

G. H. HARDMAN.
COATING DEVICE.

APPLICATION FILED JUNE 14, 1909.

940,593.

Patented Nov. 16, 1909.

2 SHEETS—SHEET 1.

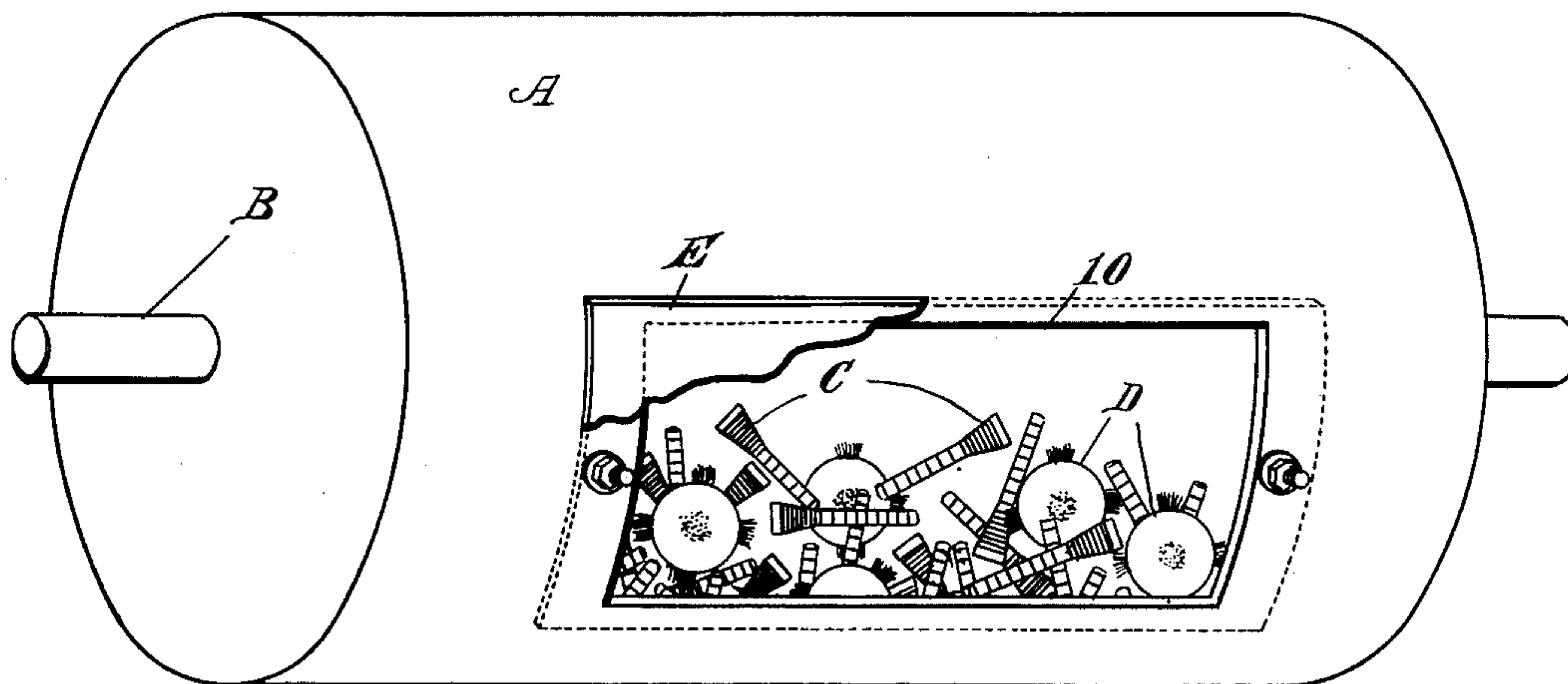


Fig. 1.

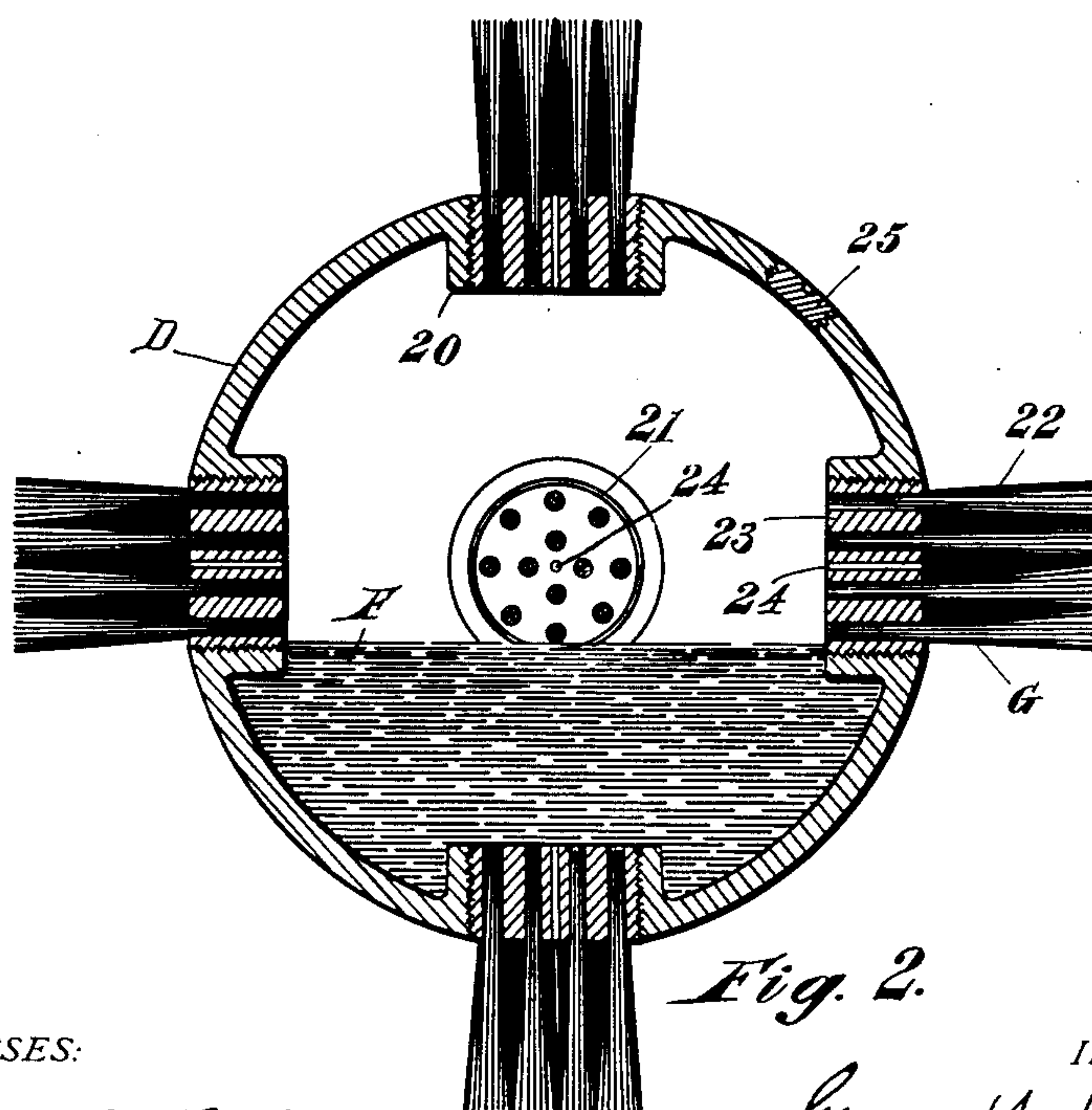


Fig. 2.

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2 SHEETS—SHEET 2.

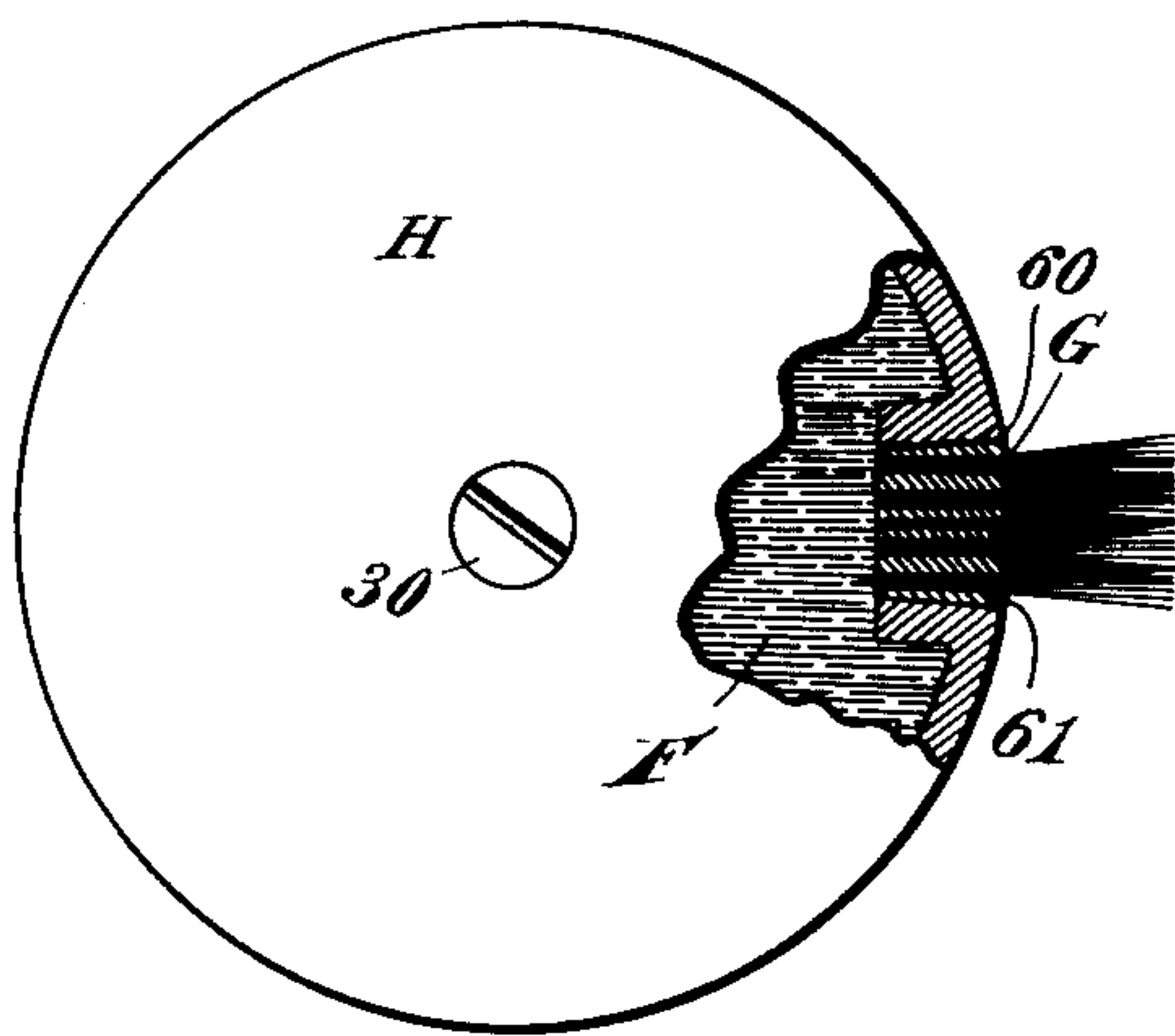


Fig. 3.

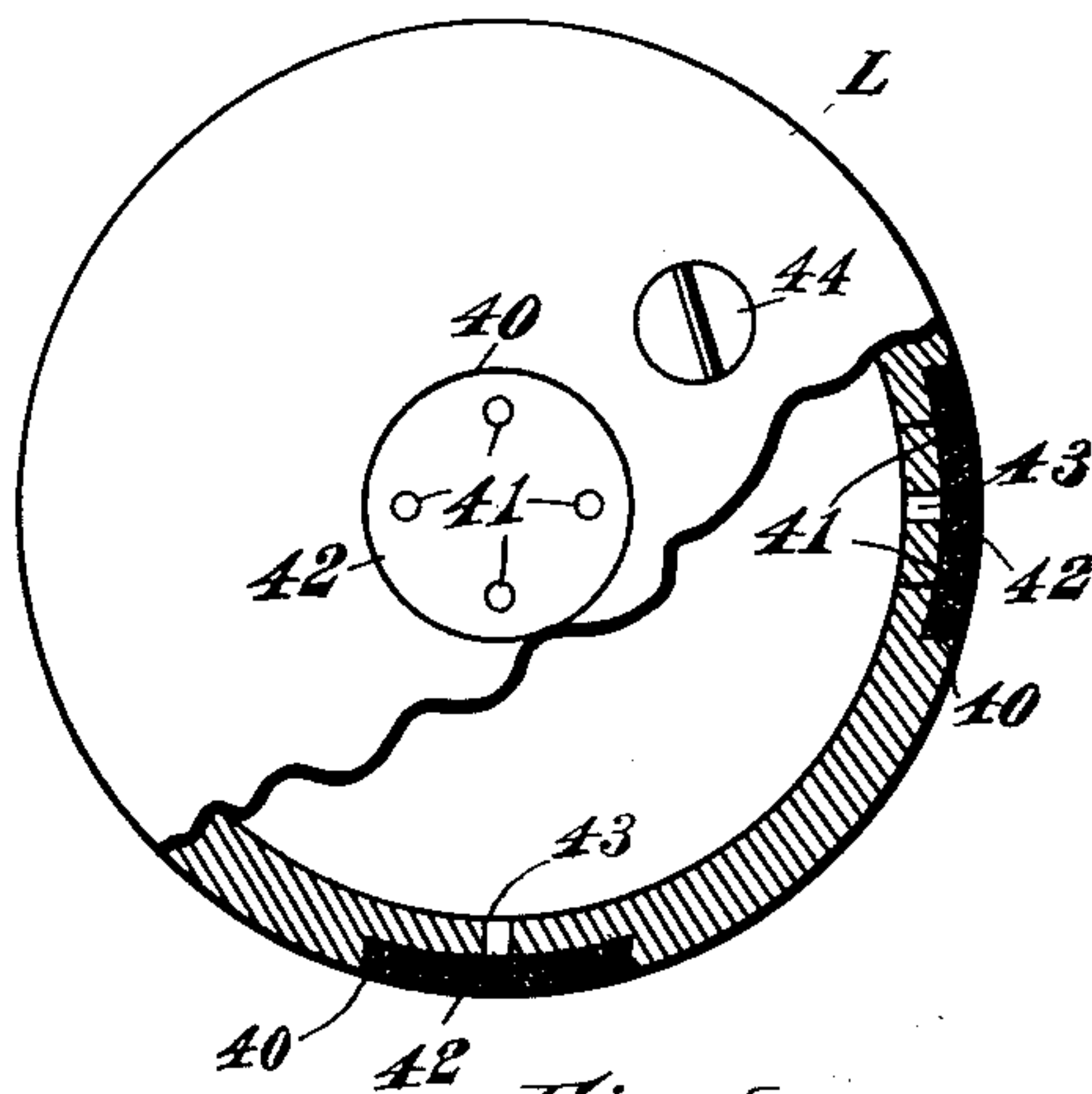


Fig. 5.

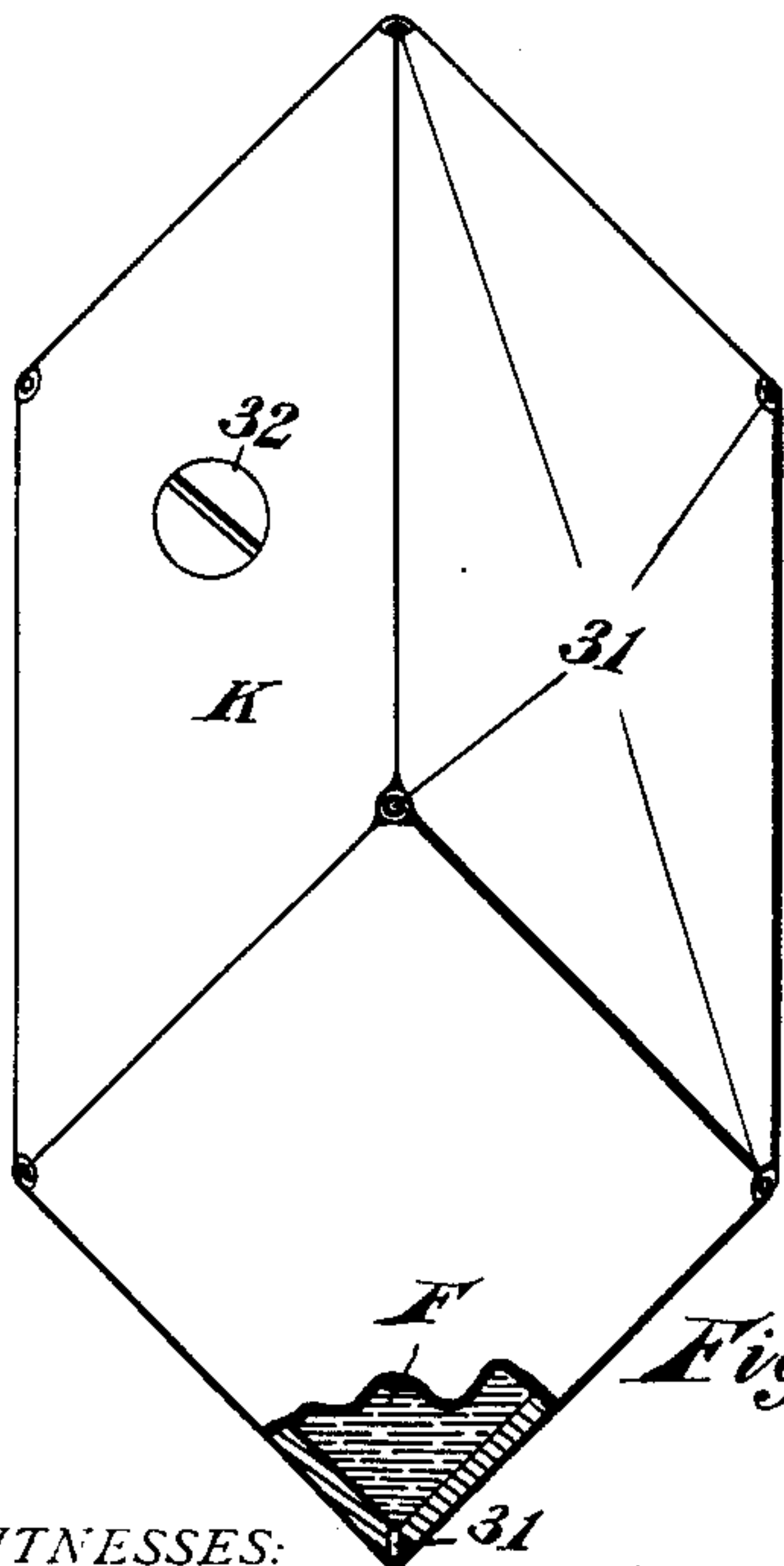


Fig. 4.

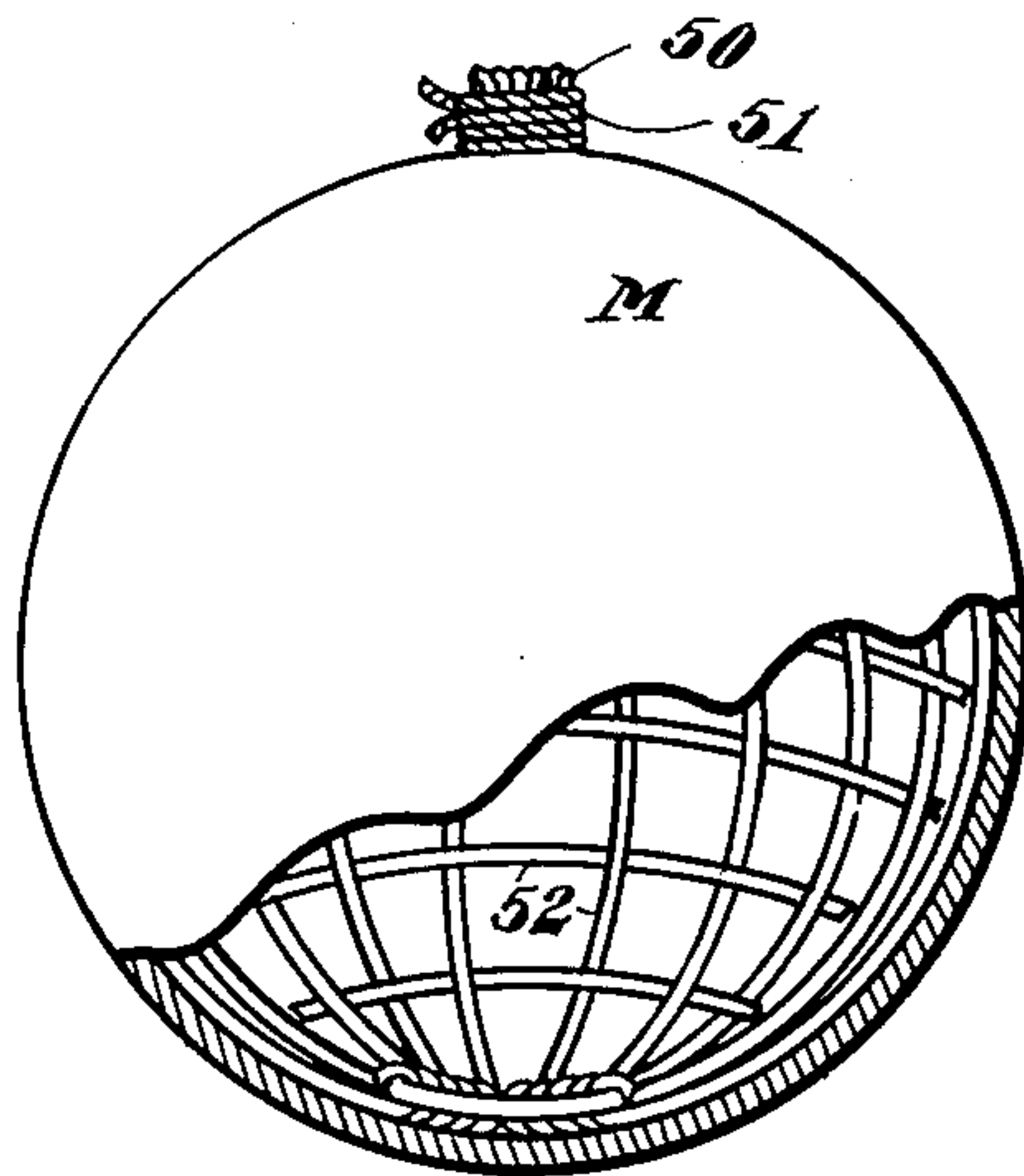


Fig. 6.

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UNITED STATES PATENT OFFICE.

GEORGE H. HARDMAN, OF NEW BEDFORD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF
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COATING DEVICE.

940,593.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed June 14, 1909. Serial No. 502,066.

To all whom it may concern:

Be it known that I, GEORGE H. HARDMAN, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Coating Devices, of which the following is a specification.

My invention relates to devices for varnishing, painting, staining or otherwise coating a large number of articles with rapidity.

It has special reference to the painting, staining or varnishing of bobbins, spools and other articles of wood. It may however be used to coat articles of any kind with any suitable coating.

The purpose of my invention is to deliver shellac or other coating material gradually and in such a way that it will not run, but will be spread evenly in a thin sheet over the articles to be coated. I accomplish this by the means described herein, and in the accompanying drawings.

In the drawings, Figure 1 represents a revoluble barrel of any usual type filled with bobbins and with my distributing balls. Fig. 2 is a section of my preferred form of distributing ball. Fig. 3 shows a ball with a single brush. Fig. 4 shows a distributing vessel of oblong form which may be used as a distributor. Fig. 5 shows a ball in which are openings which are covered with felt. Fig. 6 shows a wire frame covered with felt or canvas, which can be used in some cases as a distributor.

A represents the usual form of revoluble barrel carried by the shaft B through which it can be revolved.

C represents the bobbins or other articles which are to be shellacked.

10 represents an opening in barrel A through which bobbins C and distributors D are passed into barrel A. This opening 10 is provided with a suitable door E which is put back in place after the distributors, and the articles to be coated are placed inside.

The distributor shown in Fig. 2 is a ball which may be of copper, iron, wood, glass or other suitable material, and should be smooth on the outside. It is provided with a number of interior bosses 20, through each of which passes an opening or hole 21 which is preferably threaded on the inside. Into each opening 21, I insert a special form of

brush G which comprises tufts of bristles 22 which are held by a backing 23 of wood, metal or other suitable material. This backing 23 as shown in Fig. 2 may be screw-threaded on the outside to fit the interior threads of hole 21. Through the center of backing 23, I bore a hole 24 which, when the brush G is in place, connects the inside of the distributor or ball D with the outside.

The distributing ball D is filled with shellac F or other suitable coating liquid either by withdrawing one of the brushes G and pouring the liquid through the hole 21 or by removing filling plug 25 from the filling hole in which it is inserted. The brush G or plug 25 is then screwed back into place and one or more filled distributing balls are placed in barrel A as described. It is evident that if barrel A is revolved or rocked, the distributing balls D are rolled around and mixed up with bobbins C and that as they mix, a small quantity of shellac F runs out through the holes 24 and saturates the bristles 22 of the brushes G. Thereby, we have the effect of flexible brushes saturated with shellac passing over, around and reaching every part of outside of the bobbins or other articles to be coated.

Fig. 3 shows a distributing ball H which carries a single brush G. Ball H has a single boss and through this boss is a hole into which is driven the backing 61 of brush G. It also shows a cap 30 which may be unscrewed in order to fill the ball. Such distributors with a single brush are useful in some cases.

Instead of a ball with brushes projecting therefrom, I may use as a distributor, a vessel of any shape, as a box K of metal, wood, fiber or any other suitable material. Through the walls or preferably through the corners of box K are bored small holes 31. It also has a filling plug 32. The effect of these small holes 31 is that only a small quantity of the shellac F or other liquid is delivered at a time and the articles are thereby coated in the same way that they are coated by the brush distributor, only not as effectively.

Another form of distributor is shown in Fig. 5, in which the ball L is provided with a plurality of recesses 40 in which are set by means of tacks 41 or by any other suitable means, disks of felt 42 of such texture that the shellac can pass through it slowly. A small opening 43 connects the interior of the

ball L with the back of each felt pad 42. It will be readily seen that the liquid shellac will pass out through the holes 43 and will saturate the felt pads 42 which in turn will distribute the shellac through and upon the articles to be coated. 44 is a filling plug.

Still another form of distributor is shown in Fig. 6. This is a bag of felt, canvas, or of other fibrous or porous material stretched over a wire framework 52. It can be filled with shellac or other coating material and then tied up at the neck 50 by means of a cord 51. This bag should be made of material of such texture that the shellac will not pass through it too rapidly, as is likely to occur on account of the very large surface exposed. This acts in the same way as the other distributors.

What I claim as my invention and desire to cover by Letters Patent, is:

1. The process of coating articles with shellac, stain or like material, which consists in revolving or rocking a revoluble barrel in which are said articles together with one or more hollow distributors which are filled with said shellac, stain or like material and are provided with passages from the interior whereby said shellac, stain or like material is gradually distributed upon said articles.

2. In a coating device, the combination of a revoluble barrel with one or more hollow distributors therein, each of which distribu-

ters comprises a hollow shell with one or more small passages from the interior to the exterior thereof whereby the coating material is gradually distributed.

3. In a coating device, the combination of a revoluble barrel, with one or more hollow distributors therein, each of which distributors comprises a hollow receptacle for the coating material, in which are passages to the outside, each of which passages is obstructed by fibrous material whereby the coating material is thinly distributed, and said coating material as described.

4. In a coating device, the combination of a revoluble barrel, with one or more hollow containers therein through each of which are a plurality of minute passages from the interior to the exterior.

5. In a coating device, the combination of a revoluble barrel, with one or more spherical hollow containers each of which comprises one or more brushes attached to the outside and a passage communicating from the bristles of each brush to the interior of the container.

In testimony whereof I, hereto affix my signature in presence of two witnesses.

GEORGE H. HARDMAN.

Witnesses:

GARDNER W. PEARSON,
FISHER H. PEARSON.