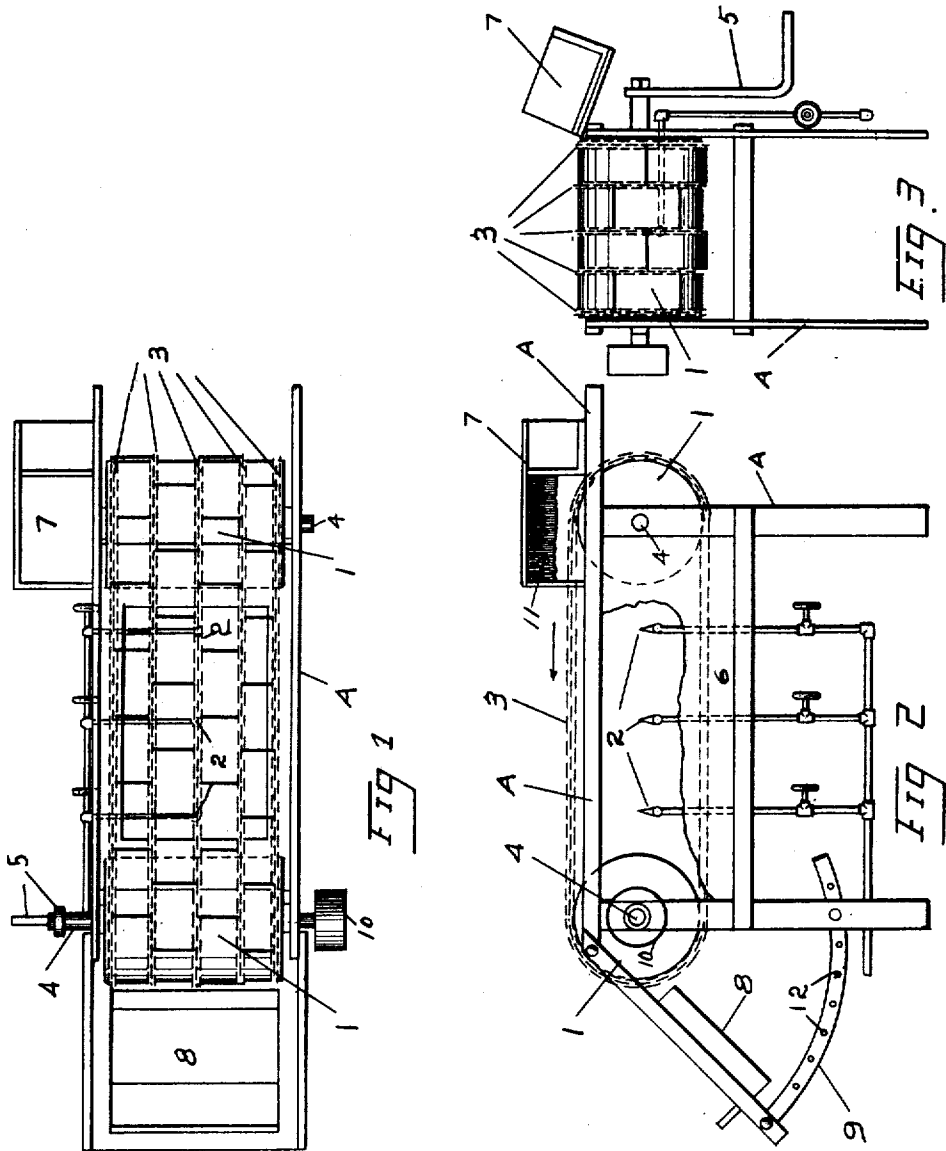


T. LOVENDALE.
 DEVICE FOR ENAMEL PRINTING.
 APPLICATION FILED AUG. 23, 1911.

1,023,160.

Patented Apr. 16, 1912.



WITNESSES
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THEODORE LOVENDALE, OF SALT LAKE CITY, UTAH.

DEVICE FOR ENAMEL-PRINTING.

1,023,160.

Specification of Letters Patent.

Patented Apr. 16, 1912.

Application filed August 23, 1911. Serial No. 645,674.

To all whom it may concern:

Be it known that I, THEODORE LOVENDALE, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake

and State of Utah, have invented certain new and useful Improvements in Devices for Enamel-Printing, of which the following is a specification.

At times it is desirable to print cards and other paper with ink and certain other ingredients which, when subjected to the required degree of heat when drying, will produce a glazed or enameled effect to the printing. And in many places this is done by first printing the cards or matter with the required ink and by hand to then sprinkle or cover each letter with certain pulverized freshly printed letters which have been covered evenly with the powder, over a lamp or other form of heat, and great care must be exercised to secure the required amount of heat and not to discolor the paper.

The purpose of my invention is to provide a means by which enameling may be economically, rapidly and uniformly applied to the paper and by which said paper may be quickly printed with an enameling ink without the loss of time necessary to handle each separate piece of printed matter by hand. These objects I accomplish with the device illustrated in the accompanying drawings in which similar letters of reference indicate like parts throughout the several figures, and by which my method of enamel printing may be cheaply and rapidly carried out.

Figure 1 is a plan of the device with the heat elements produced by gas jets. Fig. 2 is a side elevation of the same. Fig. 3 is an end elevation of the same.

In the drawings illustrating the device, a frame A has mounted therein two drums 1, and in a plane between them is placed the necessary heat radiators, which in the drawings shown and as now used by me, are gas jets 2, but, as will be readily observed any form of radiated heat may be used, such as that from gas jets, electric radiators or hot air. Inclosing said drums and carried thereon is an endless belt screen 3, made of some slow fusing flexible material, or made flexible by hinges and pivots such as metal chains with cross bars or wires connecting some of the links of the parallel chains to form a flexible metal screen. Said drums

may have crank handles 5 fitted on the shafts 4 of said drums 1 for rotating them or power driven pulleys 10 may be used to rotate said belt screen 3. Either form of motive power may be used to rotate said drums and thereby the said screen is made to travel in the direction of the arrow. A housing 6 having an open top is secured within said frame A for the purpose of controlling and directing the heat as desired. At one end of said frame and adjacent said belt screen is placed the feeding box 7, across the front side of which is horizontally fitted a broad fine haired brush 11. The purpose being to sprinkle the enameling material on the freshly printed sheets and with the said brush 11 to remove any excess from one sheet as it is withdrawn from said box 7, and to brush or cause the enameling powder to fall on the next sheet. The sheet of paper so removed from the feeding box 7 is then placed on the said screen and is thereby carried over the heat elements, thus subjecting the said sheet of prepared paper to the action of the heat, which heat by liquefying or melting the enameling material produces the desired enamel effect to the letters and quickly drying and solidifying the same. The heat required to produce the desired results may be secured and controlled by the amount of heat at each gas jet or the time of exposure, which is the amount of time required for the printed matter to pass over the screen 3. At the other end of the said screen is provided a receiving box 8, within which the finished printed matter falls. To give this the right angle to receive and hold the printed matter delivered to it, a segment brace 9 is pivoted to said box, and in said segment brace 9 is provided the openings 12, within which pins may be inserted to engage the said frame A. In this way the receiving box may be made to hold the different sized sheets of printed matter so delivered into it.

Having thus described my device I desire to secure by Letters Patent and claim:—

1. In a device of the class described the combination of a frame, drums mounted therein, means to rotate said drums, an endless belt screen inclosing said drums, heat elements between said drums and within said screen adapted to supply heat to and around the upper portion of said screen, a feeding box, and a brush across the open face of said box.

2. In a device of the class described the combination of a frame, drums mounted therein, means to rotate said drums, an endless metallic screen belt inclosing said drums, means to supply heat around the upper portion of said belt, a box at one end of said belt and having the side adjacent the belt open, and a brush across said open side of the box.
3. In a device of the class described the combination of two revoluble drums, an endless belt screen inclosing said drums, heat elements positioned between said drums and adapted to supply heat to and around the upper portion of said belt screen, means to automatically and uniformly apply enameling material to printed matter adjacent one end of said belt screen, and means to rotate said drums.
- In testimony whereof I have affixed my signature in presence of two witnesses.
- THEODORE LOVENDALE.
- Witnesses:
SAM RANEY,
W. R. WILLIAMS.