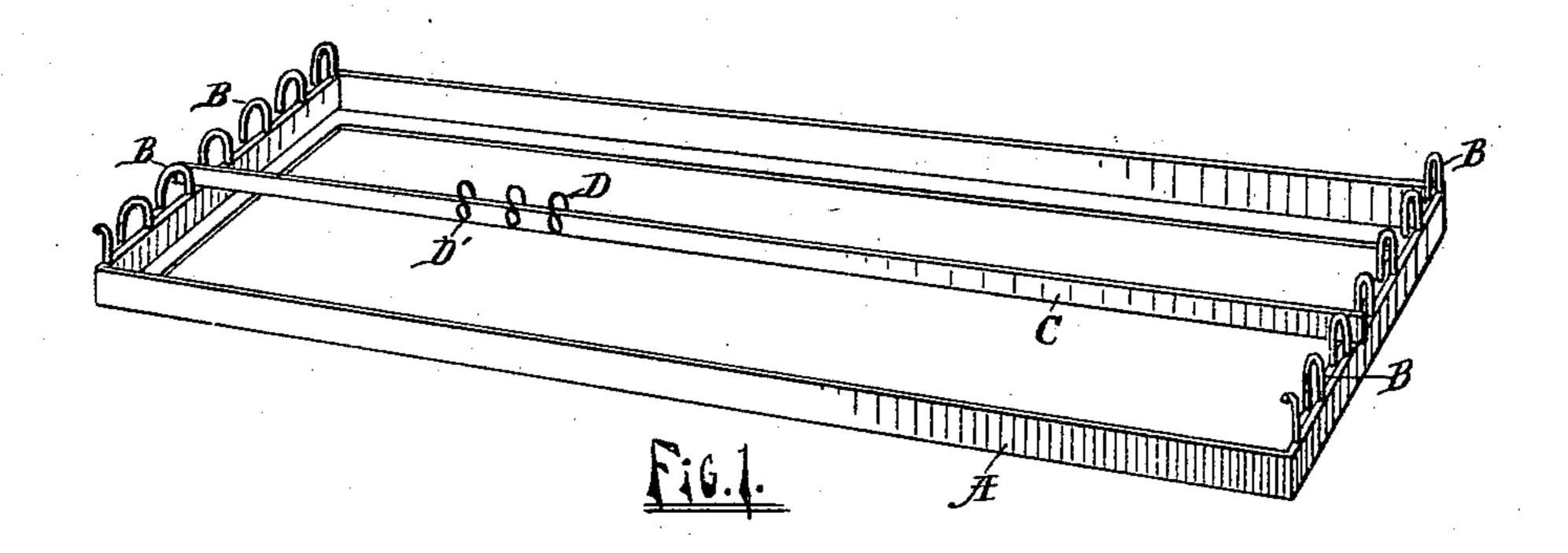
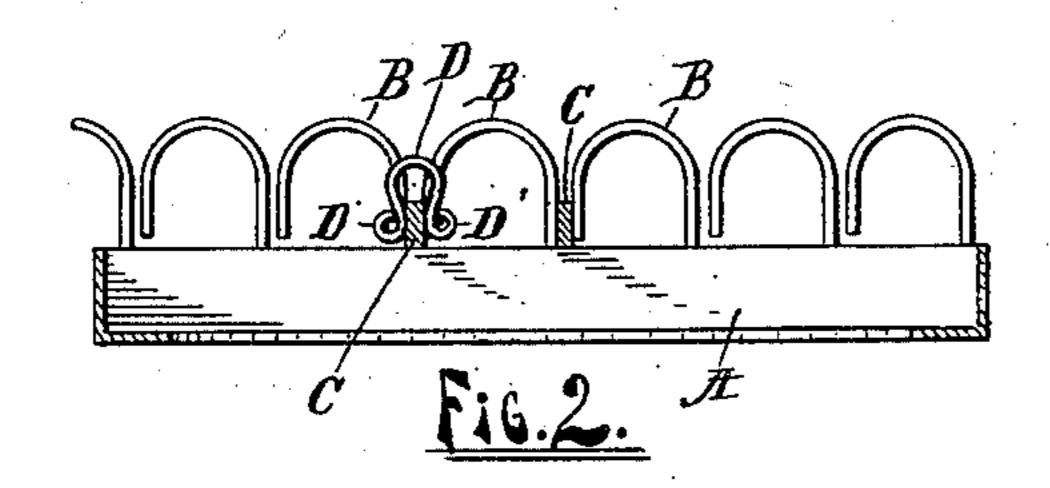
A. E. WAGGONER.

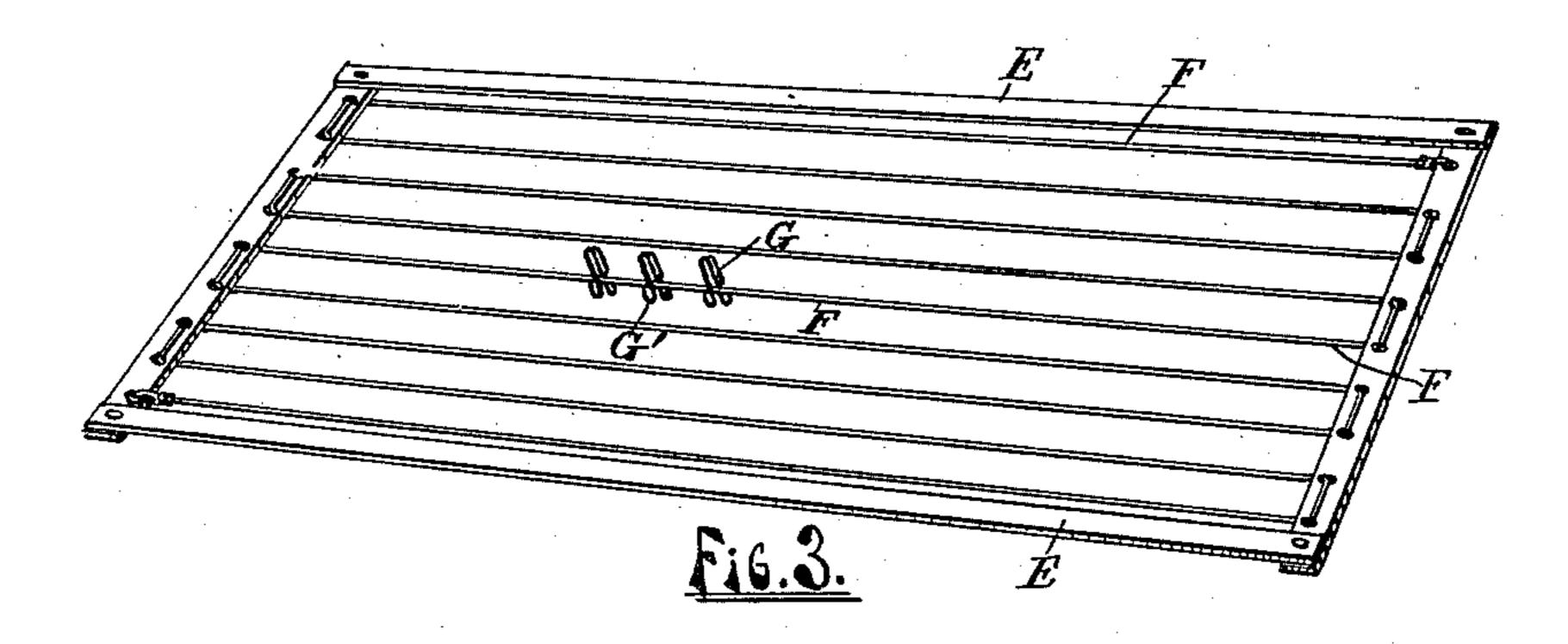
PROCESS OF JAPANNING HOOKS AND EYES.

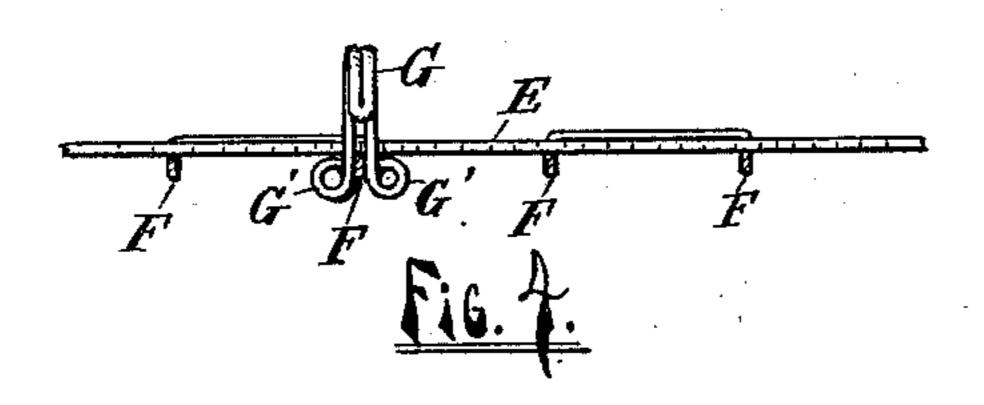
(Application filed Aug. 3, 1900.)

(No Model.)









Witnesses Palmer A. Jones. Josephywwin Albert E. Waggoner Luther V. Moullon Attorney

United States Patent Office.

ALBERT E. WAGGONER, OF GRAND RAPIDS, MICHIGAN.

PROCESS OF JAPANNING HOOKS AND EYES.

SPECIFICATION forming part of Letters Patent No. 671,504, dated April 9, 1901.

Application filed August 3, 1900. Serial No. 25,747. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. WAGGONER, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Processes of Enameling Hooks and Eyes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in processes for enameling hooks and eyes; and its object is to provide means whereby the same may be evenly coated throughout, except a very small portion so located as not to be observable, and to avoid markings or spots of uneven thickness of enamel due to contact of the hooks or eyes with each other.

My improved process consists, essentially, in attaching the hooks and eyes to suitable holding bars or wires, as shown in the accompanying drawings, by inserting said bar or wire between the thread-loops of the hooks and eyes, dipping the same, together with the bars or wires, in a suitable solution, and, finally, drying the coating of enamel, whereby the flaw in the enamel due to contact of the hook or eye with the support is so located as to be practically hidden from view and the hooks and eyes otherwise smoothly coated with enamel, as hereinafter more fully set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective of a frame and bars for holding the eyes; Fig. 2, an enlarged detail of the same in transverse section; Fig. 3, a perspective of a frame and wires for holding hooks, and Fig. 4 a detail of the same in transverse section.

Like letters refer to like parts in all of the figures.

A represents a frame of any suitable construction having at its ends a series of springclips B, consisting of flexible wires bent in semicircular form near the middle and having one end attached to the frame and the other end near to the attached end of the adjacent wire and adapted to yieldingly engage the sides of the flat bars C placed between said wires and detachably held thereby.

D represents the eyes to be enameled, which

eyes are placed astride the said flat bars at intervals, with the respective thread-loops D' D' at each side of the bar and having their 55 adjacent sides in contact with the respective sides of the bar and sprung apart thereby. The spring of the eye will hold the same securely in place on the bar during the balance of the process, and thus enable the coating of 60 enamel to flow evenly over every part of the eye except the very small parts in contact with the bar, which parts are so located as not to be noticeable.

E represents another style of frame used 65 for the hooks, consisting of a rectangular frame E of four suitable bars riveted together at their ends. The end bars are perforated at intervals and a series of wires F stretched at intervals across the frame. These wires 70 are flattened at their opposite sides in planes vertical to the plane of the frame, and the hooks are placed astride these flattened wires in like manner as the eyes are placed on the bars C, and the same results follow during 75 the process. I find it necessary to provide these different bars or wires because of the difference in the space between the threadloops in the hooks and in the eyes, the latter being much wider apart, and thus capable of 80 embracing a bar of considerable size, and in the hook the space is very narrow—in fact, closed, except as the hook is sprung apart and thus requires the thin flat wire to pass between the same.

What I claim, and desire to secure by Letters Patent, is—

The process of enameling hooks and eyes consisting of separately mounting the same on supports inserted between the thread-loops 90 of the hooks and eyes; dipping the same in a suitable enameling liquid, and drying the coating thus formed whereby the flaw in the enamel due to contact of the hooks and eyes with the support is practically hidden from 95 view, and the hooks and eyes otherwise smoothly coated with enamel.

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

ALBERT E. WAGGONER.

Witnesses:

PALMER A. JONES, LUTHER V. MOULTON.