

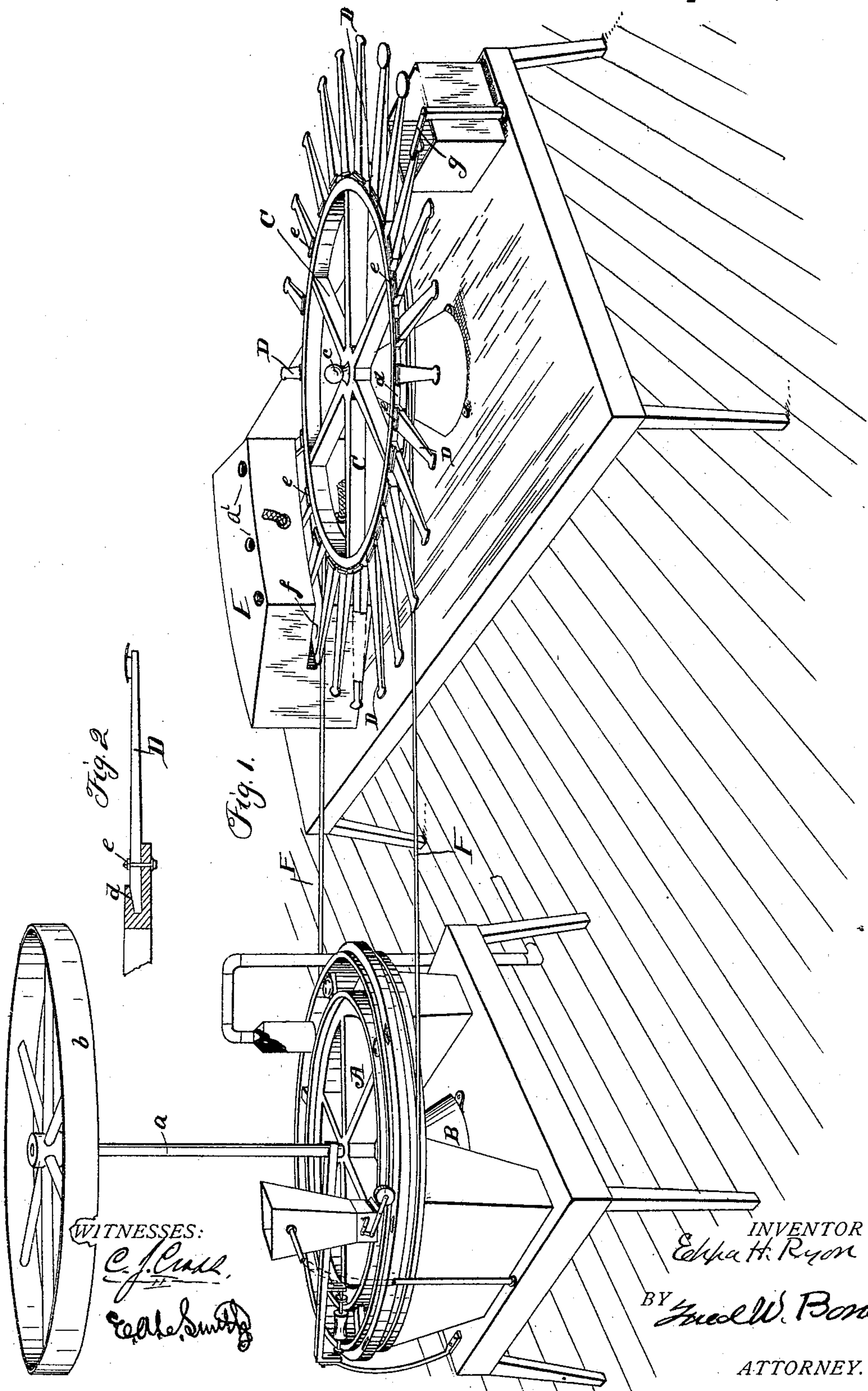
(No Model.)

E. H. RYON.

WATCH DIAL ENAMELING AND BAKING MACHINE.

No. 459,949.

Patented Sept. 22, 1891.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EPPA H. RYON, OF AURORA, ILLINOIS.

## WATCH-DIAL ENAMELING AND BAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 459,949, dated September 22, 1891.

Application filed April 30, 1891. Serial No. 391,082. (No model.)

*To all whom it may concern:*

Be it known that I, EPPA H. RYON, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have  
5 invented certain new and useful Improvements in Watch-Dial Enameling and Baking Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a perspective view. Fig. 2 is a detached view of one of the dial-carrying  
15 arms, showing a portion of the baking-wheel and one of the arms properly clamped thereto.

The present invention has relation to dial enameling and baking machines; and it consists in the different parts and combination  
20 of parts hereinafter described, and particularly pointed out in the claim.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

25 In the accompanying drawings, A represents the dial-enameling wheel, which is substantially of the form shown in Fig. 1, and is propelled by means of the shaft *a* and the pulley *b*. The bottom or lower end of the  
30 shaft *a* is properly journaled to its support B.

The enameling-wheel A is for the purpose of holding the dial-plates designed to be enameled, which wheel, together with its different parts and attachments, has been fully described in my application, Serial No. 389,448,  
35 filed April 18, 1891.

The baking-wheel C is properly journaled to the post *c*, and is provided with the arms D, which arms are preferably made of burnt  
40 clay or other non-combustible material. The periphery of the baking-wheel C is provided with the groove *d*, which groove is for the purpose of receiving the inner ends of the arms D. For the purpose of securely attaching the  
45 arms D to the wheel C the clamps *e* are provided, which clamps embrace the top or upper sides of the arms D, as illustrated in Fig. 2.

The outer ends of the arms D are formed

large enough to properly hold a watch-dial. To the side of the baking-wheel C is located  
50 the baking-furnace E, which furnace is provided with the opening *f*. The furnace E is so adjusted and arranged that the opening *f* will come in line with the arms D, through which opening the arms D pass as the wheel  
55 C revolves.

For the purpose of rotating the baking-wheel C the belt F is provided, which belt extends around the wheels A and C or their  
60 equivalents, and for the purpose of causing the baking-wheel C to rotate slower than the enameling-wheel A the propelling-pulley of the enameling-wheel A should be somewhat  
65 smaller in diameter than the propelling-wheel of the baking-wheel C. Within the furnace E are placed any desired number of gas-jets, which are for the purpose of heating the furnace.

The furnace E should be of sufficient size to permit the dials to remain within said furnace a sufficient length of time to properly  
70 bake the enamel. It will be understood that the size of the furnace will to a certain extent be governed by the velocity of the baking-wheel, as it will be seen that when a slow  
75 motion is given to the baking-wheel C the arms carrying the dials will remain in the furnace a greater length of time than when a higher rate of speed is given to the baking-wheel C.  
80

In use the dials are removed from the wheel A after they have been properly enameled and placed upon the outer ends of the arms D and carried through the furnace E. For  
85 the purpose of automatically removing the dials from the arms D after said dials have been properly baked the arm *g* is provided, which arm is so adjusted that it will sweep the dials from the arms as they pass under the arm *g*. It will be understood that the  
90 belt F should be made of wire for the purpose of preventing it from burning in the event it is located or comes close to furnace E.

For the purpose of allowing the escape of gas from the furnace in the event it is not  
95 all consumed the openings *a'* are formed,

which may be located substantially as illustrated in Fig. 1.

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

The combination of the revolving wheel C, provided with the non-combustible arms D, the furnace E, provided with the opening *f*, and the arm *g*, located above the non-com-

bustible arms D, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EPPA H. RYON.

Witnesses:

GEORGE H. ALSCHULER,  
L. E. WHITEHOUSE.