

No. 614,047.

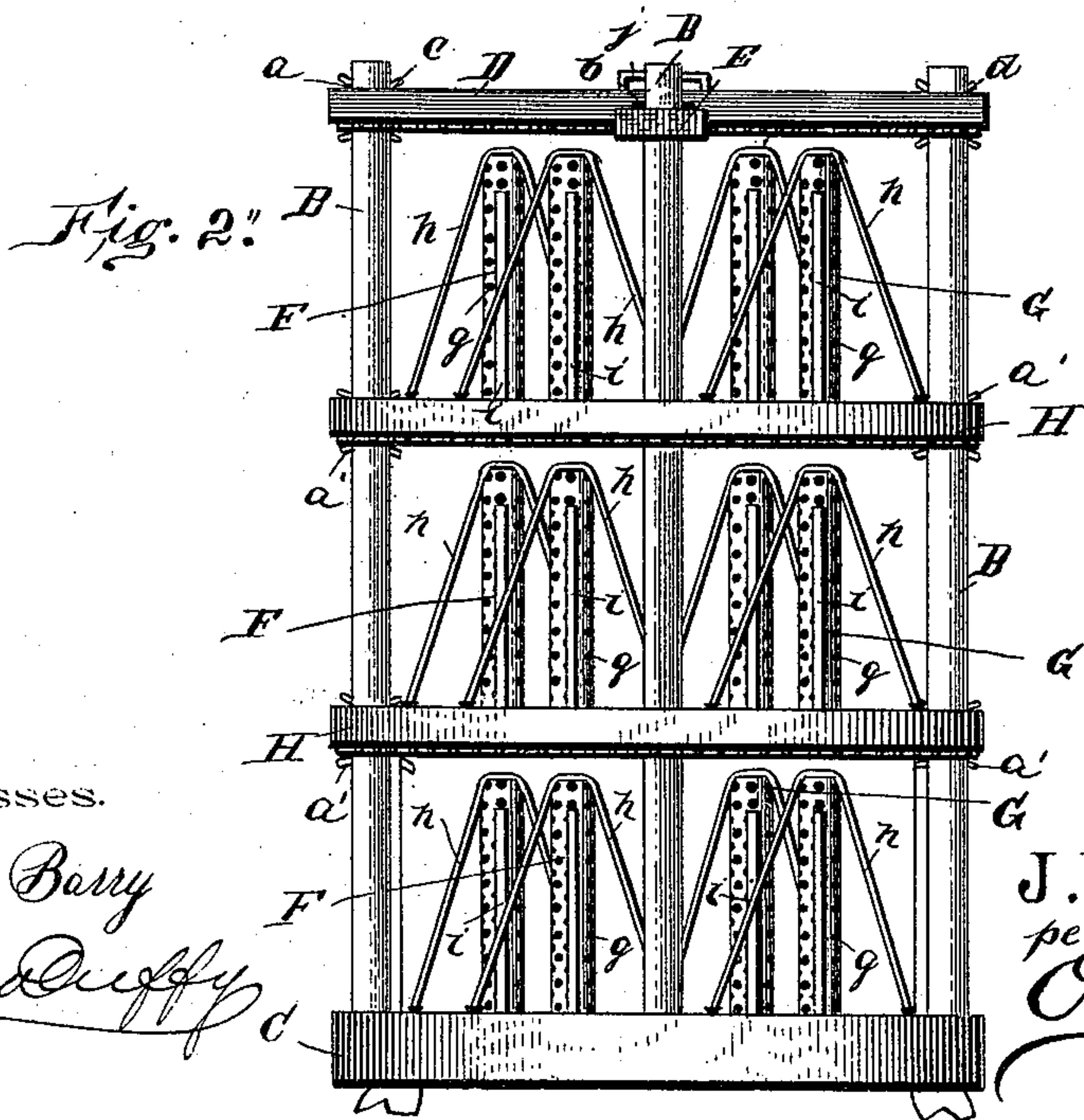
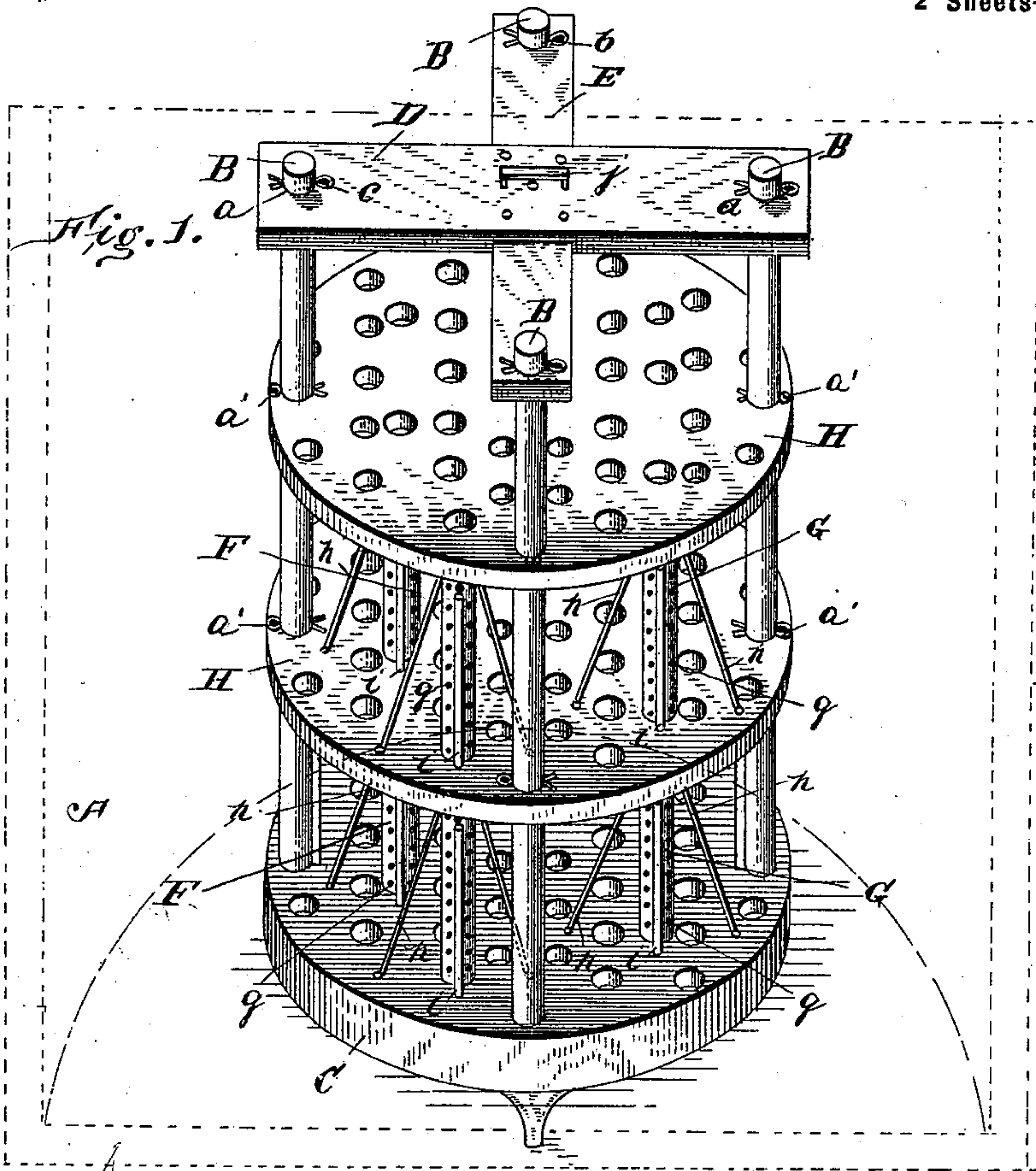
Patented Nov. 8, 1898.

J. W. WIGNER.
APPARATUS FOR DYEING HATS.

(Application filed Mar. 30, 1898.)

(No Model.)

2 Sheets—Sheet I.



Witnesses.

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2 Sheets—Sheet 2.

Fig. 3.

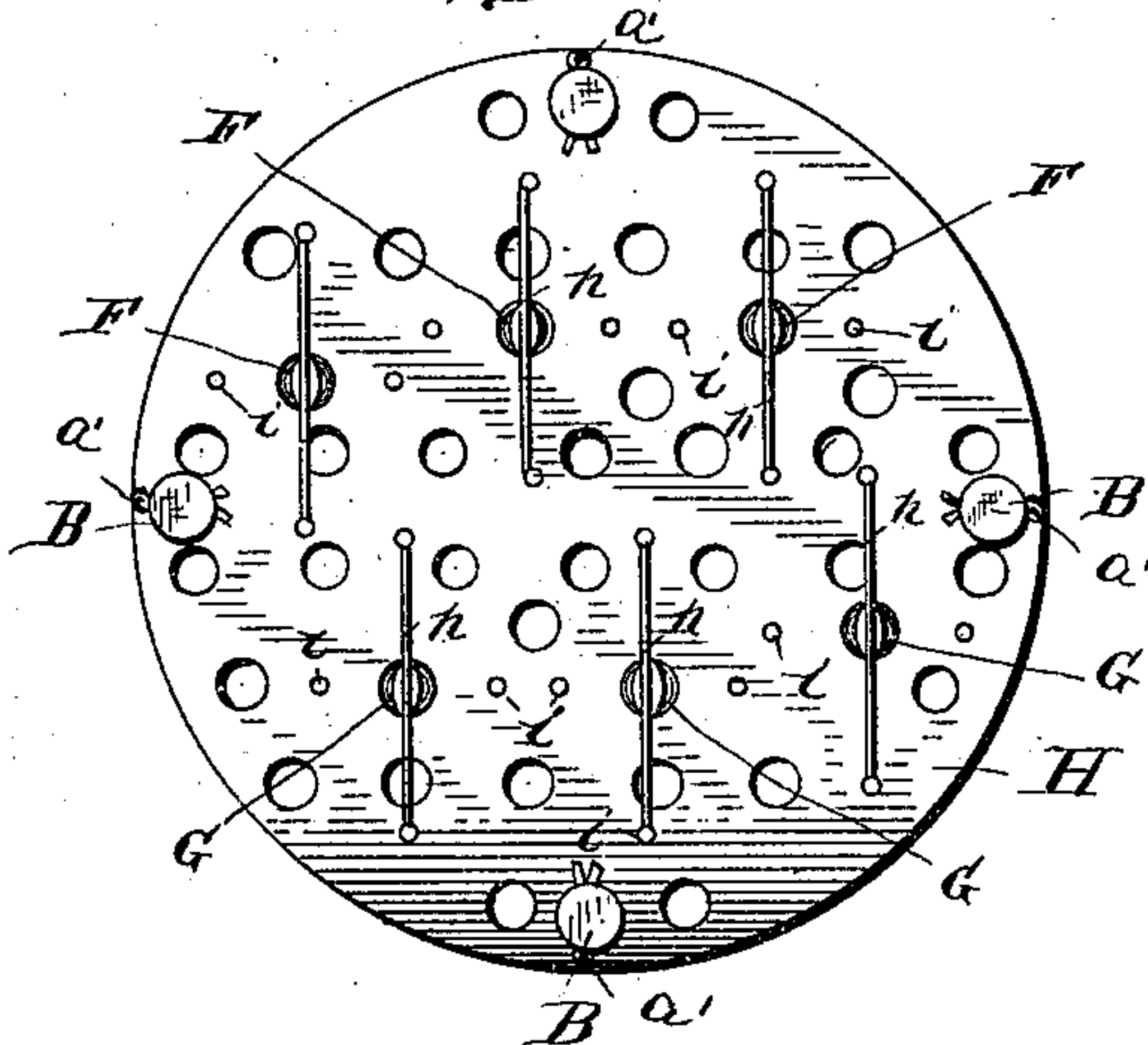


Fig. 6.

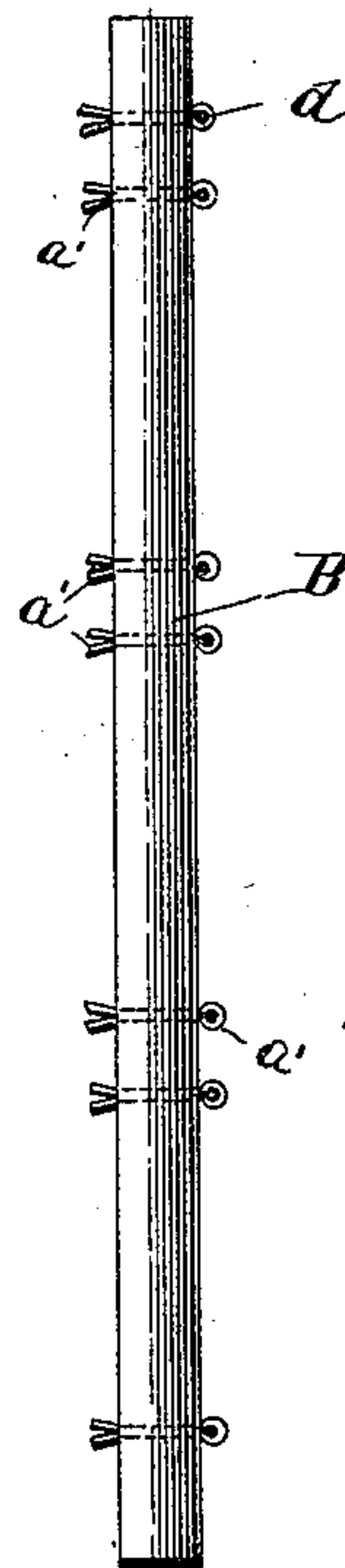


Fig. 5.

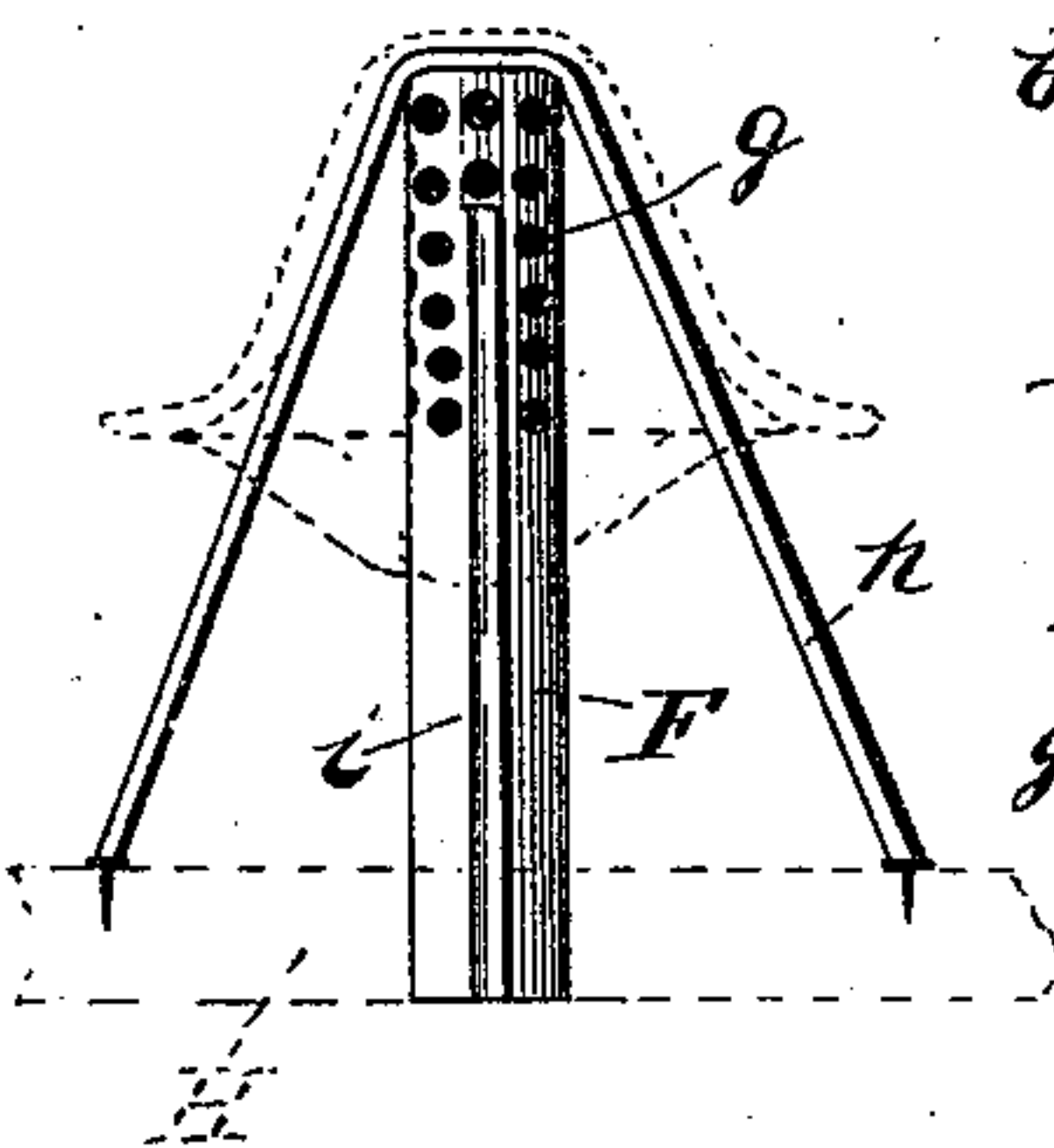
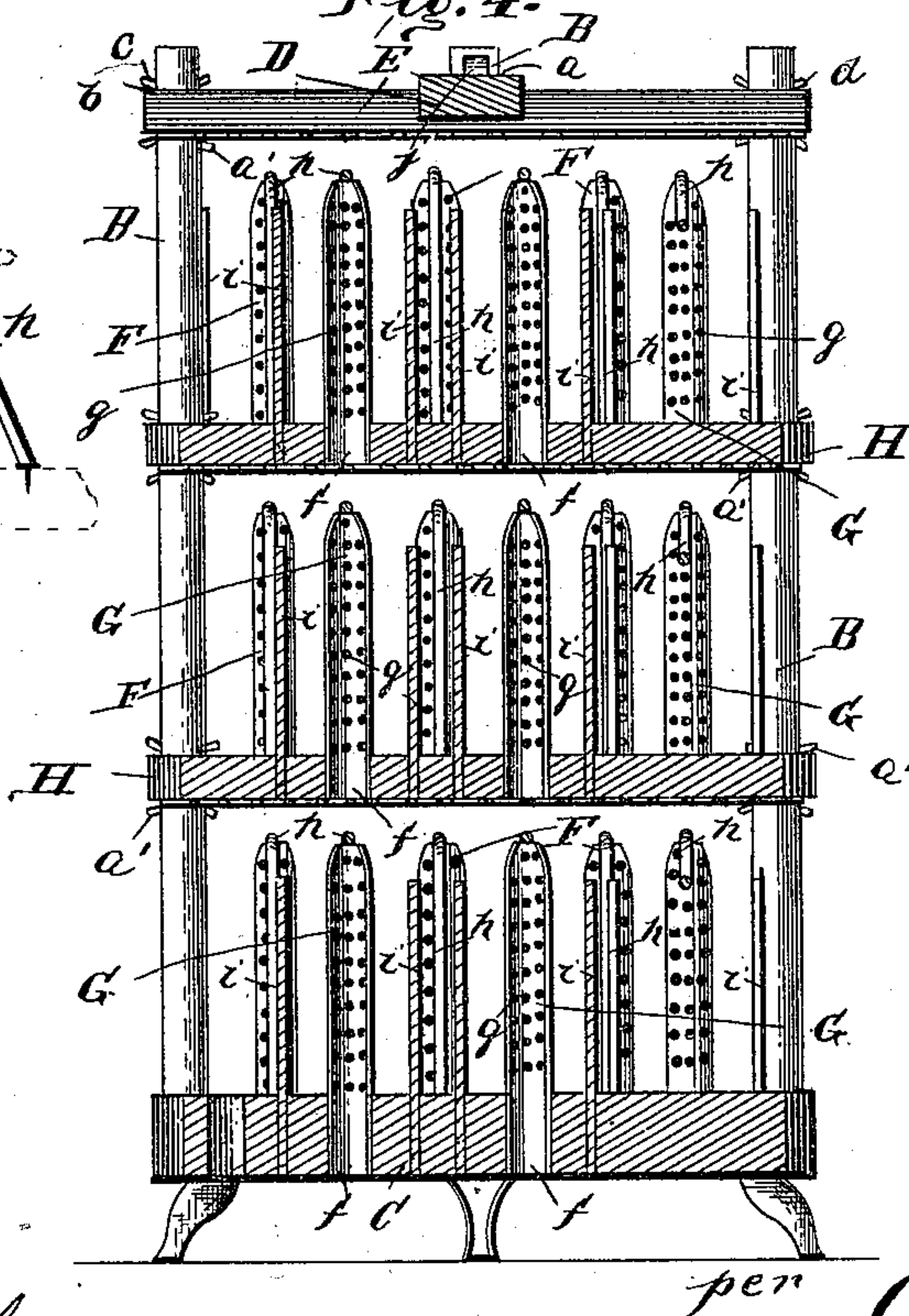


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOSEPH W. WIGNER, OF WABASH, INDIANA.

APPARATUS FOR DYEING HATS.

SPECIFICATION forming part of Letters Patent No. 614,047, dated November 8, 1898.

Application filed March 30, 1898. Serial No. 675,813. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. WIGNER, of Wabash, in the county of Wabash and State of Indiana, have invented certain new and useful Improvements in Devices for Coloring Hats; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention has relation to the dyeing of hats, bonnets, or the like, and has for its object to uniformly dye the article without spotting or injuring the article to be dyed.

Heretofore hats, bonnets, or the like have been placed in tanks or kettles, and in placing them in such tanks or kettles they come in contact with each other, and thus do not receive the dye uniformly, and it is with great difficulty articles are thoroughly and satisfactorily dyed. Furthermore, when these articles are going through the process of dyeing they have to be stirred up by a stick or other instrument, and by so doing they are injured or torn and the dyeing fluid does not reach every portion of the hat equally. To avoid these objections and to rapidly, uniformly, and efficiently dye the articles referred to are further objects of my invention.

To these ends my invention consists in forming an apparatus by which each hat or other like article to be dyed is held separately and independently by itself and in such manner that it will not fold, crease, or collapse or come in contact with its next adjacent article and that it will receive the dyeing fluid uniformly to every fiber or thread, and that after being dyed the set of articles may be removed without handling and also go through the process of being washed without removal from the stand or support upon which they were dyed; and it further consists in several details of construction, as will be hereinafter more fully described, and pointed out in the claims.

In the drawings, Figure 1 shows a perspective view of an apparatus with three sets of standards. Fig. 2 is a side elevation of the

same; Fig. 3, a top plan view; Fig. 4, a vertical transverse section; Fig. 5, an enlarged detail view of one of the standards detached with wire spreader and stay, and Fig. 6 one of the posts with holes and pins.

The same letters will indicate like parts throughout all the figures.

A is a tank or vessel holding the fluid for dyeing. (Shown in dotted outline.) These tanks or vessels may be of any shape, round or square, and of any dimensions.

B is a frame, consisting in this case of four posts secured in a foundation or bottom, as at C. These posts B are rigidly secured in said bottom. The top or clamp of the frame is composed of two pieces D E laid across each other and securely jointed in the center. These pieces D E have holes *ab* in their ends, through which posts B pass. The cross pieces or clamps D E are secured to the posts by means of pins *c d*.

Between the bottom C and the clamp D E, I locate a series of disks H H, which are perforated with holes sufficiently large to permit a free circulation of the fluid through them. In a certain number of these holes I locate standards F G, of any required number, according to demands and circumstances. These standards F G are hollow, as at *ff*, Fig. 4, and are perforated, as at *g*. The object of making the standards hollow and perforated is so that the fluid may have free circulation and access to all parts of the article to be dyed, and by this means a more uniform shower or spray is given to the whole article. The hollow standard may only be perforated near its top or upper end, if so desired.

In the disk, on both sides of each standard and at a suitable distance, I attach a strip of wire, which is fastened to the top of the standard, the whole forming a frame which serves to retain the article on the standard in a spread condition, preventing it from collapsing or its sides coming together. They also act as braces and hold the standard in a vertical position, preventing them from toppling over. I also place wires *ii* a suitable distance from the spreaders and at about right angles thereto. These wires *ii* are to prevent the outer edges of the hat or bonnet from spreading

too far, so that they will not touch the next adjacent article, and so on with all the standards in use. These disks H H are removable from the frame, together with the article thereon, and may be placed in the washer just as they are taken from the dye tank or kettle, and being interchangeable other disks may be placed in the dye-tank while the others are in the washer. The disks H H are held in position on the posts by means of pins *a a* in the posts B or by other adjustable means, as preferred. The nest of disks may be lifted out of the tank by a handle *j* or other suitable device.

When the apparatus is in the dye or wash tank, it may be supported by legs or stops, so that the fluid will have free access through the perforations at the bottom.

Just over the standards and secured to the bottom of the disk above the standard I locate a wire netting or screen of about one-inch mesh to prevent the hat or article on the standard from touching the bottom of the disk. This also prevents the hat's removal off the standard upward and at the same time prevents it from touching the body of the disk, so that from all sides the article on the standard is secure from touching any substance that would spot it.

It is evident that modifications may be made of the various parts of my apparatus without departing from the spirit of my invention. I therefore desire not to be confined to the

exact form shown and described, but consider myself entitled to all such changes.

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

1. The combination in a dyeing apparatus of perforated disk, hollow perforated standards provided with braces which are also adapted to serve as spreaders as set forth.

2. In an apparatus for dyeing hats or the like the combination of the removable disk having the standards on its upper surface provided with spreaders, and on its under surface a wire screen to prevent the article on the standard from touching the surface of the disk as set forth.

3. The combination in an apparatus for dyeing hats, bonnets or the like of the frame, the removable disks perforated as shown, the standard provided with spreaders passing over said standards and secured to said disks, the retaining-wires, and the wire screen, the said spreaders, retainers and screen preventing the hat from touching the adjacent hats or the surface of the disk, all arranged for joint operation as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH W. WIGNER.

Witnesses:

JOHN H. DICHER,
FANNIE MALLOCH.