Dec. 28, 1926. 1,612,772

F. W. STORCK

MOISTENER

Filed March 19, 1925

Fig. 1

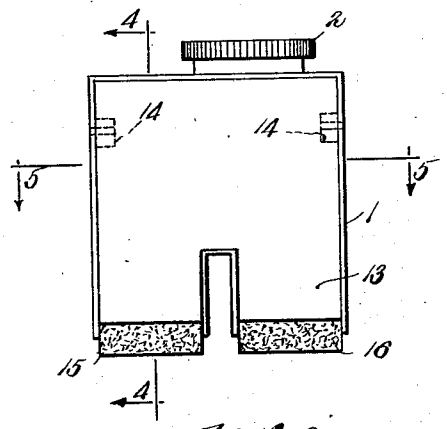


Fig. 2

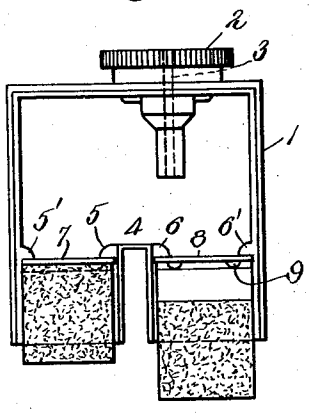


Fig. 3

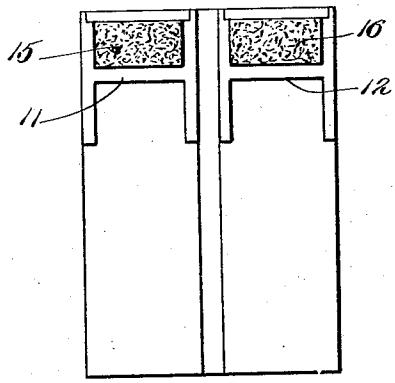


Fig. 4

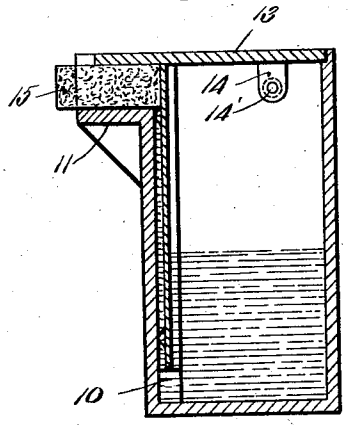
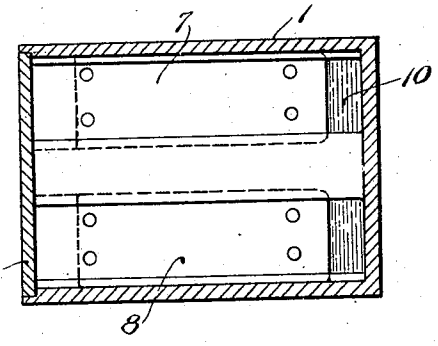


Fig. 5



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UNITED STATES PATENT OFFICE.

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MOISTENER.

Application filed March 19, 1925. Serial No. 16,726.

My invention relates to that type of moistener which is intended to be used for moistening a strip of gummed paper, or a coil of wound postage stamps, or similar use.

It will be understood that such devices are commonly incorporated in machines for serving paper tape having a gummed surface which is to be moistened for use, and in machines for affixing postage stamps which are supplied in the form of wound coils.

It has been the object of my invention to eliminate a large part of the wick system commonly used and to afford a means for supplying water in the desired amount to a small wick which is readily removable for the purpose of cleaning. Heretofore it has been common practice to divide the wick into two portions, one of which is a small and readily removable portion arranged to contact with the gummed surface to be moistened, and the other of which contacts with the inner part of the first described wick and extends into the water tank. As this latter described portion of the wick system is entirely hidden within the tank and is not readily removable for cleaning, it has a tendency to become clogged with the finely divided matter which is commonly held in suspension in most waters, and after a period of use it is likely to become so clogged that its wick action is seriously impaired. I have undertaken to eliminate this part of the wick system entirely and to afford means for supplying water to the removable wick member, which does the actual moistening, by means of a passage designed to operate by capillary action.

My device will be best understood by reference to the accompanying drawings in which—

Fig. 1 is a top view of my moistener.

Fig. 2 is a top view of my device with the tank cover removed.

Fig. 3 is a front view of my device.

Fig. 4 is a cross-section on line 4—4 of Fig. 1.

Fig. 5 is a cross-section on line 5—5 of Fig. 1.

Referring now more specifically to the drawings, 1 is a water tank provided with an opening which is closed by a removable plug 2 located near the top of the tank and provided with a vent passage 3. The front wall of the tank has a slight inset portion 4 in the center thereof on each side of which are ribs 5 and 6, which ribs have a flat forward surface spaced slightly away from the front wall of the tank. On the side walls of the tank opposite ribs 5 and 6 respectively are like ribs 5′ and 6′. The ribs 5—5′ and 6—6′ support respectively plates 7 and 8 which are slid into position between these ribs and the front wall and pressed backward into firm engagement with the ribs 5—5′ and 6—6′ respectively by means of small bosses 9 which are pressed out of plates 7 and 8 which bear against the adjacent tank wall. Thus there is formed a narrow passage between plate 7 and the adjacent front wall of the tank, and also a narrow passage between plate 8 and the adjacent front wall of the tank. As plates 7 and 8 abut against solid extensions between the bottom portions of the ribs 5—5′ and 6—6′ and the adjacent front wall of the tank 1 (as at 10 in Fig. 4) there is a passage beneath each plate 7 and 8, which passage communicates with the main body of the tank.

Cast integral upon the front wall of the tank are rectangular channel-forming members 11 and 12. A cover 13 closes the top of the tank 1 and extends outwardly over some of said channel members 11 and 12. This cover 13 is provided with opposite lugs 14, each of which is provided with a threaded hole 14′ which registers with a threaded hole in the adjacent side of the casing so that screws may be entered within said holes to retain said cover in position. Within each of the rectangular channel-forming members 11 and 12 there is inserted a small wick forming block of felt 15 and 16. These blocks of felt 15 and 16 butt respectively against plates 7 and 8 and are supported on top by the cover 13.

The operation of my device is as follows: Plug 2 is removed and water is placed in the tank. The tank is then tilted forward toward the side bearing the felt wicks so that water will fill the narrow passages between the front wall of the tank and plates 7 and 8, and contact with and moisten the felt blocks or wicks 15 and 16. The device is then restored to an upright position and inserted in the machine wherein it is intended to do its work. Capillary action will maintain a column of water in each of the

narrow passages between plates 7 and 8 of the front wall of the tank, which columns of water will each remain constantly in contact with that wick to which it extends. As moisture is withdrawn from wicks 15 and 16 in the course of operation of the device it will be replaced by water drawn from the capillary columns. The volume of water thus supplied is constant and unfailing. The wicks 15 and 16 may readily be removed from time to time, when they become clogged with gum, and cleaned, or replaced by new wicks.

Having thus fully described my invention what I claim is:

1. In a device of the character specified the combination of a tank, a wick mounted in said tank above the water level and a capillary passage extending from a point near the bottom of said tank to said wick.

2. In a device of the character specified the combination of a tank, a plate mounted in said tank adjacent to a wall thereof and in slightly spaced relation therewith, and a wick mounted near the top of said tank in a manner whereby a part of said wick may overlie the space between said plate and said wall.

3. In a device of the character specified the combination of a tank provided with ribs spaced slightly distant from the wall thereof, a plate slidably mounted between said ribs and the adjacent wall of said tank and held in slightly spaced relation with said wall by bosses on said plate arranged to contact with said wall of said tank, and a wick mounted near the top of said tank in a manner whereby a part of said wick may overlie the space between said plate and said wall.

In witness whereof I have hereunto affixed my signature.

FREDERICK W. STORCK.