H. BRADT.

Machine for Varnishing Broom-Handles.

No. 203,583. Patented May 14, 1878.

Fig. 1.

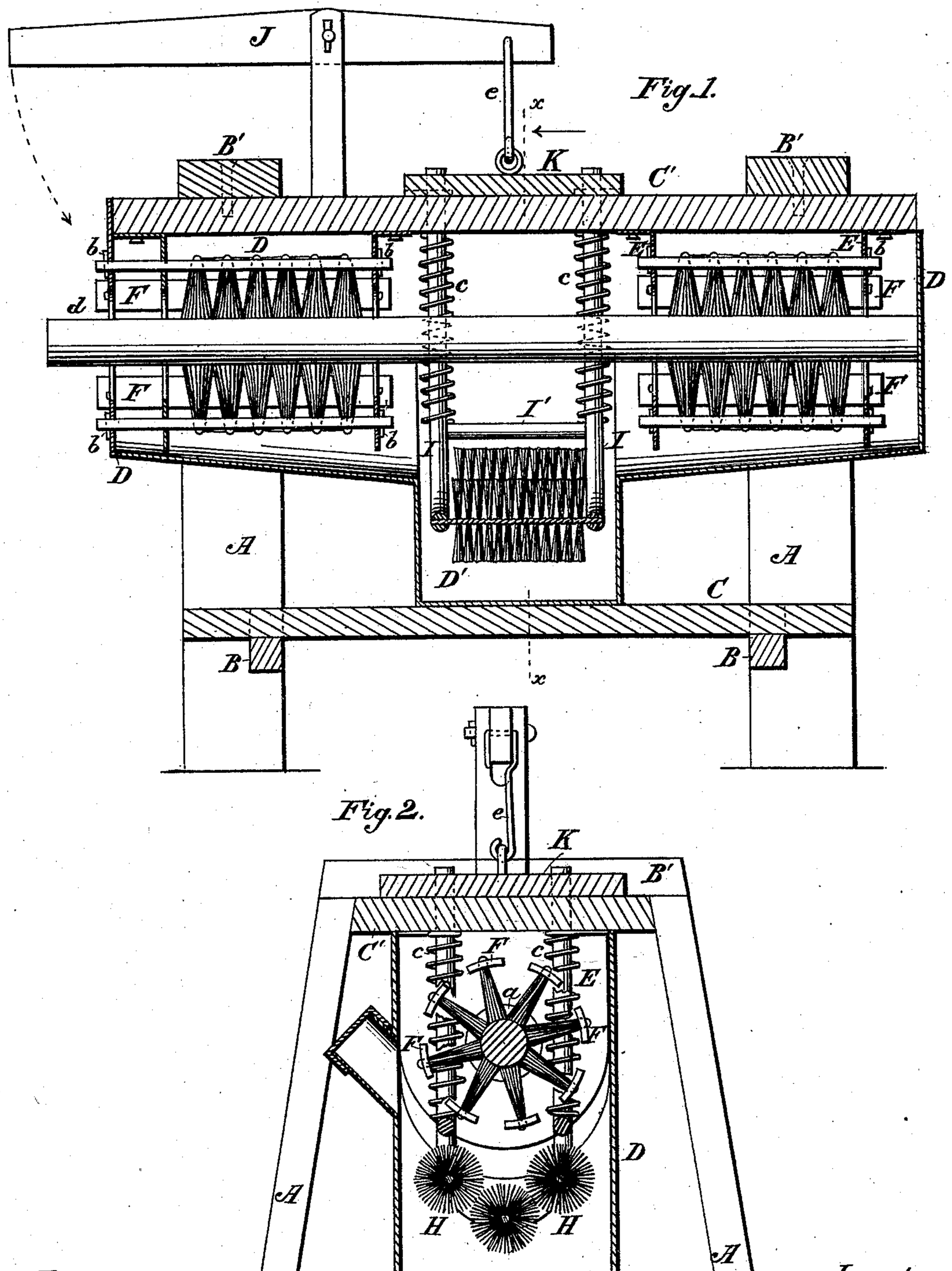

Fig. 2.

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UNITED STATES PATENT OFFICE.

HENRY BRADT, OF SCHENECTADY, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO NICHOLAS VAN SLYCK, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR VARNISHING BROOM-HANDLES.

Specification forming part of Letters Patent No. **203,583,** dated May 14, 1878; application filed April 3, 1878.

To all whom it may concern:

Be it known that I, HENRY BRADT, of Schenectady, in the county of Schenectady and State of New York, have invented certain new and useful Improvements in Machines for Painting and Varnishing Broom-Handles; and I do hereby declare that the following is a full, clear, and exact description thereof, 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 letters of reference marked thereon, which form a part of this specification.

The object of this invention is to reduce the cost of varnishing broom-handles and other analogous articles by the substitution for the common hand-brush and varnish-pot usually employed for that purpose of a machine which accomplishes the same result in much less time and in an excellent manner; and the invention consists in the construction and connection of a pair of stationary concentric brushes with a vertically-moving brush and a suitable outer case, provided with a receptacle for the varnish, all combined and arranged as will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a vertical longitudinal section through the machine, showing it with a broom-handle inserted within the concentric brushes, as when in use. Fig. 2 is a transverse vertical section on the line *x x* of Fig. 1.

The frame of the machine consists of two pairs of inclined posts, A A, connected near their lower ends by the girts B, and at the top by the plates B′. The girts B support a bed or floor, C, which connects the pairs of posts to each other, and upon which rests the case D, covering the brushes, and forming a receptacle for the varnish.

The cap C′ extends from end to end of the machine, and is strongly secured to the transverse plates B′ by suitable bolts. Depending from the cap C′, and secured thereto, are the metal plates E, which support the brushes F. These plates E are pierced by a central orifice, *a*, through which the article to be varnished passes. Surrounding this orifice at a proper distance is a series of mortises, which receive the ends of the brushes F, and in which they are secured by pins *b* passed through holes in the ends of the brushes. The bristles in these brushes all project inward toward a common center, so that the handle G or other similar cylindrical article, when thrust through the central opening in the plates E, shall come in contact with their inner ends upon nearly its whole surface, so that a slight rotation of the handle will cause a coat of varnish to be evenly spread over its surface.

In order to supply the varnish to the article and prevent waste, the removable case D is provided, the lower part of which, D′, forms a receptacle for the varnish, and a support for the whole case by resting upon the bed C.

It will be observed that the whole case is so formed as to return any excess of varnish to the receptacle.

The length of the case D should be about that of the article to be varnished, so that but one insertion of the article into the machine will be required to give it a full coat, an orifice, *d*, being formed in one end of the case, through which the article is inserted and withdrawn; but, if desired, an opening may be made in both ends, and the broom-handles or other articles passed entirely through the machine.

In order to apply the varnish directly to the article, the brushes H are attached to a lifting-frame, composed of the U-shaped metal rods I and ties I′, the rods I being surrounded by the springs *c*, which bear down upon them and keep the brushes H immersed in the varnish-receptacle, except when they are lifted therefrom by the lever J, to which they are connected by the rod *e*, attached at one end to the lever and at the other to the plate K, in which the upper ends of the rods I are adjustably secured after passing through suitable guiding-orifices in the cap C′.

The lever J may, if desired, be so arranged as to be operated by the foot, and thus leave both hands of the workman at liberty to insert and remove the articles to be varnished.

The method of operating the machine is as follows: The receptacle D′ being supplied with varnish, the workman inserts a stick through the orifice *d* in one end of the case, pushing it in until it strikes the opposite end of the case.

The brushes H are then raised until they come in contact with the article, which is then partially rotated and withdrawn, the concentric brushes F removing any excess of the varnish applied by the brushes H.

It will be evident that this apparatus may also be employed for the purpose of applying a coat of paint to the article by simply supplying the receptacle with a properly-prepared pigment instead of the varnish.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent, the following:

1. In a machine for varnishing broom-sticks, the combination of the concentric brushes with the vertically-adjustable brushes H and varnish-receptacle, as specified.

2. The concentric brushes formed by inserting the brushes F into plates E, as described, in combination with the cap C and case D′, as and for the purpose set forth.

3. The U-shaped rods I, attached to plate K and lever J, in combination with the springs *c*, brushes H, and receptacle D′, all constructed and arranged as and for the purpose specified.

4. In a varnishing-machine, the combination of the frame and bed C, constructed as described, case D, with receptacle D′, concentric brushes F, brushes H, rods I, plate K, connection *e*, and bar J, all arranged and operating in the manner described.

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

HENRY BRADT.

Witnesses:

EWELL A. DICK,

FRED. E. TASKER.