

No. 638,416.

Patented Dec. 5, 1899.

A. J. LUTZ.
TOY FIREWORKS.

(Application filed Mar. 17, 1899.)

(No Model.)

Fig. 1.

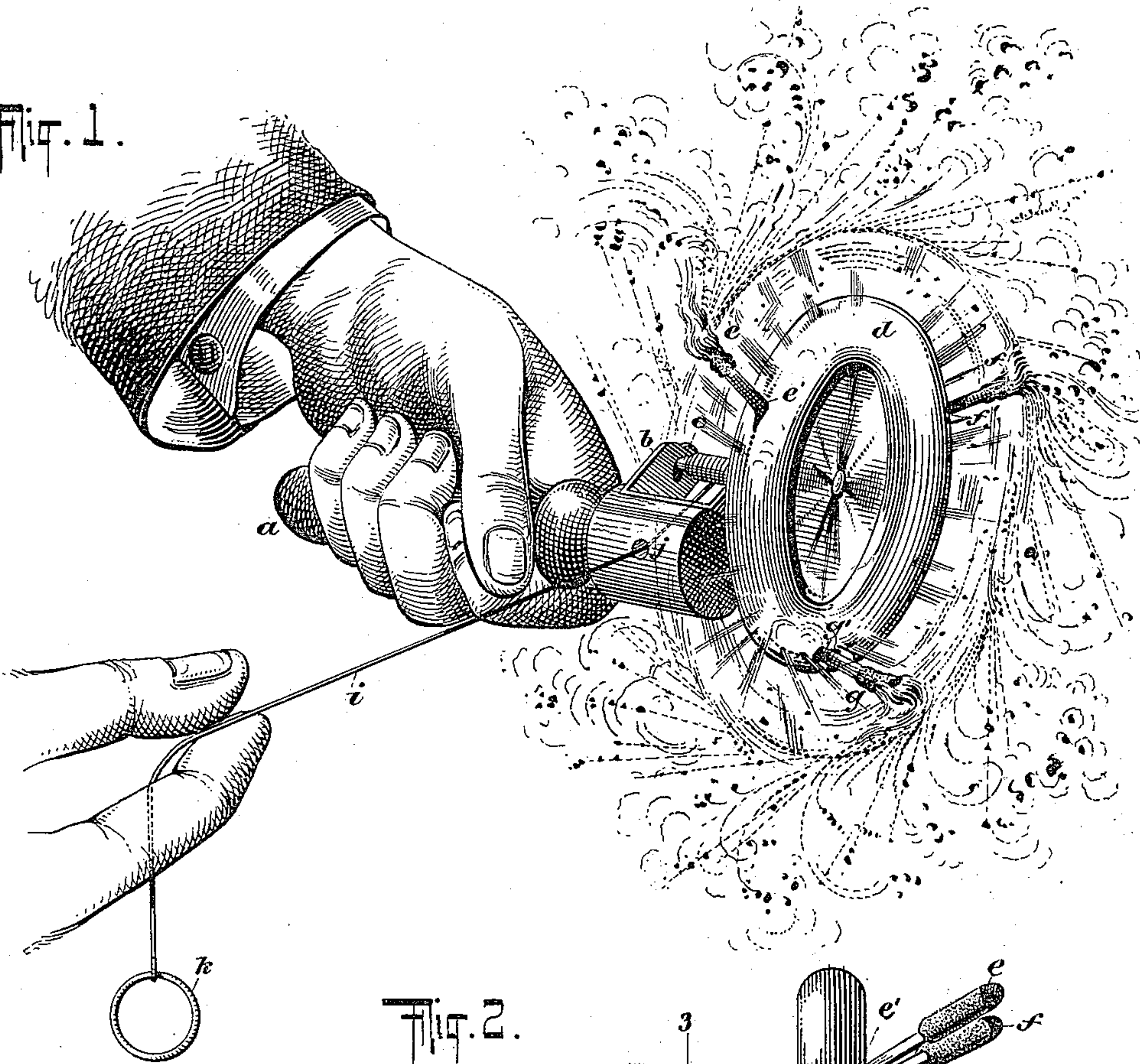


Fig. 2.

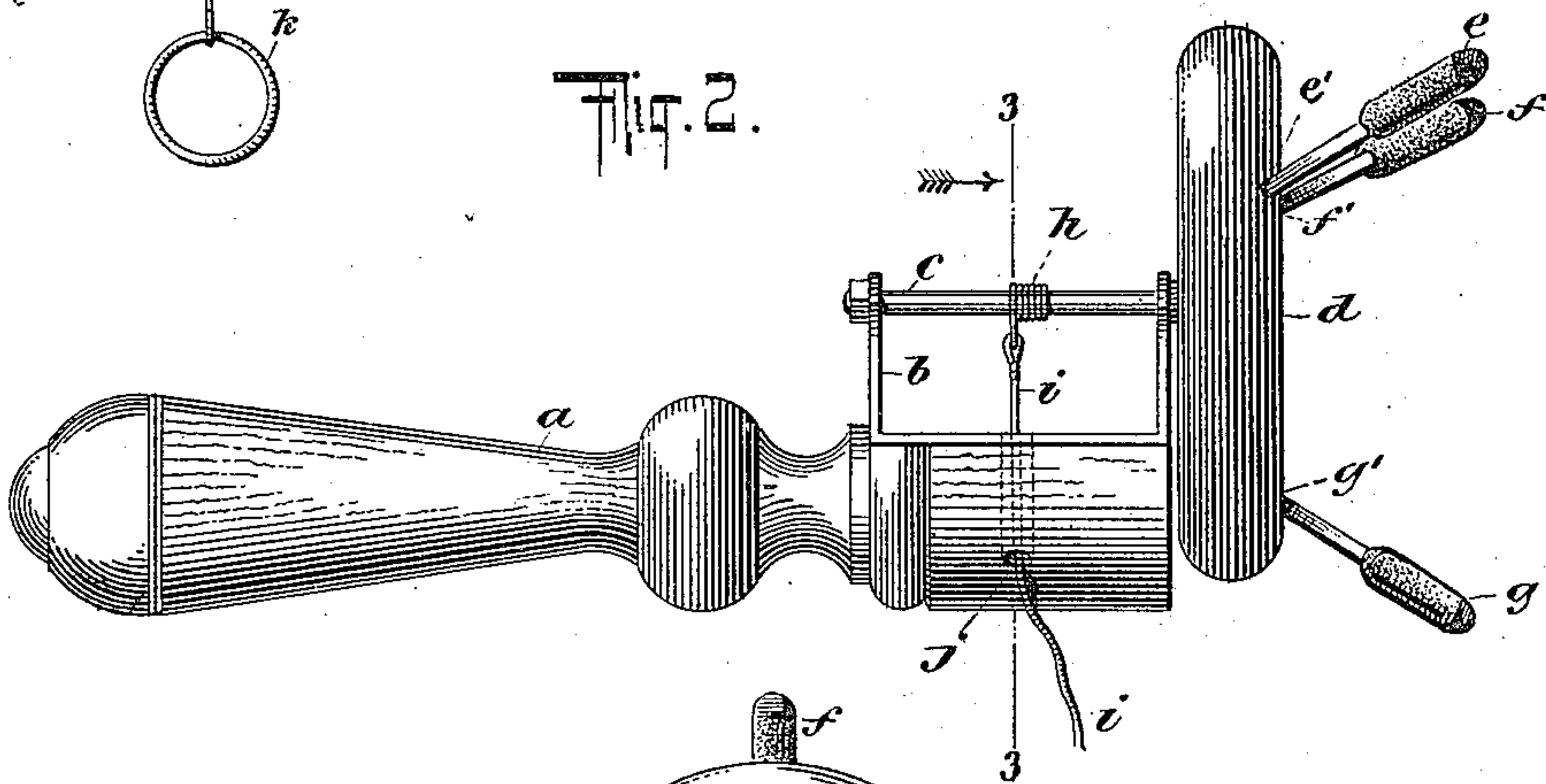
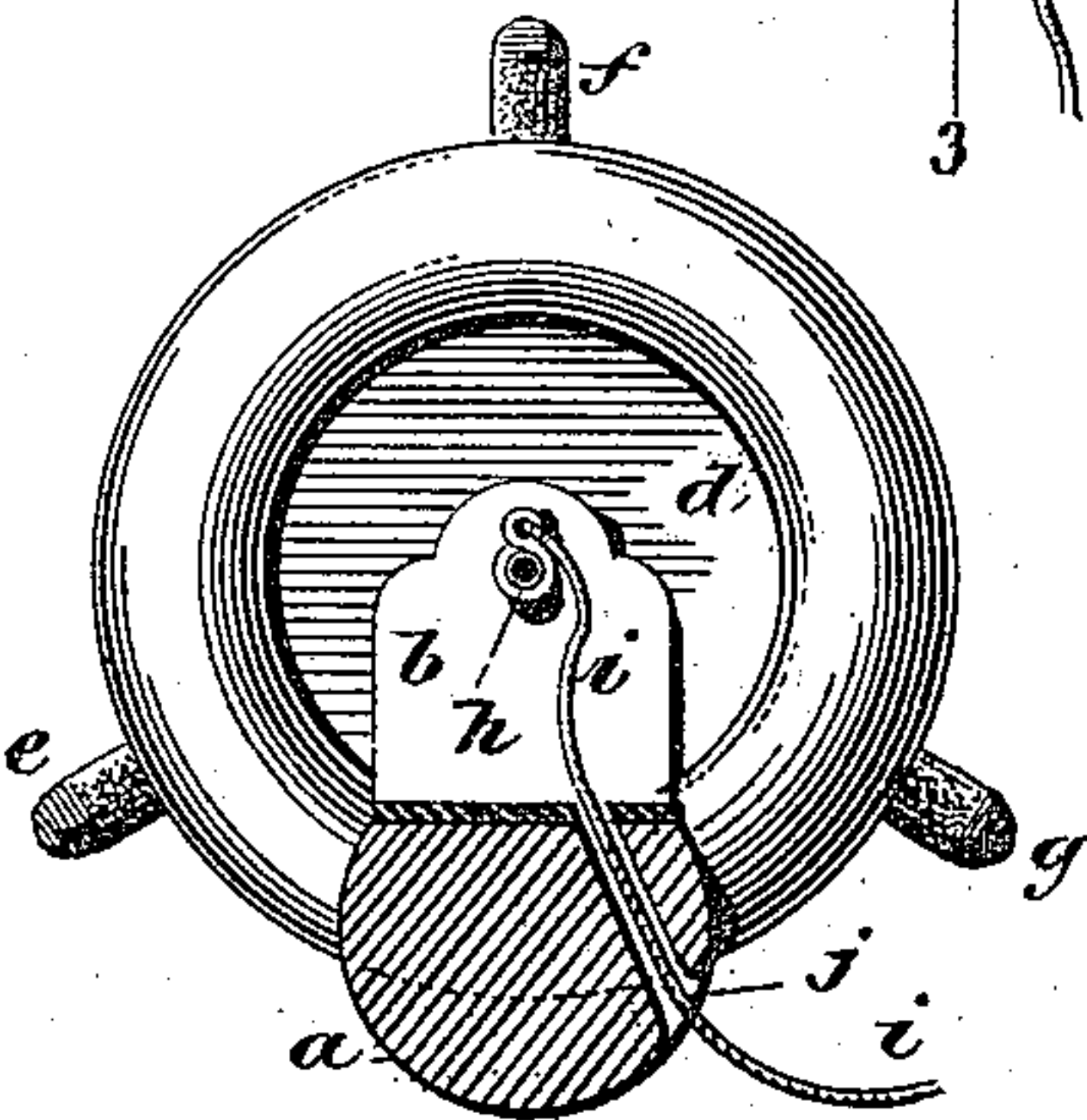


Fig. 3.



WITNESSES:

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TOY FIREWORKS.

SPECIFICATION forming part of Letters Patent No. 638,416, dated December 5, 1899.

Application filed March 17, 1899. Serial No. 709,460. (No model.)

To all whom it may concern:

Be it known that I, ALBERT J. LUTZ, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Toy Fireworks, of which the following is a full, clear, and exact description.

My invention relates to toy fireworks, and has for its object to produce a device for exhibiting pyrotechnic effects resembling pin or catharine wheels. The device is susceptible of modification, and consequently I would have it understood that I do not limit myself to the structure herein shown.

In the accompanying drawings I have shown a mechanically-actuated device for exhibiting pyrotechnic effects in which my invention is embodied.

In the drawings, Figure 1 represents the device in action. Fig. 2 is a side view of the device with the fusees in place thereon. Fig. 3 is a section on line 3 3 of Fig. 2, looking in the direction of the arrow on said Fig. 2.

The device shown in the drawings consists, essentially, of a handle *a*, supporting an attached frame *b*, in which a shaft *c* is journaled. The shaft *c* carries a peripherally-weighted rotating body or wheel *d*, which is provided with means for securing fusees *e f g*. In the present instance these fusee-supporting means are shown as holes *e' f' g'*, which are shown in the present instance as being set at various degrees of inclination with respect to the central plane of rotation of the wheel *d*, as will clearly appear from an inspection of Figs. 1 and 2, so that the heads of the different fusees will rotate in different circular paths. The shaft *c* is provided with cord-attaching means *h*, fast thereon, to which

the free end of a cord *i* is secured, which cord passes through an aperture *j* in the handle *a* and is preferably provided at or near its end with a ring or button *k*. The fusees employed by me are preferably of the kind known as "Chinese matches"—that is to say, matches provided with enlarged elongated heads which when lighted sputter and throw off tiny stars and sparks, so that when the fusees are lighted and the wheel rotated, first in one direction and then in the other direction, by pulling upon and releasing the cord *i*, the rotating wheel or fusee-carrier will present the appearance of a very effective pin or catharine wheel.

It will be obvious that the fusee-carrying means or wheel may be rotated by clockwork or other "mechanical" means, within which term I desire also to include an electric motor.

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

1. In a device for exhibiting pyrotechnic effects, the combination of a rotating wheel with means for rotating the same alternately in opposite directions and means for securing fusees to the said rotating wheel, substantially as described and for the purposes set forth.

2. In a device for exhibiting pyrotechnic effects, the combination of a rotary body, means for securing fusees or fireworks thereto and a motive device for rotating the said rotary body in a continuous manner.

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Witnesses:

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