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PATENTED JULY 30, 1907.

C. LEHMANN.
AUTOMATIC COLOGNE FOUNTAIN.

APPLICATION FILED OCT. 4, 1905.

2 SHEETS—SHEET 1.

Fig. 2.

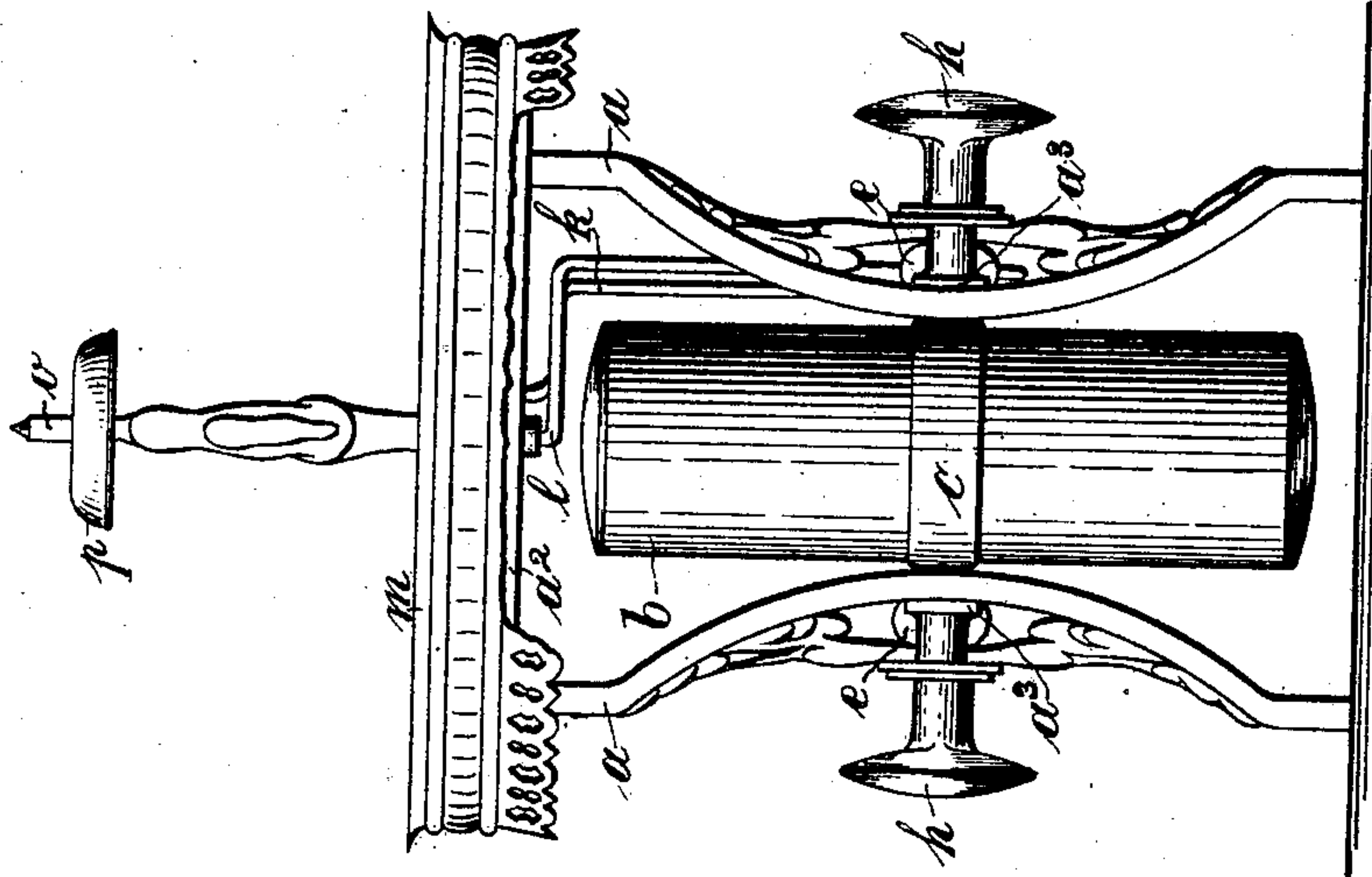
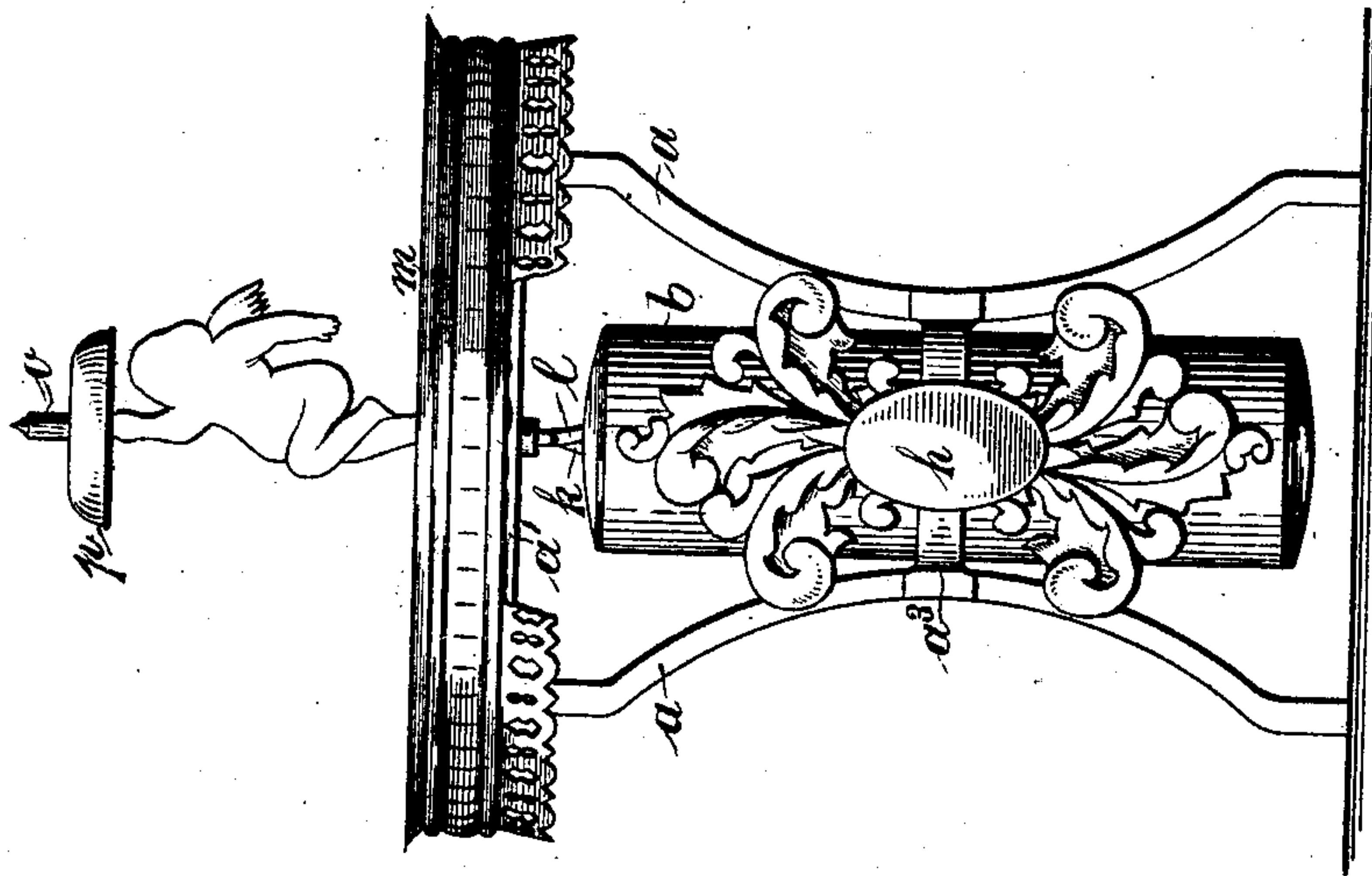


Fig. 1.



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AUTOMATIC COLOGNE-FOUNTAIN.

No. 861,372.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed October 4, 1905. Serial No. 281,230.

To all whom it may concern:

Be it known that I, CHARLES LEHMANN, a citizen of the United States of America, and a resident of Jersey City, in the county of Hudson, State of New Jersey, have invented certain new and useful Improvements in Automatic Cologne-Fountains, of which the following is a specification.

This invention has reference to automatic fountains and pertains particularly to small automatic fountains which are used indoors.

It is the special object of this invention to procure automatic fountains which are especially well adapted for use as cologne fountains. When operated the fountain issues a fine spray of cologne which fills the air throughout the whole room with an agreeable odor or perfume. These fountains therefore are very desirable for ladies' dressing rooms, parlors, etc.

The fountain is operated by simply turning the cylindrical receptacle containing the cologne at an angle of 180°. If this be done then the fountain issues automatically for a certain length of time the cologne in a fine spray. When the fountain stops the rotary movement of the tubular receptacle is repeated which takes but one moment and the fountain will again issue the fine spray of cologne for a certain period of time. While in operation the fountain does not require any attention whatsoever. When once filled the cologne is continuously and automatically circulated through the apparatus and used over and over again until its fragrance is exhausted. The cologne atomizers heretofore employed simply issued the spray as long as the user blew out the liquid or compressed the rubber ball. Furthermore the cologne was not saved. The small quantity issued by the atomizer during one operation was fully expended.

My automatic cologne fountains are manufactured in an ornamental style therefore they not only are useful and agreeable but are also ornamental in private residences.

The invention further consists in the construction of details and the arrangement of parts.

It is illustrated in the accompanying drawings in which:—

Figure 1 represents in front elevation an automatic cologne fountain which embodies my invention, Fig. 2 illustrates same in side elevation, Fig. 3 shows same in central vertical section, Fig. 4 shows in vertical section a detail on an enlarged scale, and Fig. 5 illustrates another detail in vertical section.

Similar characters of reference denote like parts in all the figures.

The automatic cologne fountain consists essentially of a support or frame, a cylindrical receptacle mounted

within the frame, a basin on the support above the receptacle and a device embodying a nozzle for the outflow of the cologne. The support or frame consists of four legs designated by the letter *a* which are bent inwardly as shown in Figs. 1, 2 and 3. The legs are arranged in two pairs, each pair being connected by a metal bar *a*¹, see Fig. 3. These two bars *a*¹ are connected rectangular in their center by a broad metal bar *a*². Each pair of legs is connected in their center portion by a curved metal brace *a*³ each having a circular central opening and thereby forming bearings for the cylindrical receptacle *b* which contains the cologne. The cylindrical receptacle *b* which I for brevity shall call the cylinder has in its center portion on the outside a metal ring *c* permanently secured thereto and integral therewith. This metal ring extends into a cone on each of two opposite sides, these are designated by the letters *d* and *d*¹. The cones pass through the openings in the curved brace or bearing *a*³ whereby the tube is mounted between the two pairs of legs of the frame. On the inner portion of the cone a metal sleeve member *e* is provided which has a conical opening corresponding with the shape of the cone and flattened on the sides. Between the metal sleeve *e* and the brace or bar *a*³ there is a tightening rubber washer *f*. The front end of the cone is further reduced in diameter and has a screw thread *g*. A handle *h* having a neck *h*¹ and an enlarged front portion *h*² is screwed on the screw *g* on each cone. It is evident from the above that by turning the handle *h* the tube *b* is also turned because the cone is integral with the tube and the handle screwed to the front end of the cone.

The cylinder *b* has in its center portion a partition *b*¹ which divides the inner space into two halves. A plunger is provided within the cylinder. The plunger consists of two circular metal weights *i* which are connected by a rod *i*¹, said rod passing through a stuffing box *j* located in the partition *b*¹. Each weight of the plunger is provided with a cup shaped leather washer *i*². On top of this leather washer there is a metal plate *i*³ which is somewhat reduced on its outer end. The reduced end of the rod *i* has a screw thread on which is a nut *i*⁴. The connecting rod *i*¹ is reduced in diameter where it passes through the weights *i* forming thus a shoulder on each side against which the weight *i* rests. The weight, cup shaped leather washer and metal plate are thus kept in position by the shoulder on the connecting rod and the nut *i*⁴. The cylinder *b* has an opening *b*² at each end allowing thus air to pass in and out of each half interior space. Near the partition *b*¹ the cylinder has an opening *b*³ communicating with the lower half of the cylinder and an opening *b*⁴ com-

communicating with the upper half of same. The cone *d* which is integral with the ring *c* and cylinder *b* has formed therein a channel *c*¹ which communicates with the opening *b*³ and a channel *c*² which communicates with the opening *b*⁴ of the cylinder. Both channels issue on the surface of the cone in the place where the flat sleeve member *e* is located. The metal sleeve *e* has a vertical boring or channel *e*¹ which coincides with the channel *c*¹ in the cone and a second vertical channel *e*² which coincides with the channel *c*² of the cone. It is evident that the cone acts as a valve key.

A small tube *k* is soldered on to the sleeve member *e* below establishing communication with the boring *e*¹, the channel *c*¹ and thereby with the lower half of the interior of the tube *b*. Likewise a small tube *l* is soldered on to the upper part of the metal sleeve *e* which establishes communication with the boring *e*², the channel *c*² and thereby with the upper half of the interior of the tube *b*. The small tube *k* is bent and extends upward, then it is bent again and passes through the broad connecting metal bar *a*² and the cologne basin *m*, whereby communication is established between the basin *m* and the lower half of the interior of the tube. The small tube *l* extends upward and is bent, it then passes through the broad connecting bar *a*² to the center of the basin *m*. Here the tube has a vertical extension *l*¹ to which is connected a nozzle or spout. Thus communication is established between the upper half of the interior space of the cylinder *b* and the nozzle or spout by means of the channel *c*² the boring *e*², the small tube *l* and the extension *l*¹ of said tube.

The nozzle or spout is shown in detail in Fig. 4. The extension *l*¹ of the small tube *l* is provided with a screw thread at its top end. A pin *n* is permanently secured to the top end of the vertical extension *l*¹ of the small tube *l*. The pin is curved so that its point is in the vertical center line of the top opening. The nozzle or spout has a screw thread on the inside and is screwed on the top end portion of the small tube *l*¹. The pointed end of the nozzle has an opening *o*¹ through which the cologne is discharged. This arrangement allows of regulating the flow of the liquid. If the nozzle is screwed down the pin partly enters the discharge opening *o*¹ whereby the outflow of the perfume is regulated. When completely screwed down the pin prevents the outflow of the perfume thus the nozzle acts as a regulating and stopping device. Below the nozzle a small overflow basin *p* is secured to the small tube *l*¹. It has openings *p*¹ through which the collected perfume flows down to the large basin *m*.

Assuming now that the apparatus is empty and the plunger down. Now cologne is poured into the basin *m* and the handle *h* turned through an angle of 180° or half a circular revolution when the plunger will be in the position indicated in Fig. 3. By virtue of the weight of the plunger same will gradually sink down whereby the lower weight *i* will gradually recede from the partition *b*¹ and the air below will pass out through the lower opening *b*². At the same time air will rush into the upper half of the tube through the upper opening *b*³. As a consequence the space between the lower weight *i* and the partition *b*¹ will be increased and the air therein somewhat rarefied whereby suction is produced and the perfume in the basin will run down

through the tube *k*, the boring *e*¹, the channel *c*¹ and the opening *b*³ into the lower half of the interior space of the cologne receptacle. Now the handle *h* is again turned one-half revolution whereby the position of the cylinder with plunger is reversed, the weight *i* formerly below is now on the top and the perfume likewise is now in the upper half of the cologne receptacle. The weight of the plunger again forces same down and the cologne below same then is forced through the opening *b*⁴ in the now upper half of the receptacle, its corresponding channel in the cone, the boring *e*² in the stationary sleeve member *e*, the tube *l*, its extension *l*¹ and through the nozzle *o*. It is plainly seen that the stationary sleeve *e* with the tubes *k* and *l* always retain their positions but the channels *c*¹ and *c*² reverse their positions at each half revolution of the cylinder. When turning one half revolution the lower channel *c*¹ turns 180° and thereby connects with the upper boring *e*² and the tube *l* while the upper channel *c*² turns 180° and thereby connects with the lower boring *e*¹ and the tube *k*. In this way communication is established alternately between the basin *m* and the upper and lower half of the cylinder *b*. Likewise communication is established alternately between the nozzle or spout and the upper and lower half of the cylinder.

In order to give the apparatus a neat appearance the top extension *l*¹ is placed within a small figure representing an angel or some other beautiful design. The basin *m* is surrounded by an ornamental border as indicated in Figs. 1, 2, and 3. The space between each pair of legs is covered up by ornamental configurations as shown in Figs. 1 and 2.

Having thus described my invention I desire to secure by Letters Patent:—

1. An automatic cologne fountain in which a small quantity of cologne is automatically and continuously circulated until evaporated comprising a basin at the top and a divided cylinder below mounted movably in a substantial frame and adapted to admit air alternately into the top and bottom compartment, a double piston with piston rod entirely within the cylinder, means for establishing communication alternately between the basin and the compartment which at the time is at the bottom, and a spout connecting with the compartment which at the time is at the top.

2. In an automatic cologne fountain in which a certain quantity of cologne is automatically and continuously circulated until evaporated, a cylinder having a horizontal central partition with a stuffing box mounted therein, a small top and bottom opening in its vertical center line for admitting air alternately into the two compartments during the operation of the device and two small openings in one side wall close to the partition one right above and one right below same, a double piston within said cylinder, a connecting piston rod for both located entirely within the cylinder, a cone with knob secured to the center of the cylinder where the openings are provided, two channels within said cone passing through same, and two tubes coinciding with the channels of the openings in the cylinder.

3. In a cologne fountain in which a certain quantity of cologne is automatically and continuously circulated until exhausted a basin at the top mounted on substantial frame work, a cylinder movably mounted in said frame work below the basin, a central partition with stuffing box within the cylinder and a small top and bottom opening in its vertical center line for admitting air alternately into the two compartments during the operation of the device, a double piston within said cylinder, a communicating piston rod for both located entirely within the cylinder, means for establishing communication alternately between

the basin and the compartment of the cylinder which at the time is at the bottom, and a spout in connection with the compartment at the time located at the top and adapted to regulate the outflow of the cologne and stop same
5 entirely.

4. In an automatic cologne fountain of the class described a device for regulating the outflow of the cologne as to quantity and stopping same entirely if desired consisting of a small tube threaded on the outside, a pin permanently secured to the said tube and curved so that its
10 point is in its vertical center line, and a spout tapering on

the top and threaded on the inside and adapted to be screwed up and down whereby the outflow of the cologne is regulated as to quantity and completely stopped when said spout is sufficiently screwed down to entirely close its
15 outflow opening.

Signed at New York, N. Y. this 3rd day of October 1905.

CHARLES LEHMANN.

Witnesses:

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