

UNITED STATES PATENT OFFICE.

CHARLES M. RHODES, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO
M. M. RHODES & SONS, OF SAME PLACE.

IMPROVEMENT IN JAPANNING BUTTONS, &c.

Specification forming part of Letters Patent No. 174,741, dated March 14, 1876; application filed
January 15, 1876.

To all whom it may concern:

Be it known that I, CHARLES M. RHODES, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Japanning Buttons, &c., of which the following is a specification:

Figure 1 is a vertical longitudinal section of the apparatus used in my improved process, taken through the line *xx*, Fig. 2. Fig. 2 is a cross-section of the same, taken through the line *yy*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improvement in the process of japanning buttons and other small articles, so as to avoid the necessity of stringing the buttons, placing them in a frame, or separating said buttons or articles from each other with a steel spatula, and thus lessen the labor and expense of japanning.

The invention consists in the process of drying buttons and other small articles in a rotating perforated box over a fire, after the paint has been applied to them, and before they are placed in the oven, as hereinafter fully described.

I will first describe the apparatus used for carrying my improved process into practical effect, and will then describe my improvement in the process of japanning.

A is a cast-iron box or casing, set in brick-work, and provided with a closely-fitting arched sheet-iron cover, B. In the forward lower part of the casing A is formed the fire-chamber C, and directly below it the ash-chamber D, which chambers are provided with doors *c'* *d'*. In the lower rear part of the casing A is a fire-back, E, made of solid brick-work. F is a box made of sheet-iron, and open upon one side, which open side is closed with a cover, G, also made of sheet-iron, and which may be a sliding cover or may be hinged as desired. The box F and cover G are perforated with numerous small holes, to allow

the gases to escape. H is a shaft, which passes longitudinally through the center of the box F G, and is rigidly secured to the center of the ends of said box. The ends of the shaft H revolve in notches in the upper edges of the ends of the casing A, where they are kept in place by the ends of the cover B. To one end of the shaft H is attached a pulley to receive a band for rotating the said box F G.

In carrying my improvement into practical operation the japan or paint is applied to the buttons or other small articles in a rattler, in the ordinary way. When they are fully covered with the paint they are removed from the rattler and placed in the box F G, which is then placed in the casing A, and the cover B is put on. The box F G and its contents are then rotated over the fire previously made in the fire-chamber C, the products of combustion and the gases from the box F G escaping through the pipe I. When the japan or paint has become so dry that the articles will not stick to each other, they are removed from the box F G, placed in pans, and put into a hot oven, in the usual way.

By this improvement the labor of stringing the buttons, placing them in frames, and separating with a steel spatula those that stick together is wholly avoided, which materially lessens the cost of the operation.

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

The improvement in the art of japanning small articles, which consists in rotating the painted articles over a fire, and in contact with the products of the combustion thereof, whereby the articles are separated, and their coating is dried, preparatory to baking them, substantially as herein shown and described.

CHARLES M. RHODES.

Witnesses:

W. E. FULLER,
M. E. FRANCIS.