G. BEACH.

Apparatus for Operating Organ-Bellows.

No. 168,212. Patented Sept. 28, 1875.

Fig. 1.

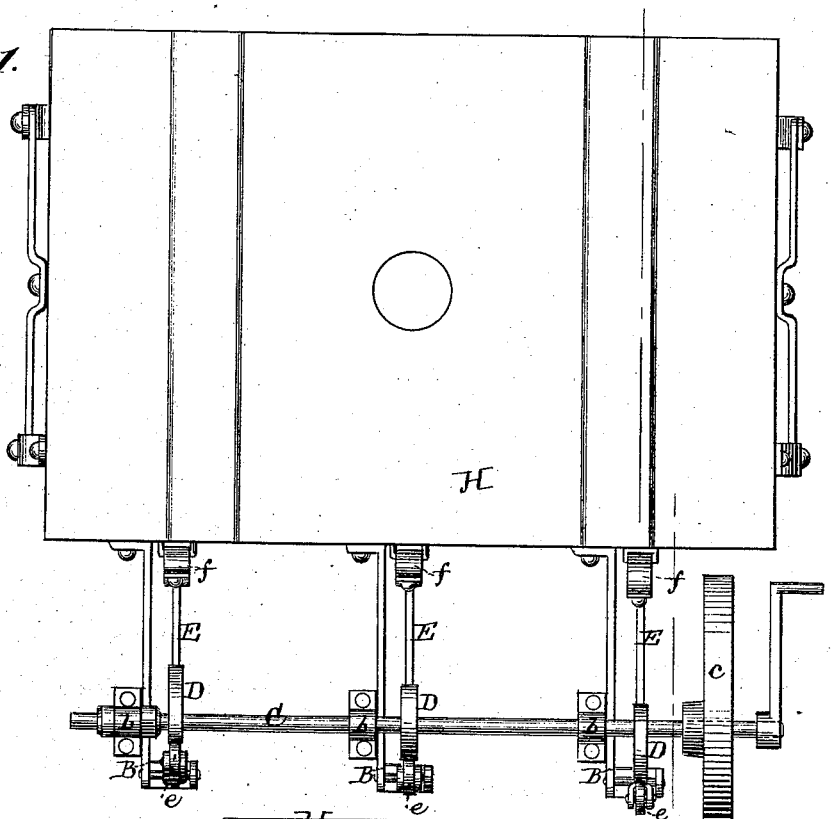


Fig. 2.

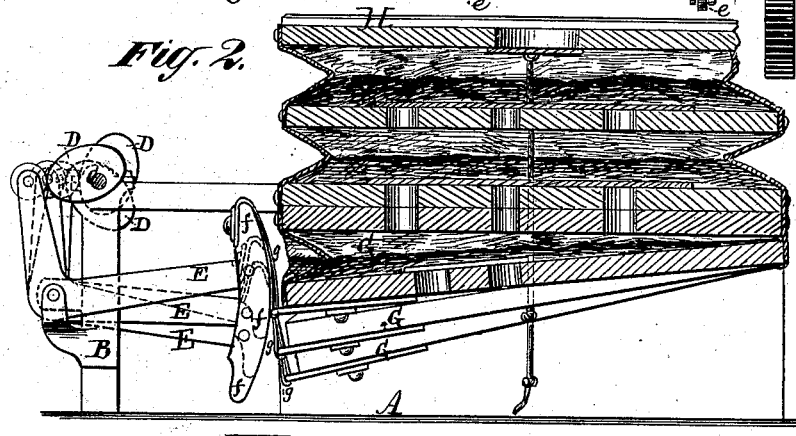
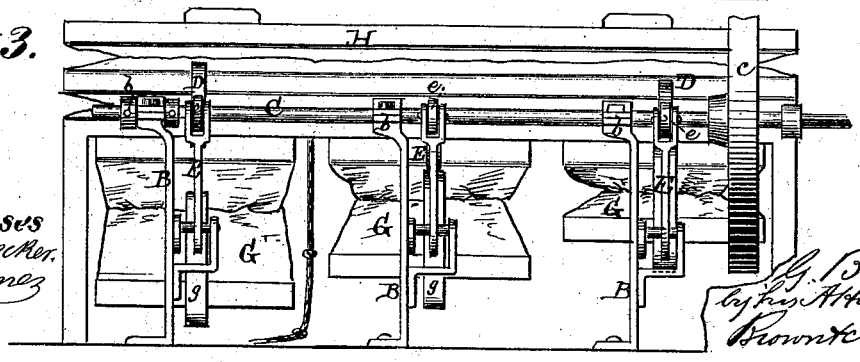


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

GILES BEACH, OF GLOVERSVILLE, NEW YORK.

IMPROVEMENT IN APPARATUS FOR OPERATING ORGAN-BELLOWS.

Specification forming part of Letters Patent No. **168,212**, dated September 27, 1875; application filed June 11, 1875.

To all whom it may concern:

Be it known that I, GILES BEACH, of Gloversville, in the county of Fulton and State of New York, have invented an Improved Apparatus for Operating Organ-Bellows; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms a part of this specification:

My invention relates to certain improvements which are intended more particularly for application to the reservoir and feeders of church-organ bellows, but which may be applied to all instruments operating in a similar manner.

The invention consists in a novel combination, with the reservoir and feeders and their operating levers, of a shaft, and a series of cams, arranged to operate successively upon the levers, as hereinafter particularly described, whereby the wind is supplied to the reservoir in a steady and continuous flow without any vibration or lack of uniformity, such as heretofore experienced; also, in a novel construction and arrangement of the levers, as hereinafter particularly described.

In the accompanying drawing, Figure 1 is a top view, representing my invention applied to an organ-bellows. Fig. 2 is a vertical section, taken in the line *x x* of Fig. 1. Fig. 3 is a side view.

A represents the base upon which the apparatus rests, from which base rise a series of standards, B. The upper ends of the standards are provided with bearings, *b*, in which works a shaft, C, having a driving wheel or pulley, *c*. To the shaft C are attached a number of cams, D, corresponding with the number of feeders. To the standards B are pivoted a series of elbow-levers, E, also corresponding with the number of feeders. Each lever has at the end of one arm a friction-roller, *e*, for engagement with the face of one of the cams, and at the end of the other arm is a lifter, *f*, which is connected by a strap, *g*, with the bottom of one of the feeders G. The lifter *f* has an arc-shaped face to render the lifting motion steady and uniform. The reservoir H is located immediately over the feeders, and both the reservoir and the feeders are of the usual construction, and connected with each other in the usual manner. As the shaft C revolves the cams D oscillate the levers E, causing them to operate the feeders and to supply wind to the reservoir. The cams D are of elliptical or other suitable form, and each cam is attached to the shaft in such a position as to enable it to give a lifting and compressing motion to the feeder during about two-thirds of the revolution of the shaft. The cams are attached to the shaft in such positions with relation to each other as to cause them to operate upon the levers successively instead of simultaneously, so that before one cam and lever have ceased to lift the feeder with which they are connected the next cam and lever will begin the operation of lifting the next feeder, and where three or more feeders are employed the first feeder is again filled, and its compression is initiated before the third feeder has become entirely compressed and exhausted, and this effect is produced throughout the entire series of feeders. By this means the wind is supplied by the feeders to the reservoir in a steady and continuous flow, without the vibration and lack of uniformity sometimes experienced in apparatus constructed and operating in the usual way. There may be any suitable number of feeders and their operating cams and levers.

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

1. The combination, with the reservoir and feeders of an organ-bellows, and the levers for operating said feeders, of the shaft and a series of cams, substantially as shown and described.

2. The elbow levers E, provided with friction-rollers *e*, and arc-faced lifters *f*, in combination with the cams D and feeders G, substantially as shown and described.

GILES BEACH.

Witnesses:

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