No. 687,014 Patented Nov. 19, 1901.

I. W. GILES.

MACHINE FOR COATING EYELETS.

(Application filed Sept. 4, 1901.)

(No Model.)

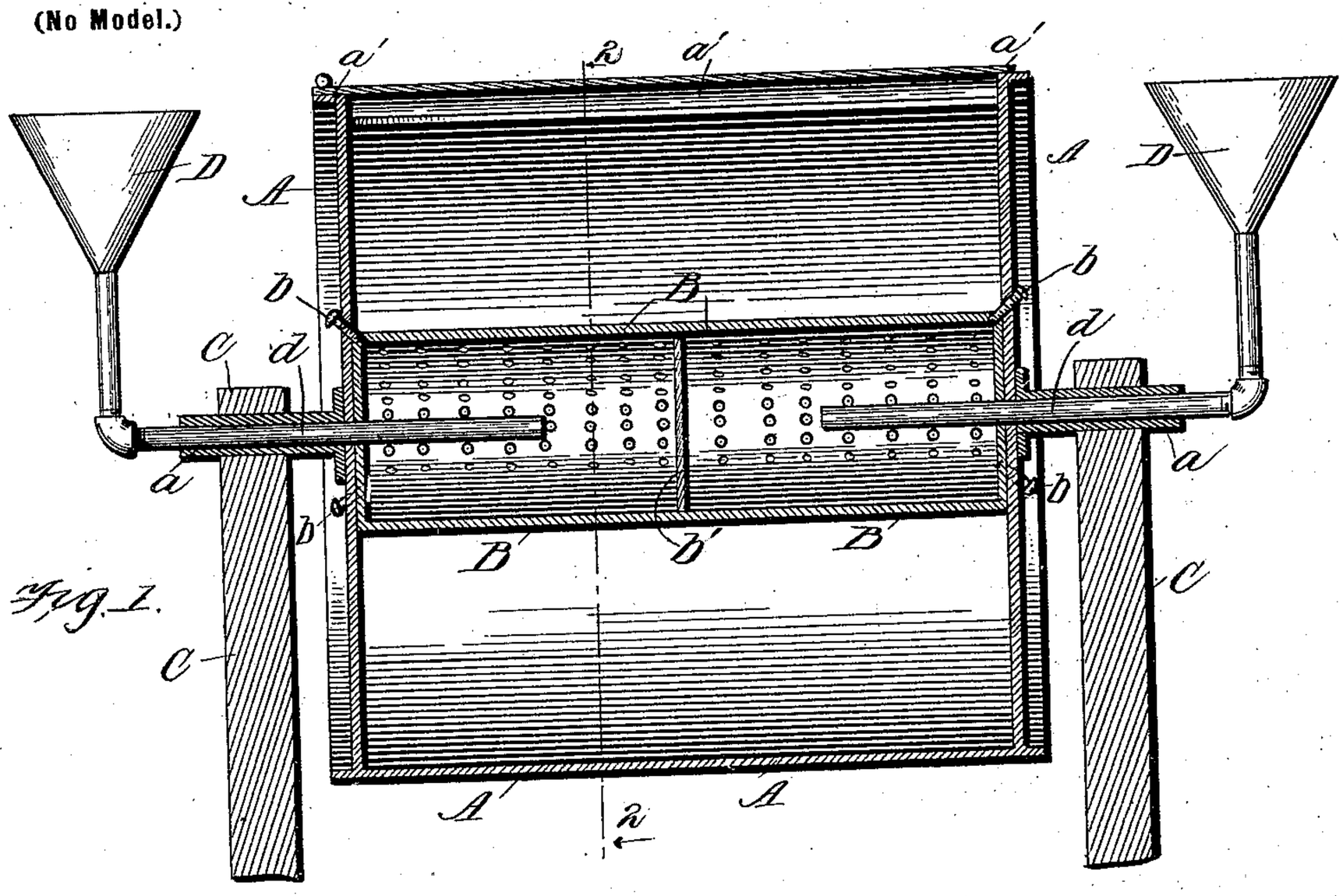

Fig. 1.

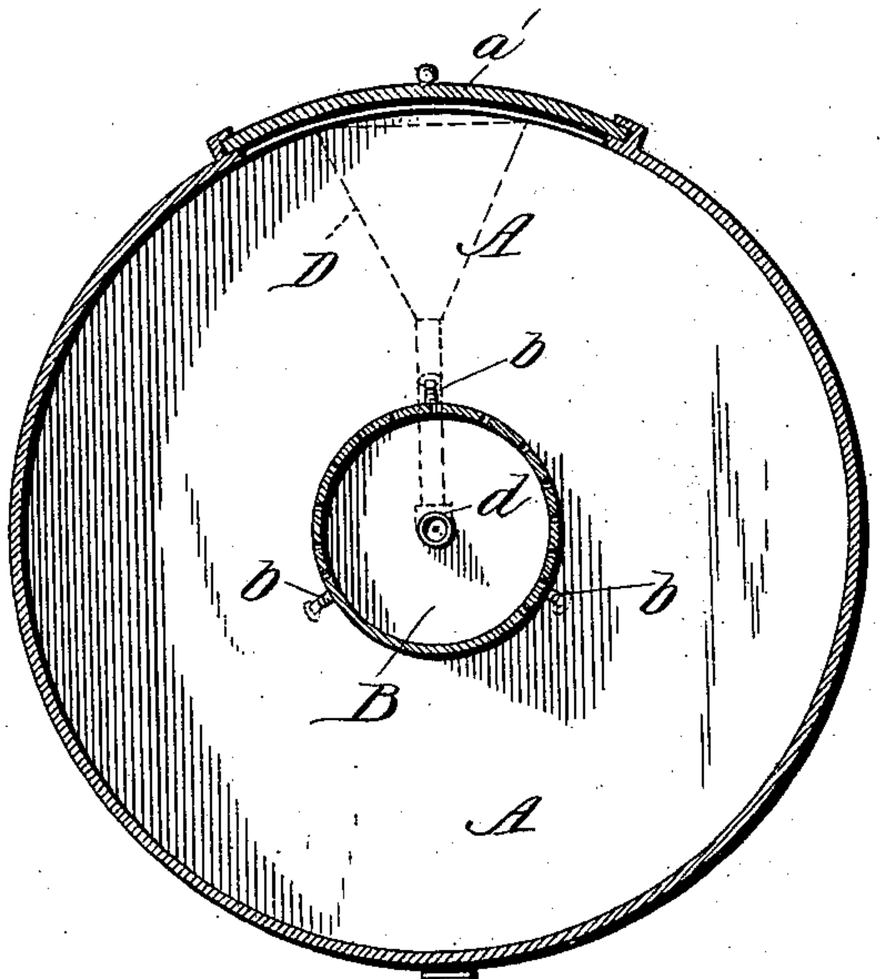

Fig. 2.

WITNESSES:

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MACHINE FOR COATING EYELETS.

SPECIFICATION forming part of Letters Patent No. 687,014, dated November 19, 1901.

Application filed September 4, 1901. Serial No. 74,288. (No model.)

To all whom it may concern:

Be it known that I, ISAAC W. GILES, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have made certain new and useful Improvements in Machines for Coating Eyelets and other Articles, of which the following is a specification.

In coating eyelets and other small articles with paint, japan, varnish, or other adhesive substances by means of tumbling mills or machines the said eyelets or articles have been placed in a revolving barrel or drum along with a certain quantity of the liquid, and the drum being revolved the liquid is spread over the surface of the articles as they roll with the drum. In this operation the articles—say eyelets—will be coated and their tubes or openings or cavities filled with the japan or other liquid. The coat thus applied is ordinarily too thick, so that it comes off when dry, and the filling of the tubes, &c., is objectionable.

I have devised an improved tumbling-machine by which eyelets or other small articles may be quickly and neatly coated without filling the tubes or cavities, as in the ordinary method.

The construction, arrangement, and operation of the machine are as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a central vertical longitudinal section of the machine. Fig. 2 is a vertical cross-section on the line 2 2 of Fig. 1.

A large revoluble drum A, having a horizontal cylindrical body and parallel vertical heads, is supported by and revolves upon hollow trunnions *a*, which are journaled in posts or brackets C. Within this drum is arranged concentrically a small cylinder B, whose heads abut the heads of the drum A. The said cylinder is secured removably in place by means of screws *b*, passing diagonally through the heads of the drum A, as shown. The latter is provided with an opening covered by a slidable door *a'*, which extends the entire length of the drum. The opening is of greater width than the cylinder B, and consequently the latter may be inserted or removed through it. The cylinder B has a central transverse partition or diaphragm *b'*, whereby it is divided into two equal compartments. The paint, japan, or other liquid employed for coating articles is received into these compartments from tubes *d*, that connect with funnels D. The latter are arranged in vertical position, and the tubes *d* pass through the hollow trunnions *a* and the heads of the drum and cylinder, as shown. This construction and arrangement permit the funnels to be readily set in place or detached, as the case or occasion require. One-third of the circumference of the cylinder B is imperforate, and the remaining two-thirds is provided with numerous small perforations, as shown. The imperforate portion is arranged farthest from the opening of the drum A, as shown best in Fig. 2, whereby when the drum is set with the door *a'* uppermost the liquid in the cylinder B will be arrested or prevented from discharging.

In using the machine a due quantity of the liquid to be used for coating is delivered through the funnels D into the cylinder B, the latter being so placed that the imperforate portion is downward, as shown in the drawings. The eyelets or other articles to be coated being placed in the drum and the door *a'* closed, the drum is revolved manually or by any suitable means, in which operation the liquid will escape through the openings of the cylinder B, and the articles will be duly coated without filling the tubes or cavities of the same. The drum is then adjusted with the door side up, so that drip or escape of japan or other coating liquid from the cylinder B is prevented. It will be understood that the same quantity of liquid is placed in each funnel D, and therefore that each compartment of the cylinder B receives the same quantity as the other, also that the liquid escapes slowly through the holes in the cylinder and that the eyelets or other articles contained in the drum are coated thinly and evenly. It will be observed, further, that owing to the arrangement of the perforations of the cylinder B the discharge of liquid therefrom is intermittent.

What I claim is—

1. The machine for the purpose specified, a revoluble drum having a door-covered open-

ing extending its entire length, a removable perforated cylinder arranged concentrically in said drum and made of less diameter than said opening, and means for securing the cylinder detachably in place, its heads being adjacent to the heads of the drum, substantially as shown and described.

2. The machine for coating articles, comprising a revoluble drum having a side opening, and a cylinder arranged concentrically within the drum and rotating therewith, and having an entire longitudinal section of its periphery imperforate, and the remainder provided with perforations, such imperforate portion being farthest from the opening, substantially as shown and described and for the purpose specified.

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