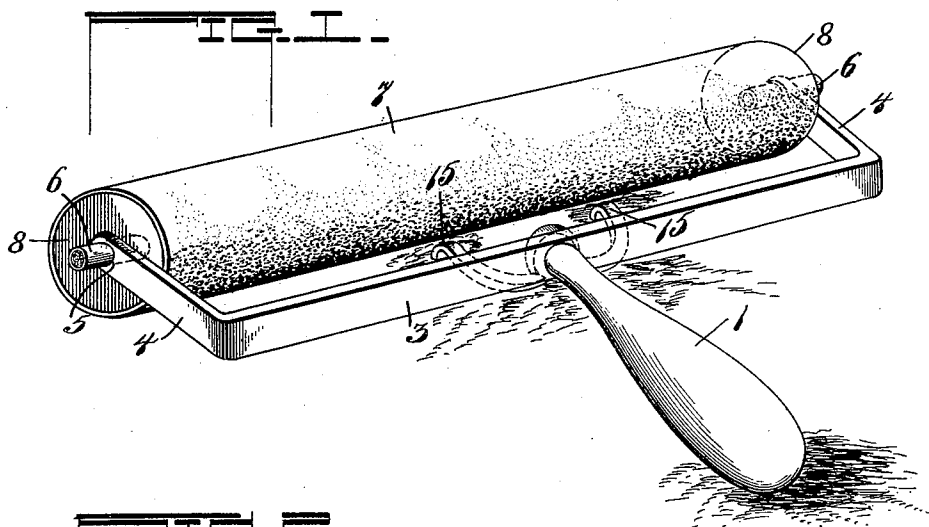
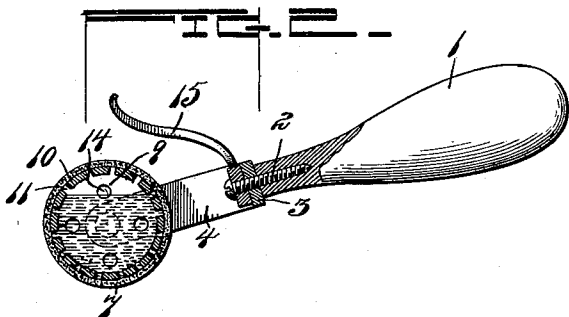
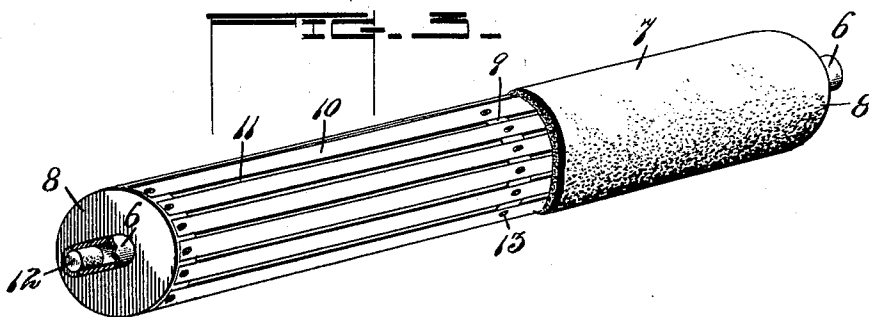


(No Model.)

H. L. ROUX.
LETTER COPYING ROLLER.

No. 596,090.

Patented Dec. 28, 1897.



Inventor

Harry L. Roux,

Witnesses

Milton O'Connell,

By *his* Attorneys,

C. E. [Signature]

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

HARRY L. ROUX, OF GALVESTON, TEXAS, ASSIGNOR OF TWO-THIRDS TO
JACOB SINGER AND A. J. A. CHIAPELLA, OF SAME PLACE.

LETTER-COPYING ROLLER.

SPECIFICATION forming part of Letters Patent No. 596,090, dated December 28, 1897.

Application filed November 4, 1896. Serial No. 611,064. (No model.)

To all whom it may concern:

Be it known that I, HARRY L. ROUX, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented a new and useful Letter-Copying Roller, of which the following is a specification.

My invention relates to a moistening-roller for letter-copying, and has for its object to provide a simple device for facilitating the copying of letters without the use of a press, blotters, pads, and similar appliances usually employed for this purpose, the construction of the device embodying my invention being such as to enable copying to be accomplished without the risk of blotting or blurring the manuscript which is being copied.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of a copying-roller constructed in accordance with my invention, the same being shown supported by the fingers or rests adapted for holding the roller out of contact with the surface of a table, desk, or other supporting-surface when not in use. Fig. 2 is a sectional view of the same, taken in a plane at right angles to the axis of the roller, the device being shown in its operative position. Fig. 3 is a detail view, partly broken away, of the roller detached.

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

1 designates a handle which is attached, by means of a threaded spur or screw 2, (shown in Fig. 2,) to the center of a frame or yoke 3, having parallel side arms 4, fitted with bearings 5 for the reception of the hollow or tubular trunnions 6 at the extremities of the roller 7. This roller is of cylindrical construction and comprises a plurality of spaced terminal and intermediate heads 8 and 9, respectively connected by longitudinal strips 10, which are spaced apart at their contiguous edges to form longitudinal slots 11, said hollow trunnions communicating, respectively, with the compartments of the interior of the roller to

provide for the introduction of a moistening liquid, as water, being fitted with removable stoppers 12, which may consist of corks, as illustrated in the drawings, or of any other suitable form of closures or caps. The strips may be secured to the peripheries of the spaced heads by any suitable means, such as screws 13, and the entire cylindrical surface of the roller is covered by a layer or sheet of absorbent material of any desired construction—such as sponge, cloth, felt, chamois-skin, or the equivalent thereof—which is adapted to become saturated by water escaping through the longitudinal spaces or slots between the strips to facilitate the uniform distribution of moisture upon the back of a letter or paper to be copied. In order to allow communication between the compartments of the interior of the roller, the intermediate head or heads employed between the terminal heads for supporting the intermediate points of the strips may be provided with openings 14.

In practice the letter to be copied is placed face downward upon a previously-moistened sheet, which is adapted to receive the impression or copy, after which the roller of the copying device embodying my invention is passed over the back of said letter, and sufficient pressure is applied to communicate the impression of the characters upon its under surface to the copy-sheet. The letter is sufficiently moistened by means of the roller of the copying apparatus to insure the impression of the characters upon its under side without causing the running or blurring of the ink.

My device is especially adapted for use at a desk within convenient reach of a writer, whereby letters as written may be copied without leaving the desk and without involving the inconveniences due to the use of a copying apparatus of any of the ordinary forms, and hence in order to prevent the roller from moistening and injuring objects when not in use I provide the same with roller-supports, consisting of forwardly-divergent fingers 15, which spring from the center of the body portion or cross-bar of the yoke or frame and extend forward to a point approximately in a plane extending through the axis of the roller

perpendicular to the plane of the yoke and handle, whereby when the apparatus is not in use it may be inverted, as shown in Fig. 1, and arranged with the extremities of said fingers and the tip of the handle in contact with the table, desk, or other supporting-surface. Thus the roller is held out of contact with said supporting-surface and yet is within easy reach and is maintained permanently in operative condition. When it is desired to copy a letter, it is simply necessary to grasp the handle and invert the device to bring the roller into contact with the back of a letter or paper.

From the above description it will be seen, furthermore, that by employing hollow or tubular trunnions to form the inlet or supply passages for the interior of the roller the same are accessible in all positions of the roller and yet do not interfere with the operation of the device and are not liable in case of a slight leakage, due to the careless insertion of the stopper, to deposit water upon the surface of the sheet being copied. The extremities or outlet-openings of the trunnions are located beyond the bearings in the yoke.

The herein-described construction of the body of the roller, which consists of terminal and intermediate heads and longitudinally-disposed strips secured to the peripheries of said heads and spaced apart at their contiguous edges to form longitudinal slots, is preferable for the reason that the strips are capable of yielding under transverse strain due to passing over an uneven surface without permanently distorting or indenting the surface

of the roller, and in addition to this a severe pressure may be applied by the roller to the surface which is being moistened without danger of destroying the true cylindrical shape of the roller. A further advantage of this construction resides in the fact that the roller may be constructed at a less expense than the ordinary forms of perforated metallic rollers, and the resulting article possesses the requisite strength without the weight of a metal roller.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

A moistening device of the class described, having a hollow roller consisting of terminal and intermediate heads, and longitudinally-disposed strips secured to the peripheries of the heads and spaced apart at their contiguous edges to form longitudinal slots through which interior moisture may escape, an absorbent covering inclosing said roller, and a frame in which the terminal trunnions of the roller are mounted, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HARRY L. ROUX.

Witnesses:

J. E. TELLER,
H. L. TELLER.