvement, and then point out the novel

features in claims.

In the accompanying drawings I have illustrated my improvement in connection with a suction-bellows.

Figure 1 is a longitudinal section of the bellows and a valve embodying my improvement. Fig. 2 is a face view or plan of one of the bellows-boards, the valve, and a chamber containing the latter. Fig. 3 is a face view 25 of the valve detached. Fig. 4 is a face view

of the chamber detached.
Similar letters of reference designate cor-

responding parts in all the figures.

A designates the bellows. It is of ordinary 30 construction. The fixed board a may be secured to a support in any suitable manner. The movable board a' is secured to the fixed board, of flexible material—such, for instance, as india-rubber cloth—a'. The movable board

35 is capable of a swinging action, as usual. Motion may be imparted to it in the ordinary way. The movable board of the bellows has in it a series of holes, b. These holes extend right through it, and are arranged equidistant,

40 or in the form of a circle.

B designates a valve which controls the passage of air through the holes b. It is made of material which is thin and also flexible—such, for instance, as india-rubber cloth. It

45 is of annular form, and wide enough between its inner and outer circumferences to cover the holes b when it occupies a position close to the board. When it is moved away from

the board, air may pass through its central

opening and through the holes b.

C designates a chamber, which may advantageously be made of wood. It is affixed to the outer side of the movable board of the bellows over the holes b. The valve B is contained in it. The inner surface recedes from 5 the outer edge toward the center, where there is an opening, c.

When the movable board of the bellows swings outward, the valve B is caused to lie close to the outer surface or side, and then it 60 will prevent the passage of air through the holes b. When, however, the movable board of the bellows swings inward, or toward the fixed board, the valve will move away from the said movable board, and air may there-6; upon pass through the holes b, thence through the valve B and the chamber C.

It will be observed that the valve B is con-

fined about its edges.

What I claim as my invention, and desire to 70

secure by Letters Patent, is-

1. The combination, with wind-inducing apparatus, comprising a board or piece provided with a series of holes for the passage of air, of a valve of flexible material confined about its edge, but unconnected to said board or piece, adapted to cover the holes, and having a central opening inward of the range of holes, whereby when the valve is forced against the holes it may close them, and when it is 80 moved away from the holes air may pass through it and the holes, substantially as specified.

2. The combination, with wind-inducing apparatus, comprising a board or piece provided 8; with a series of holes for the passage of air, of a valve of flexible material adapted to cover the holes, and having a central opening inward of the range of holes, and a chamber containing the valve, confining the same about 90 its edge and having a central opening, substantially as specified.

J. HERBERT CHASE.

Witnesses:

James S. Greves, Wm. G. Lipsey.