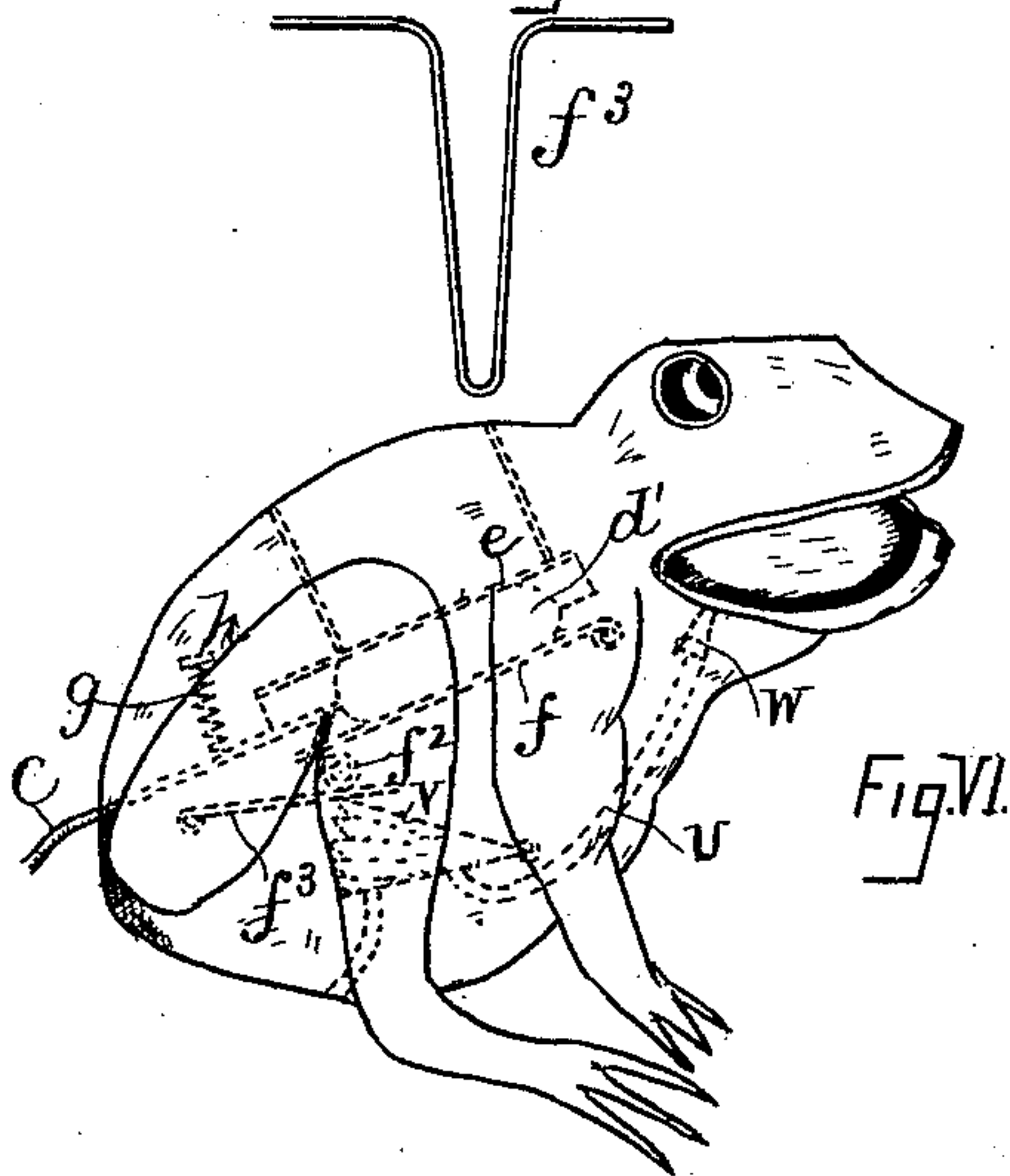
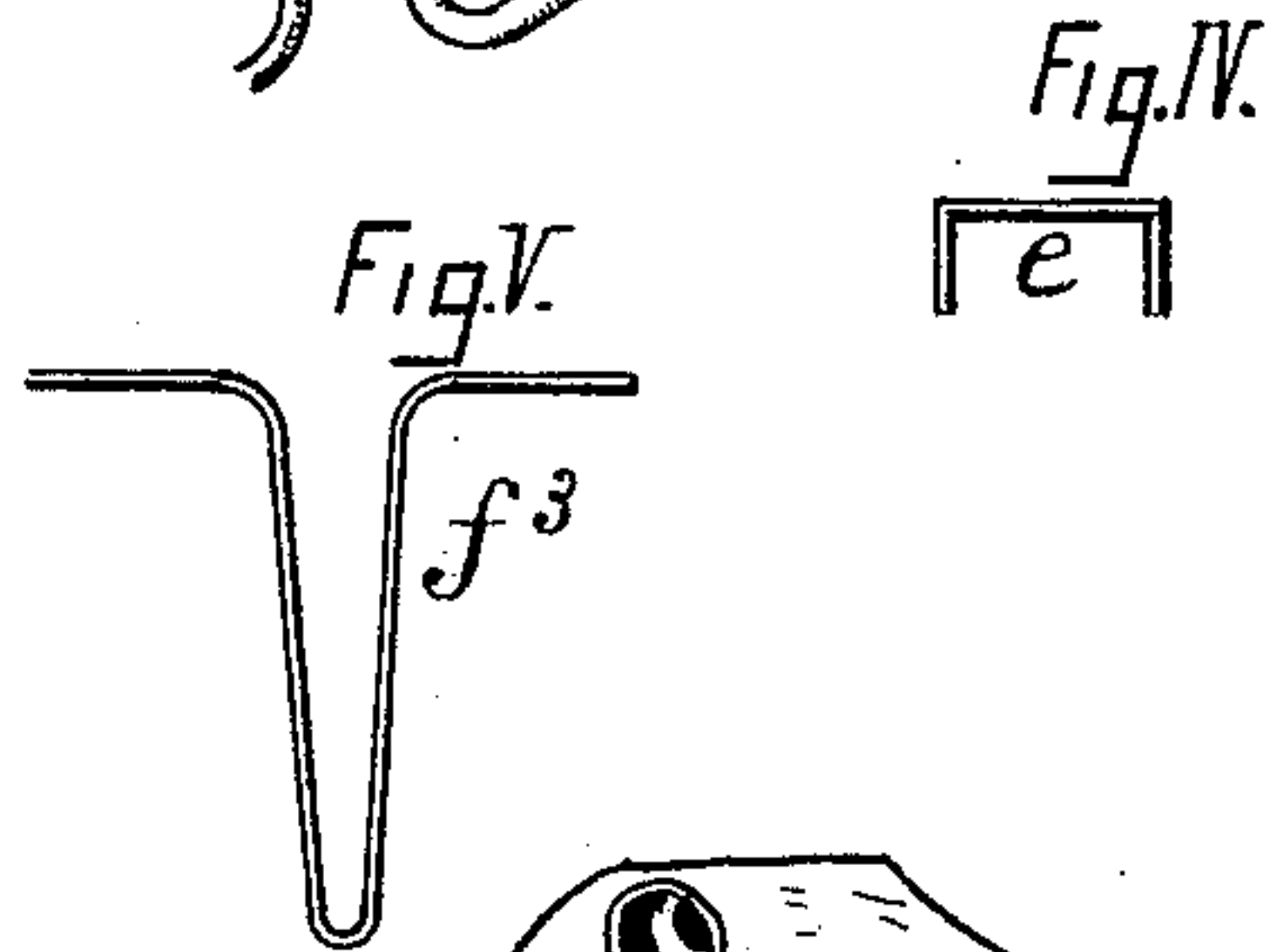
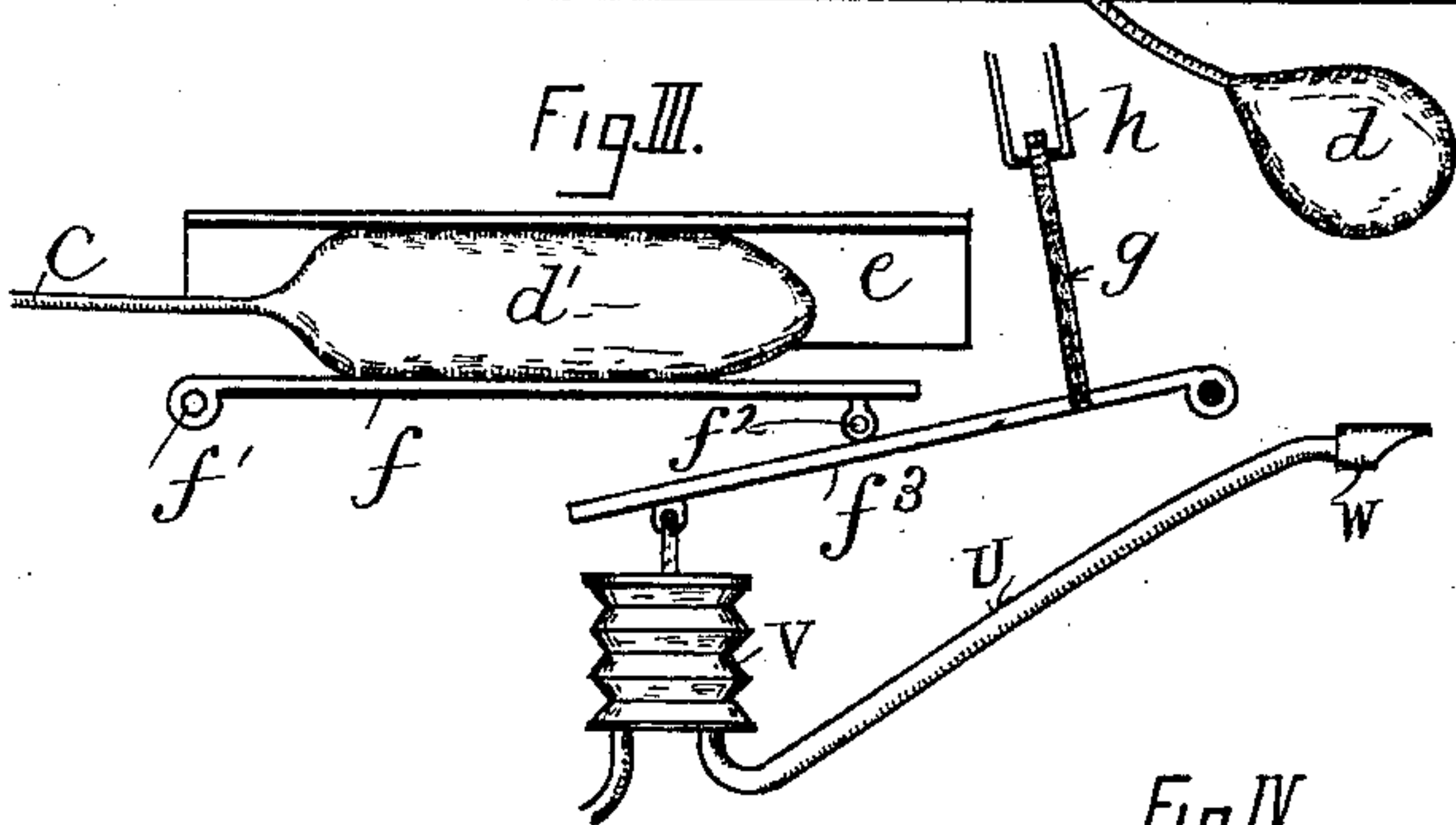
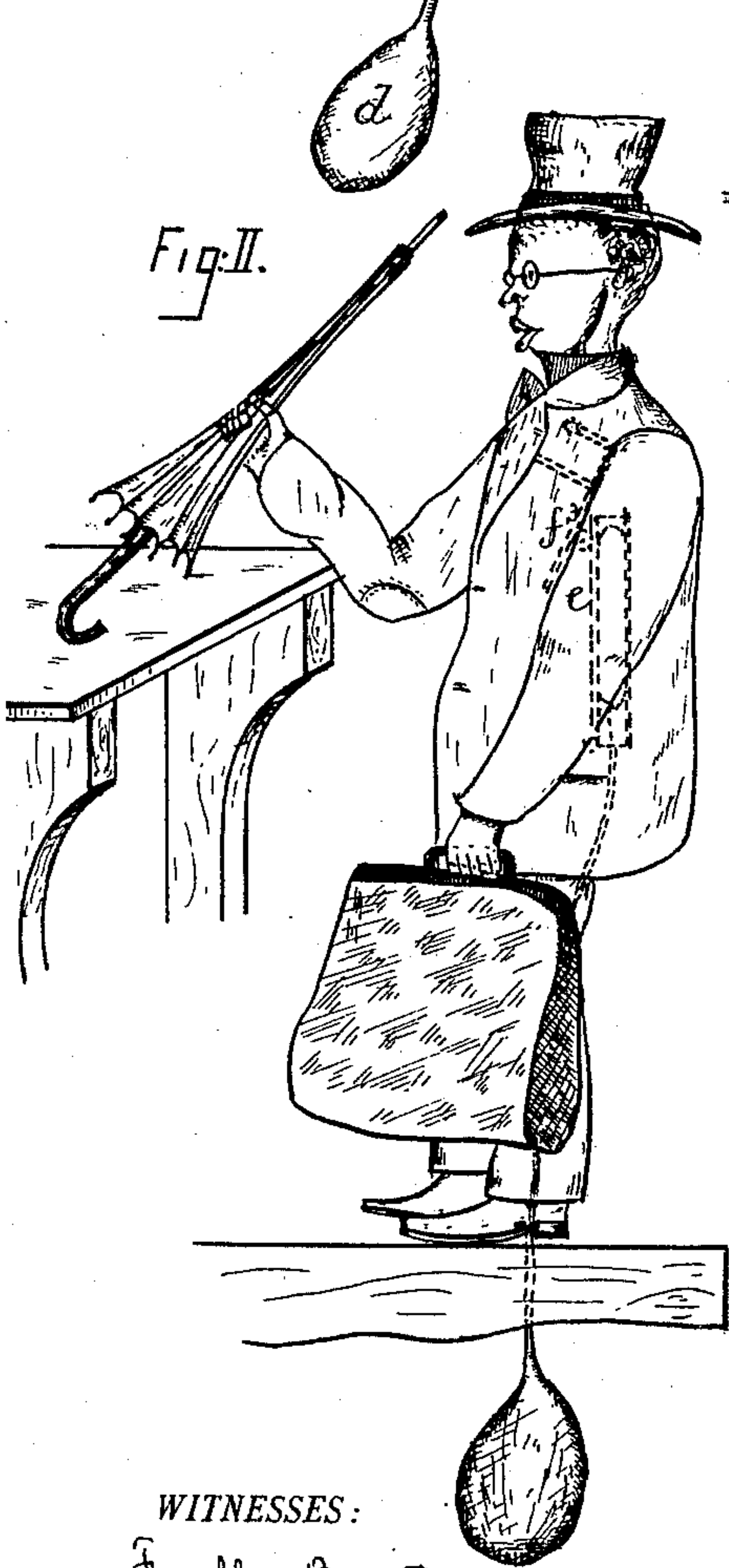
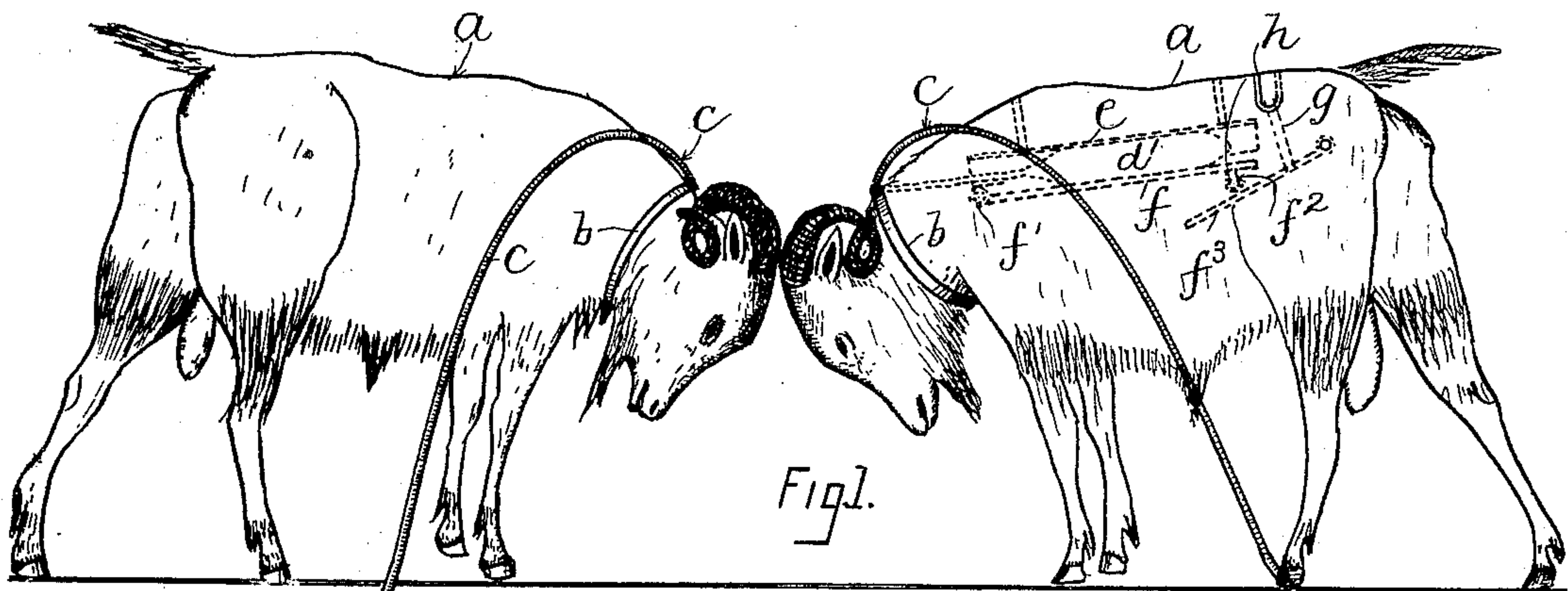


(No Model.)

J. H. LANCASTER.
TOY.

No. 437,209.

Patented Sept. 30, 1890.



WITNESSES:

Franklin Barrett.

Geo. E. Pouches

INVENTOR.

James H. Lancaster

UNITED STATES PATENT OFFICE.

JAMES H. LANCASTER, OF NEW YORK, N. Y., ASSIGNOR TO THE IVES,
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TOY.

SPECIFICATION forming part of Letters Patent No. 437,209, dated September 30, 1890.

Application filed March 17, 1890. Serial No. 344,168. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. LANCASTER, a citizen of the United States, and a resident of New York city, in the county of New York, State of New York, have invented certain new and useful Improvements in Mechanical Toys, of which the following is a full, clear, and exact specification.

My invention relates to a new device for pneumatically moving the whole or any part or parts of automaton or toys, and also for simultaneously operating musical or croaking or barking devices, whereby they are given a life-like and also a spasmodic movement to any desired portion of the body or limbs, and also producing an intonation.

The invention consists of two or more compressible bulbs connected one with the other by either a flexible or stiff tube, one or more of the said bulbs being adapted to be connected with or in close contact with operative mechanism or mechanisms within or otherwise connected with the automaton, while the other bulb is intended to be compressed by the hand or foot, all of which will be fully described hereinafter, and pointed out in the claim.

In the drawings, Figure I represents a side elevation of two automaton, one of which has the interior operative mechanism indicated by dotted lines. Fig. II is a side elevation of another form of automaton having its interior mechanism indicated by dotted lines. Fig. III represents a part sectional and elevational view of the operative mechanism detached from the automaton and having the sound-producing appliance attached thereto. Fig. IV is an end view of the interior-bulb trough. Fig. V is a plan view of the purchase-bar. Fig. VI represents the operative mechanism arranged within a frog, which when operated upon gives it both a frog-like or leaping movement, and also produces a sound.

Similar letters refer to similar parts throughout the drawings, in which *a* in Fig. I represents two automaton in the shape of butting goats. *b* is the collar, through which passes the tube *c*, one end of which is hermetically sealed to the hand-bulb *d*. The other end of said tube *c* is likewise connected with the in-

terior bulb *d'*, the latter of which is held in position by means of the trough *e* and the flap-board *f*, one end of the latter fulcrumed at *f'*, while the free end is mounted with a friction-roller *f*² on its underside. This roller is adapted to engage with the purchase-bar *f*³, which is fulcrumed to the hind legs of the goat. There is connected with this purchase-bar either a coiled spring or a rubber band *g* or other suitable retracting device. One end of this rubber band *g* is secured to a staple *h* or other suitable device secured to the interior of the goat beneath its back. The rear legs of the goats are loosely mounted to the body, thus enabling the body to arise and descend without moving them out of their vertical alignment. The two goats, as shown, require two separate operating-bulbs and two distinct sets of mechanism.

There are many ways in which automaton of this class can be adapted and applied, and I may place the goats upon a platform with grooves for the rear feet to travel in, thus confining the direction of their movements. The same mechanism may be placed within a figure, as shown in Figs. II and VI, whereby the arms and legs, respectively, are made to rise and fall, and also a croaking, barking, or other sound may be produced and emitted.

It will be obvious that many modifications might be produced without departing from the spirit of my invention. It will be observed that I can at the same time connect two or more interior bulbs and also any suitable musical or other sound-yielding device with the interior mechanism, the latter being somewhat as shown in dotted lines at *i* in Fig. III, and also as shown in dotted lines, Fig. VI, this being nothing more than an ordinary bellows *V*, with metallic reeds *U*; or I may use a whistle *W* or other sound-yielding device, according to the person, reptile, animal, bird, or other figure represented.

It must be understood that I do not wish to confine myself to the exact construction of or the kind or number of figures and objects or to the sound-yielding device as herein shown, as many other forms may be adopted, all of which being within the range of my invention, and I may of course dispense altogether

with the sound-yielding portion of the invention, if such is preferred. If desired, more than one bulb may be placed within the frame of the object, and thus cause more than one
5 portion or member of the body to move simultaneously by one pressure on the external bulb, or two distinct sets may be worked in one automaton.

Modus operandi.—By compressing the external bulb *d* the interior bulb *d'* is caused to
10 expand, thereby pressing down the flap-board *f*, also causing the purchase-bar to descend slightly, which of course tightens the spring or stretches the rubber band, and also de-
15 presses the bellows *i* and yields a sound. This operation causes the goats in Fig. I to rear on their hind legs or jump, according to arrangement, and by releasing the pressure upon the hand-bulb *d* the rubber band *g* will retract,
20 thus quickly bringing the figures back to their normal position or causing the frog, Fig. VI, to croak and leap about. Of course the movement of the figures is controlled by the pressure upon the external hand bulb or bulbs
25 aforesaid and the retractive action of the spring or elastic band or bands.

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

The combination, with automaton, of the
30 bulbs and tube connecting the bulbs one with the other, the trough for containing one of the said bulbs, a flap-board fulcrumed to the side of the figure on its interior, a friction-roller
35 on the end of the flap-board, a purchase-bar fulcrumed to the rear of the automaton, and a retracting device having one end connected with said purchase-bar, the other end secured
40 to the automaton above and said purchase-bar, the latter being so arranged as to operate a sound-yielding instrument, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of February, 1890.

JAMES H. LANCASTER.

Witnesses:

K. REDDY,
FRANKLIN BARRITT.