June 18, 1940. W. VON NESSEN ET AL 2,204,977

MOISTENING AND STRIP SERVING DEVICE

Filed Oct. 11, 1938

Fig. 1.

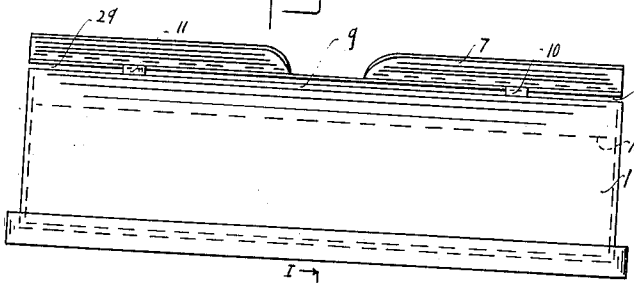
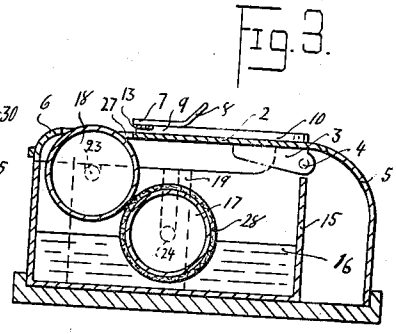


Fig. 3.



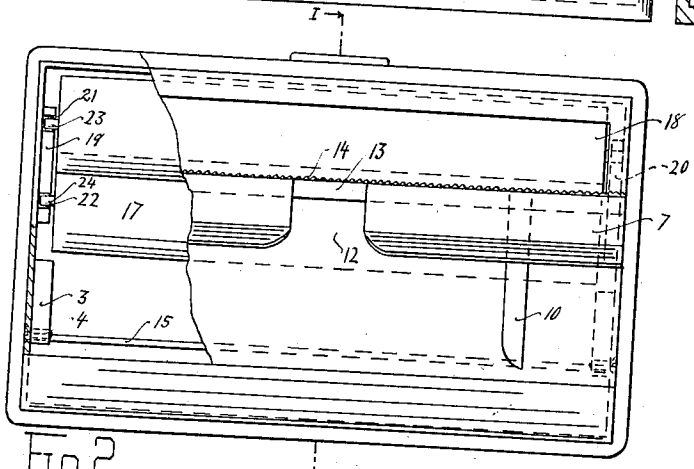


Fig. 2.

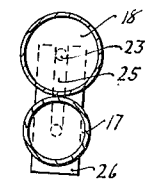


Fig. 4.

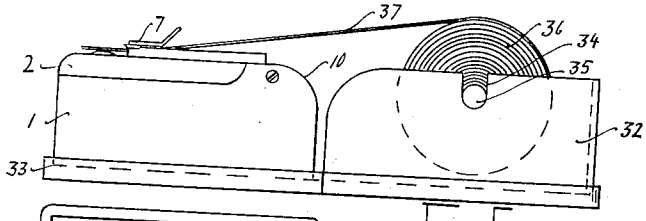


Fig. 5.

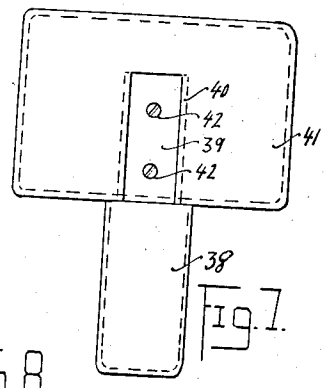
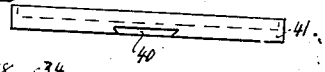


Fig. 7.

Fig. 8.



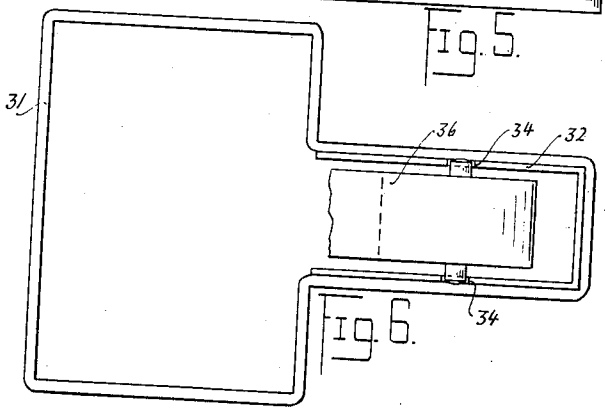


Fig. 6.

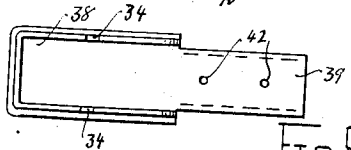


Fig. 9.

INVENTORS
Walter von Nessen
Fritz Lemle
Georg Benjamin
BY
ATTORNEY

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MOISTENING AND STRIP SERVING DEVICE

Walter von Nessen and Fritz Lemle, New York, N. Y., assignors, by direct and mesne assignments, to Fred J. Mallet, Philadelphia, Pa.

Application October 11, 1938, Serial No. 234,368

14 Claims. (Cl. 91—14.5)

Our invention relates to improvements in devices for moistening envelopes, labels, stamps, strips, etc.

It is an object of our invention to provide means by which the glued or gummed portion of envelopes of any size can be moistened in a rapid and sanitary manner.

Another object of our invention is to provide the same moistening device with means for moistening labels, stamps, strips of paper or tissue and the like.

Another object of our invention is to combine a moistening device with a strip serving device in such a manner that any requested portion of the served strip can be moistened and then separated from the rest of the strip in a very convenient and practical manner.

Another object of our invention is to provide means by which either a gummed surface can be moistened or a surface can be gummed.

Another object of our invention is to provide means by which the amount of liquid which is distributed over a surface to be moistened can be adapted to the special circumstances.

Thus various operations can be executed in a simple and convenient manner by means of a single device. In spite of these several possibilities and applications a device according to our invention is very handy, inexpensive to manufacture and can be handled by anyone without any previous experience, or difficulty.

Other and further objects and advantages of our invention will be herein set forth and the novel features thereof defined by the appended claims.

In the accompanying drawing several embodiments of our invention are shown.

Fig. 1 shows in front view a moistening device according to our invention.

Fig. 2 is a plan view of a moistening device according to Fig. 1, the parts being partly broken away.

Fig. 3 shows a cross-section along the lines I—I in Fig. 2.

Fig. 4 is an alternative construction of a part of the device according to Figs. 1–3.

Fig. 5 shows a side elevation of a combined moistening and strip-serving device.

Fig. 6 is a plan view of a base plate for a combined moistening and strip-serving device; only the parts belonging to the strip-serving device are inserted in the base plate.

Fig. 7 shows the under side of a base plate for a combined moistening and strip-serving device from which the section of the base plate to the strip-serving device is detachable.

Fig. 8 shows a side elevation of a base plate according to Fig. 7 after removal of the base plate section belonging to the strip-serving device, and

Fig. 9 shows a plan view of the base plate sections belonging to the strip-serving device.

The moistening device according to our invention comprises a frame on casing 1 which may consist of any suitable material. Especially convenient are synthetic materials as are known under the trade name "Bakelite" but metal, wood and the like can be employed also under certain circumstances. The casing 1 is closed by a cover 2 which is pivotally connected with the casing itself by means of hinges 3 rotatable around pins 4. However the connection between cover 2 and casing 1 can be accomplished by any other suitable means.

Section 5 of the wall of casing 1 which forms a continuation of cover 2 is rounded in order to facilitate the introduction of any papers, tissues, etc., into the device. The front part 6 of cover 2 is also rounded in order to make the removal of any moistened papers or tissues easier.

On the upper side of the cover 2 a strip-like guide 7 is provided. This guide 7 is mounted with an upward bent section 8 in order to facilitate the introduction of any article to be moistened between cover 2 and guide 7. It is arranged parallel to cover 2 but a small distance from it, the distance depending upon the thickness of the articles which are to be moistened. The connection between the guide 7 and the cover 2 can be effected by any suitable means, for instance, by screws. It is also possible to make the guide integral with the cover 2. This will be especially convenient if the device consists of Bakelite or similar material. The guiding slot 9 which is thus formed between guide 7 and the surface of cover 2 is interrupted by two other guides 10 and 11 which are arranged vertically to guide 7 but it is also possible to arrange these guides at a different angle.

In the embodiment of our invention shown in Fig. 1 both guides 10 and 11 are arranged symmetrically so that an inner broad guiding slot and two outer smaller guiding slots 29 and 30 are formed. However, it will be possible also to arrange guides 10 and 11 assymmetrically. Under certain circumstances one of guides 10 and 11 will be sufficient.

In the middle of guide 7 or at any other suitable point a recess 12 is provided which serves to facilitate the introduction of any article to be

moistened into the guiding slot 9 since this recess permits the pulling of an article to be moistened right into the guiding slot by pressing a finger on that article while it is being introduced.

On the side of guide 7 opposite the upward bent section 8 a cut-off knife 13 is provided. This knife can have either a smooth edge or, as shown, a serrated edge 14. The knife which consists of any suitable metal is attached to guide 7 in such a manner that a sufficient broad slit 15 is left for the passage of articles to be moistened. The knife can be attached by screws, by glueing or by any other suitable means to guide 7. If guide 7 consists of Bakelite or similar material the knife is preferably pressed into the material itself. The knife can cover the whole length of guide 7, but often it will be preferable if it is arranged only between guides 10 and 11. Under certain circumstances it will also be possible to attach the knife to guides 10 and 11 themselves.

The casing 1 is partitioned by a vertical wall 15 so that a liquid container 16 is formed. In this container two rollers 17 and 18 are arranged. The bearings for rollers 17 and 18 are formed by two supports 19 and 20 which are arranged on either side of the side walls of casing 1. An open topped vertical slot 21 for roller 18 and an open topped vertical slot 22 for roller 17 are provided in each of the supports 19 and 20. The rollers rest in these bearing slots by means of pins 23 and 24. The slots 21 are shorter than the slots 22 as shown in Fig. 3 so that the roller 18 is higher located than roller 17. In consequence of the open slots rollers 17 and 18 are easily interchangeable against each other.

Under certain circumstances the arrangement of the rollers 17 and 18 shown in Fig. 4 is preferable. In this embodiment only one open topped slot 25 in each of two supports 26 arranged on either side wall of casing 1 is provided. Both rollers are inserted into these slots 25 so that they are placed one on top of the other. Roller 17 dips into a liquid 26 contained in container 16 and roller 18 projects through an opening 27 in cover 2. The peripheries of both rollers are in contact with each other so that liquid 26 which is absorbed by roller 17 is transferred to roller 18 which in turn transfers it to the surface to be moistened.

The liquid 26 can consist either of water if the surface to be moistened is already gummed or of any adhesive material if the surface to be moistened is not gummed.

Under certain circumstances it will be convenient to cover the periphery of one of the rollers for instance, of roller 17, with a surface 28 which has a higher capacity for distribution of liquid than the surface of the other roller. Thereby it will be possible to transfer more or less moisture to a surface to be moistened simply by interchanging the rollers.

The rollers can consist of any suitable material, for instance, porous rubber, porous Bakelite, felt or cotton-fibre, etc.

Under certain circumstances it will also be possible to replace the rollers by brushes.

If the moistening device is to be used for moistening the gummed portions of envelopes these envelopes are introduced into one of the outer guiding slots 29 and 30. These guiding slots will guide the gummed portion of the envelope to be moistened over projecting part of roller 18 so that the gummed portion of this envelope is moistened.

The guidance given by guide 7, cover 2 and guides 11 or 10 respectively will secure that the whole gummed portion of the envelope is brought in contact with roller 18 without the necessity of using any special attention or of applying any additional pressure by hand against the envelope. At the same time the roller 18 will make a partial revolution so that there is always a moistened surface ready.

Practical tests have shown that a great number of envelopes can be moistened in this manner in a short time and without any difficulty.

If a label, strip, stamp or similar piece of paper or tissue is to be moistened it is introduced into the middle part of guiding slot 9 between guides 10 and 11. The introduction of an article to be moistened can be substantially facilitated by using recess 12 in the manner previously described.

If an article is to be moistened completely the whole article is simply pulled through the guiding slot whereby it comes in contact with the projecting part of roller 18 and is correspondingly moistened. In case only a portion of an article is to be moistened and then is to be separated from the rest the required portion is pulled through the guiding slot and then cut off by means of cut-off knife 13.

In consequence of the smallness of the surface behind roller 18 and the rounding 6 it is prevented that cover 2 and the whole casing are soiled by moisture or glue escaping from the moistened surface leaving roller 18.

A moistening device according to our invention permits consequently the moistening of envelopes of any size and labels, strips, stamps, etc., in a very convenient and simple manner.

In Fig. 5 a moistening device similar to that shown in Figs. 1–3 is shown so that it will be unnecessary to describe the moistening device in detail. The moistening device rests upon a heavy base plate 31 which supports a frame 32. This frame can be integral with base plate 31 or can be a separate construction which is attached to the base plate by suitable means, for instance, by screws or rivets. The base plate gives more stability to the moistening device.

Fig. 6 shows base plate 31 and frame 32 in plan view after the moistening device has been removed. Under certain circumstances a rigid attachment of the moistening device and frame 32 to base plate 31 will not be necessary but base plate 31 can be provided with a raised edge 33 which will serve as an abutment.

Frame 32 is provided with two open-topped slots 34 which serve as bearings for an axle 35 of a roll 36 of strip or tape. This roll serves a gummed strip 37 which can be introduced into the moistening device in which a required portion will be moistened and then cut off by cut-off knife 13.

In the embodiment according to Figs. 5 and 6 base plate 31 consists of one piece. However, it will also be possible to provide a separate base plate for the strip-serving device. Figs. 7, 8 and 9 show such an embodiment. 38 is the base plate section for the strip-serving device which section is provided with a dove-tail 39 which fits into a corresponding recess 40 in base plate section 41 for the moistening device. The base plate 39 can be secured by screws 42 if necessary.

While the specific details of construction have been herein shown and described, the invention is not confined thereto as changes and alterations may be made without departing from the spirit thereof as defined by the appended claims.

Having thus described our invention what we

claim as new and desire to secure by Letters Patent is:

1. In a device for moistening envelopes, labels, stamps and strips in combination, a frame, means for moistening a surface brought into contact therewith, two guiding surfaces arranged on said frame parallel to each other but separated by a certain distance for forming a guiding slot adapted to guide an article introduced between them over said moistening means and means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots.

2. In a device for moistening envelopes, labels, stamps and strips in combination, a frame, means for moistening a surface brought into contact therewith, two guiding surfaces arranged on said frame parallel to each other but separated by a certain distance for forming a guiding slot adapted to guide an article introduced between them over said moistening means and means adapted to interrupt said guiding slot at two intermediate points for forming three separate guiding slots the central slot of said guiding slots intended for moistening labels, stamps and strips of any kind, the two outer guiding slots intended for moistening envelopes.

3. In a device for moistening envelopes, labels, stamps and strips in combination, a casing, a cover for closing said casing, means for moistening a surface brought into contact therewith, a guide arranged on said cover parallel to the cover surface but separated by a certain distance, adapted to form a guiding slot between said guide and said cover and adapted to guide an article introduced into it over said moistening means and means adapted to interrupt the guiding slot at at least one intermediate point for forming at least two separate guiding slots, one for envelopes and the other for labels, stamps and strips of any kind.

4. In a device for moistening envelopes, labels, stamps and strips in combination, a casing, a cover for closing said casing, a slot in said cover, a liquid container in said casing, a roller mounted to project with a part of its periphery through said slot and adapted to moisten a surface brought into contact with it, means adapted to transfer liquid from said liquid container to said roller, a strip-like guide arranged on said cover parallel to the cover surface but separated by a certain distance and adapted to form a guiding slot for guiding an article introduced into it over the projecting part of said roller and means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots, one of them intended for moistening labels, stamps and strips and the rest of them for moistening envelopes.

5. In a device for moistening envelopes, labels, stamps and strips in combination, a casing, a cover for closing said casing, a slot in said cover, a liquid container in said casing, a roller mounted to project with a part of its periphery through said slot and adapted to moisten a surface brought into contact with it, a second roller arranged to dip into said liquid container and to be in contact with said first roller, a strip-like guide arranged on said cover parallel to the cover surface but separated by a certain distance and adapted to form a guiding slot for guiding an article introduced into it over the projecting part of said first roller and means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots, one of them intended for moistening labels, stamps and strips and the rest of them for moistening envelopes.

6. In a device for moistening envelopes, labels, stamps and strips in combination, a casing, a cover for closing said casing, a slot in said cover, a liquid container in said casing, a roller arranged to project with a part of its periphery through said slot adapted to moisten a surface brought into contact with it, a second roller arranged to dip into said liquid container and to be in contact with said first roller, one of said rollers having a higher capacity of distribution of liquid than the other, means for supporting said rollers adapted to permit an interchange of said rollers, a strip-like guide arranged on said cover parallel to the cover surface but separated by a certain distance, adapted to form a guiding slot for guiding an article introduced into it over the projecting part of said first roller and means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots, one of them intended for moistening labels, stamps and strips and the rest of them for moistening envelopes.

7. In a device for moistening envelopes, labels, stamps and strips in combination, a frame, means for moistening a surface brought into contact therewith, two guiding surfaces arranged on said frame parallel to each other but separated by a certain distance for forming a guiding slot adapted to guide an article introduced between them over said moistening means, means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots, and a base plate for supporting the frame.

8. In a device for moistening envelopes, labels, stamps and strips in combination, a frame, means for moistening a surface brought into contact therewith on said frame, two guiding surfaces arranged on said frame parallel to each other but separated by a certain distance for forming a guiding slot adapted to guide an article introduced between them from one side over said moistening means, a cut-off knife arranged at the exit of said guiding slot and means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots one intended for labels, stamps of any kind, and the rest of them for moistening envelopes.

9. In combination, a moistening device for moistening envelopes, labels, stamps and strips, comprising a frame, means for moistening a surface brought in contact therewith on said frame, two guiding surfaces arranged on said frame parallel to each other but separated by a certain distance for forming a guiding slot adapted to guide an article introduced between them from one side over said moistening means, a cut-off knife arranged at the exit of said guiding slot, means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots one intended for labels, stamps and strips of any kind and the rest for moistening envelopes, a strip-serving device adapted to deliver a continuous strip, said strip being adapted to be introduced in the guiding slot of said moistening device and to be cut off after a required portion of the strip has been moistened, and a base plate common to said moistening device and said strip-serving device.

10. In a device for moistening envelopes, labels, stamps and strips in combination, a frame,

means for moistening a surface brought in contact therewith on said frame, two guiding surfaces arranged on said frame parallel to each other but separated by a certain distance for forming a guiding slot adapted to guide an article introduced between them from one side over said moistening means, a cut-off knife arranged at the exit of said guiding slot, means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots one intended for labels, stamps and strips of any kind and the rest for moistening envelopes, a second frame, a roll of strip rotatably mounted on said frame and adapted to serve continuously a strip, said strip being adapted to be introduced into said guiding slot and there to be cut off after a required portion of the strip has been moistened and a base plate adapted to support both frames.

11. In a device for moistening envelopes, labels, stamps and strips in combination, a frame, means for moistening a surface brought in contact therewith on said frame, two guiding surfaces arranged on said frame parallel to each other but separated by a certain distance for forming a guiding slot adapted to guide an article introduced between them from one side over said moistening means, a cut-off knife arranged at the exit of said guiding slot and means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots one intended for labels, stamps and strips of any kind and the rest for moistening envelopes, a second frame, a roll of strip rotatably mounted on said second frame and adapted to serve continuously a strip, said strip being adapted to be introduced into said guiding slot and means provided on said second frame adapted to connect it detachably with said first frame.

12. In a device according to claim 11 a dovetail provided on one of said frames and a corresponding recess on the other of said frames.

13. A device for moistening labels, stamps and strips in combination, a casing, a cover for closing said casing, a slot in said cover, a liquid container in said casing, a roller mounted to project with a part of its periphery through said slot and adapted to moisten a surface brought into contact with it, a second roller arranged to dip into said liquid container and to be in contact with said first roller, a strip-like guide arranged in spaced relation to said cover and adapted to form a guiding slot for guiding an article introduced into it over the projecting part of said first roller, means adapted to interrupt said guiding slot at at least one intermediate point for forming at least two separate guiding slots, one of them intended for moistening labels, stamps and strips and the rest of them for moistening envelopes, and a notch opening into the entrance side of said strip-like guide for facilitating the introduction of an article into the guiding slot.

14. A device for moistening labels, stamps and strips in combination, a casing, a cover for closing said casing, a slot in said cover, a liquid container in said casing, a roller mounted to project with a part of its periphery through said slot and adapted to moisten a surface brought into contact with it, a second roller arranged to dip into said liquid container and to be in contact with said first roller, a strip-like guide arranged in spaced relation to said cover and adapted to form a guiding slot for guiding an article introduced into it over the projecting part of said first roller, a cross-bar for interrupting said guiding slot at one intermediate point for forming one broad guiding slot and one narrow guiding slot, said broad guiding slot intended for moistening labels, stamps and strips and the narrow one intended for moistening envelopes, and a notch opening into the entrance side of said strip-like guide provided on that part of said guide which forms said broad guiding slot.

WALTER VON NESSEN.
FRITZ LEMLE.