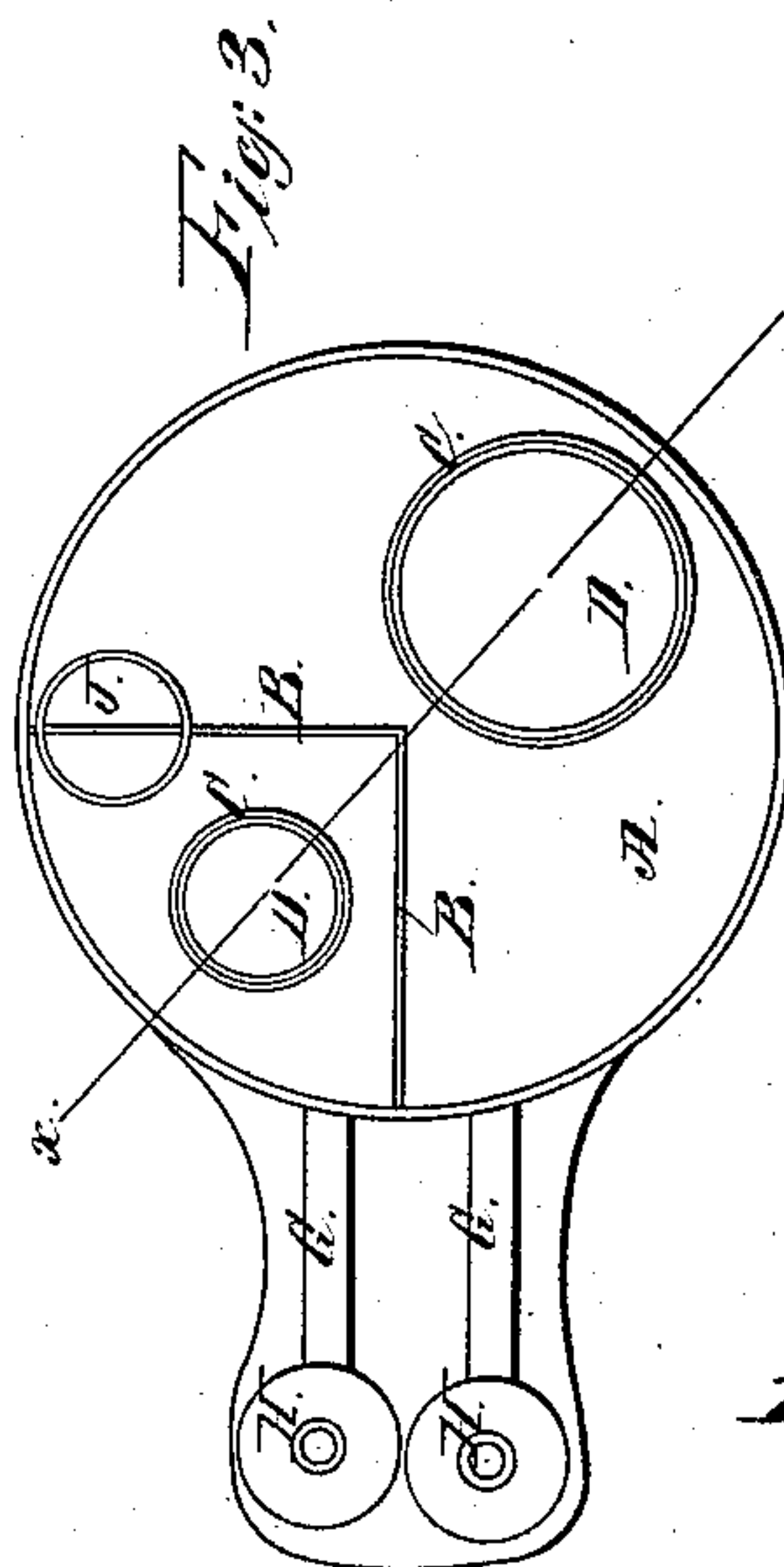
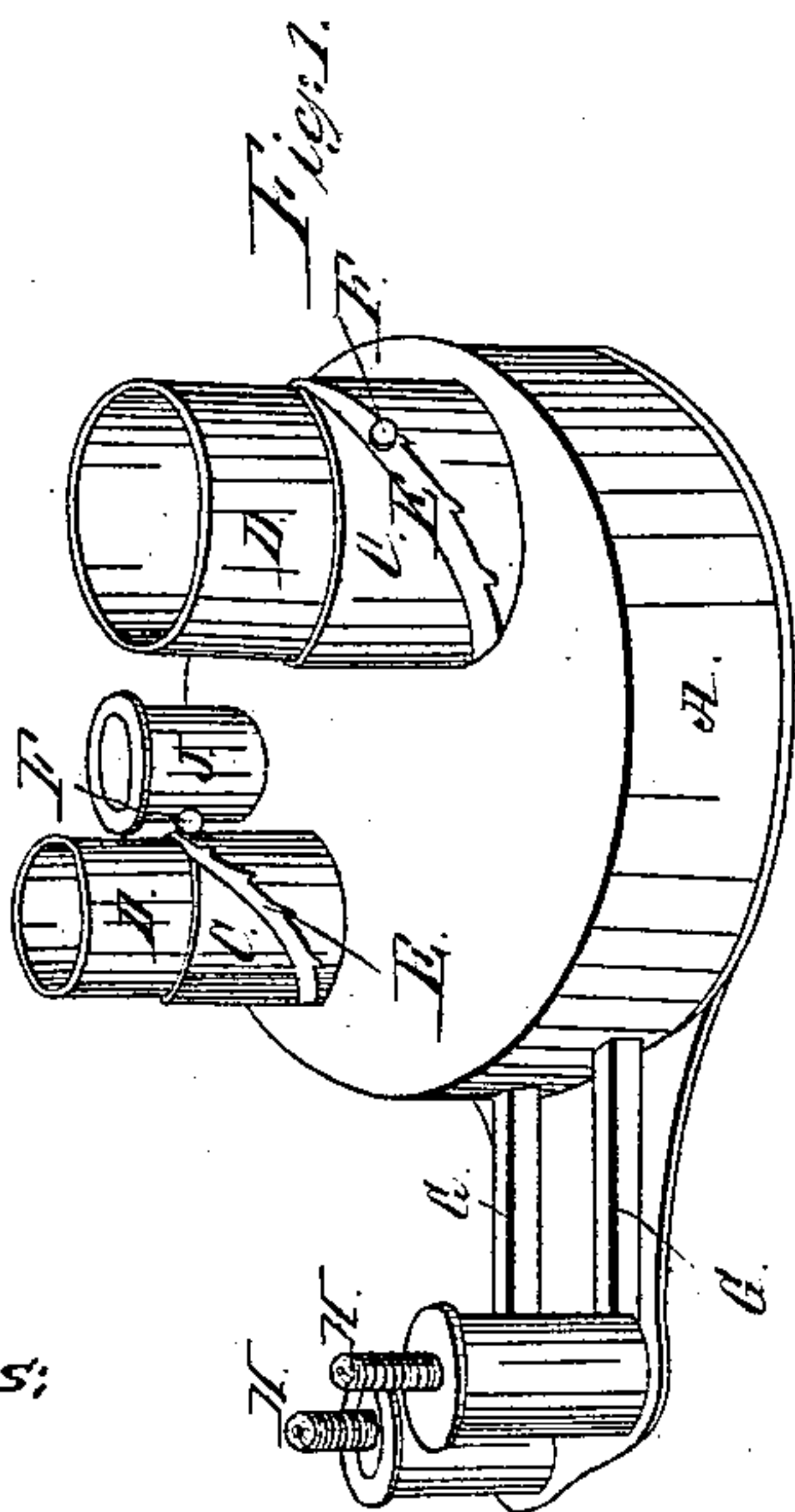
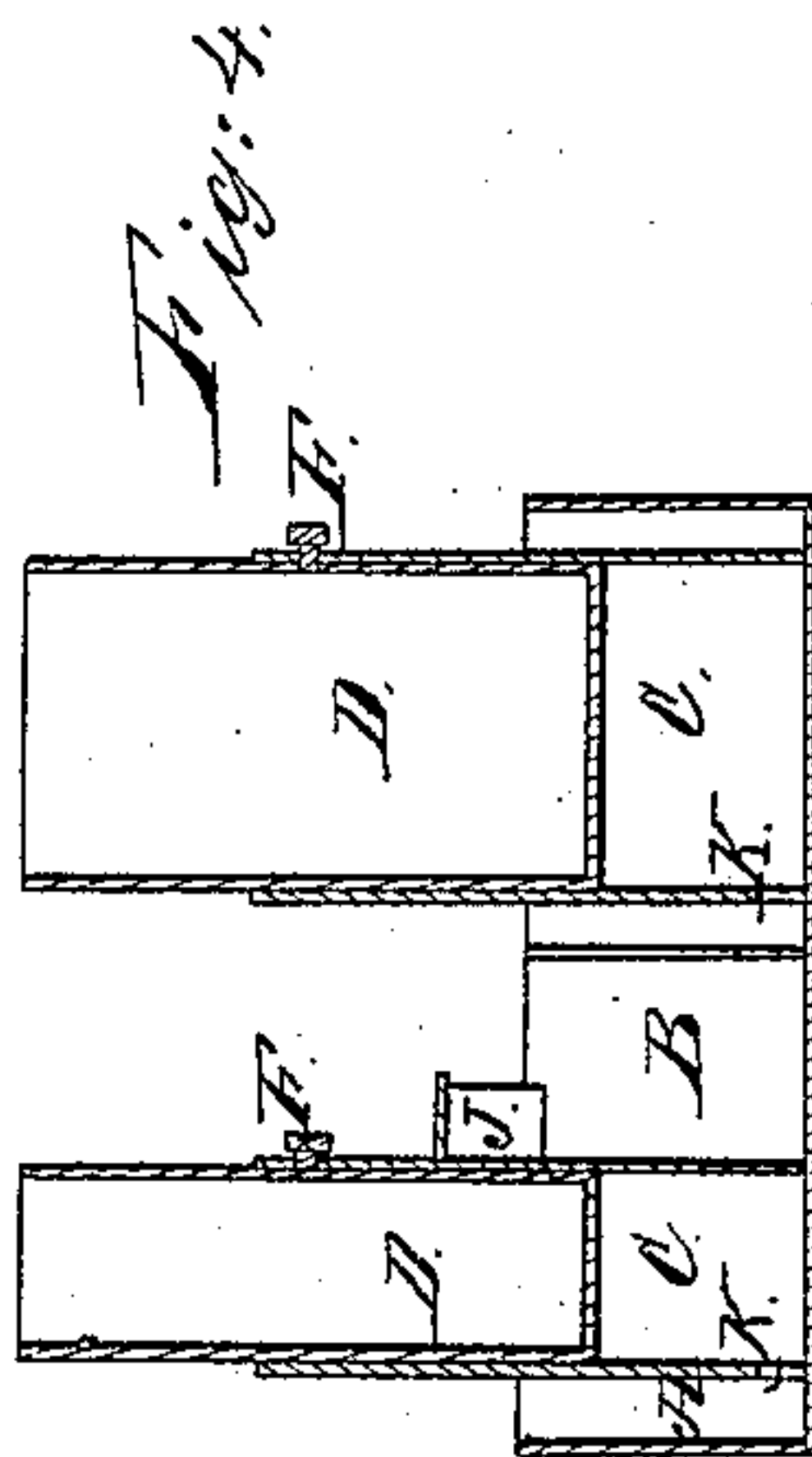
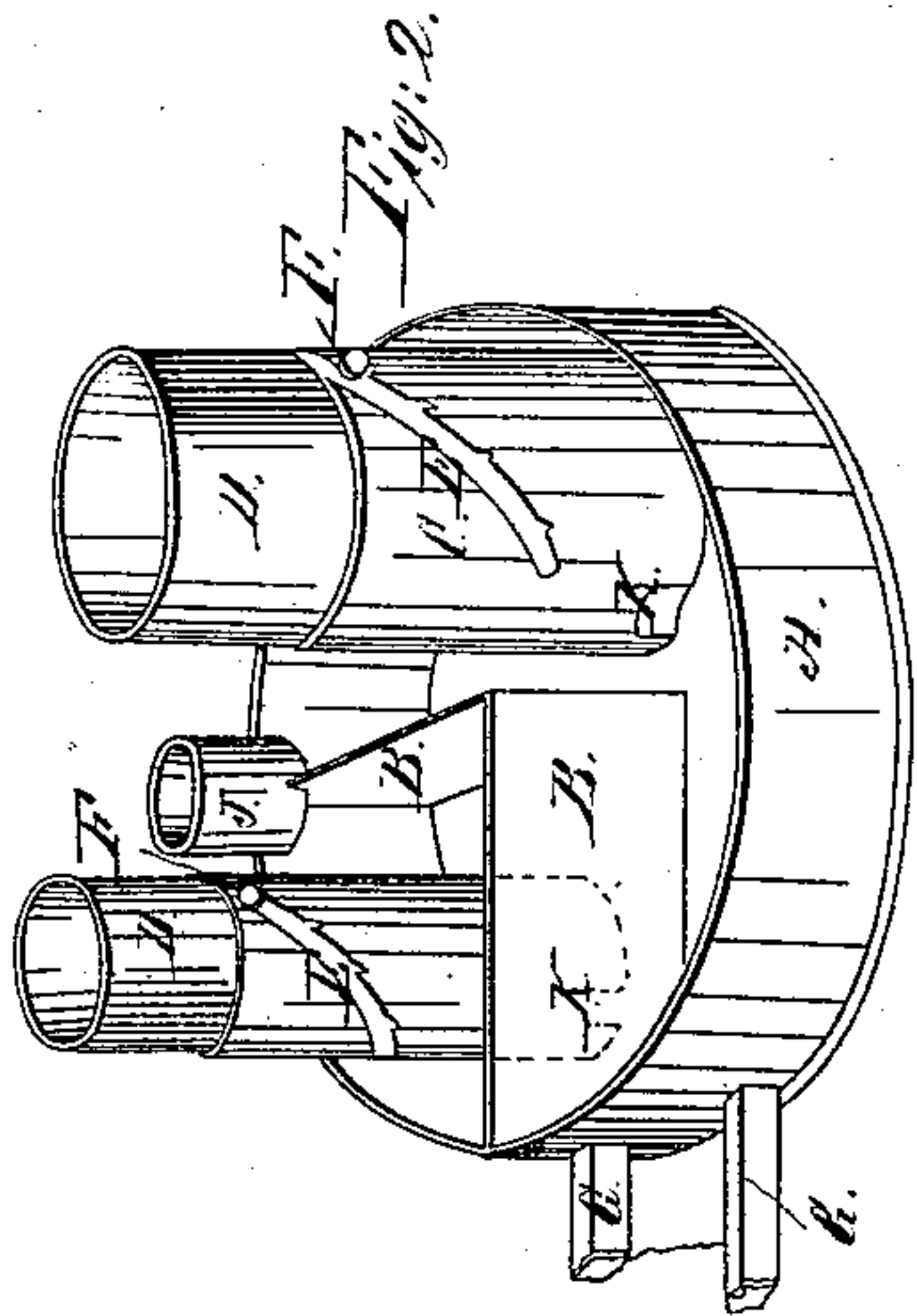


B. W. Franklin,
Vulcanizing Lamp.

Nº 37,575.

Patented Feb. 3, 1863.



Witnesses:

James W. Bushnell
Milton W. Gray

Inventor:

Burwell W. Green Man

UNITED STATES PATENT OFFICE.

BRADLEY W. FRANKLIN, OF NEW YORK, ASSIGNOR TO THE AMERICAN
HARD RUBBER COMPANY, OF FLUSHING, N. Y.

IMPROVED VULCANIZING-LAMP.

Specification forming part of Letters Patent No. 37,575, dated February 3, 1863.

To all whom it may concern:

Be it known that I, BRADLEY W. FRANKLIN, of the city, county, and State of New York, assignor to the AMERICAN HARD RUBBER COMPANY, of Flushing, county of Queens, and State of New York, have invented a new, useful, and improved lamp for generating heat for the vulcanization of india-rubber and other gums for dental and other purposes.

It is generally known that lamps of various devices, and also gas, have been used for this purpose, but all these require watching, and the wicks in the lamps or the gas from the burners have to be changed from time to time in order to keep the heat within a given range, subjecting the operator to great inconvenience and uncertain results.

The nature and object of my invention consist in constructing a lamp with two or more adjustable compartments varying in capacity, each connected with separate gauze-wire wick-burners, graduated so as to hold the proper quantity of alcohol to evolve the required heat to produce the best quality of "vulcanite," thus obviating the necessity of thermometer or steam-gage and rendering the explosion of the boilers impossible.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Similar letters of reference indicate like parts in all the drawings.

Figure 1 is a perspective view of lamp; Fig. 2, perspective view with cover removed; Fig. 3, plan view; Fig. 4, section on line *x*.

A is the case or reservoir; B, partition; C, cylinder; D, inverted cups or tubes; E, slots; F, pin; G, ducts; H, wicks; I, feed; K, openings into cylinders.

Operation: The reservoir of my improved lamp is made round or in any other convenient shape, a little larger than is required to hold the quantity of alcohol requisite for vulcanizing india-rubber or other vulcanizable gums. These gums are placed in the ordinary manner into any vulcanizing-boiler of determined size and thickness and containing a uniform quantity of water. The inside of the

lamp is divided into two or more compartments, varying in capacity, with a cylinder inserted in each, and firmly secured to the bottom with openings at the lower ends to allow the alcohol to flow into them on a line with the surrounding fluid. Into these cylinders, which constitutes a part of the reservoirs, are placed inverted cylinders, cups, or tubes, with tight bottoms, the object of which is to lessen the capacity of the reservoirs at will, the operation of which will more fully appear in the following description and references to the different parts. Before filling the reservoir A the cups or inverted tubes D are depressed into the cylinders C C and secured at any desired point by means of the pins F F in the slot E or any other convenient device, thus diminishing the capacity of the reservoirs to any desired extent. After the adjustment of the inverted tubes D the reservoirs are filled by means of the feed tube J, over the partition B. The gauze-wire wicks insure equal and uniform flow and combustion—are connected by means of ducts G G, leading from each compartment of the reservoirs to the wick tubes. These wicks, when lighted and placed under a vulcanizing-boiler to which this lamp has been adjusted, will evolve the required heat for perfect vulcanization. The wick connected with the smallest reservoir or compartment will burn till the steam in the boiler is up to the proper vulcanizing degree of heat, and expire. The wick connected with the largest reservoir will continue to burn till vulcanization is completed, and then it will expire, obviating the necessity of thermometer, steam-gage, or the attention of the operator.

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

The construction of a lamp with two or more adjustable compartments connected with gauze-wire wicks that shall, when graduated, evolve the proper degree of heat to vulcanize india-rubber and other vulcanizable gums without the use of thermometer, steam-gages, or other tests, constructed substantially as above described, and for the purposes set forth.

BRADLEY W. FRANKLIN.

Witnesses:

JAMES W. BUSHNELL,
MILTON W. GRAY.