(No Model.)

2 Sheets—Sheet 1.

J. & R. D. SIMPSON.

PASTER FOR WRAPPERS, &c.

No. 601,594. Patented Mar. 29, 1898.

Fig. 1.

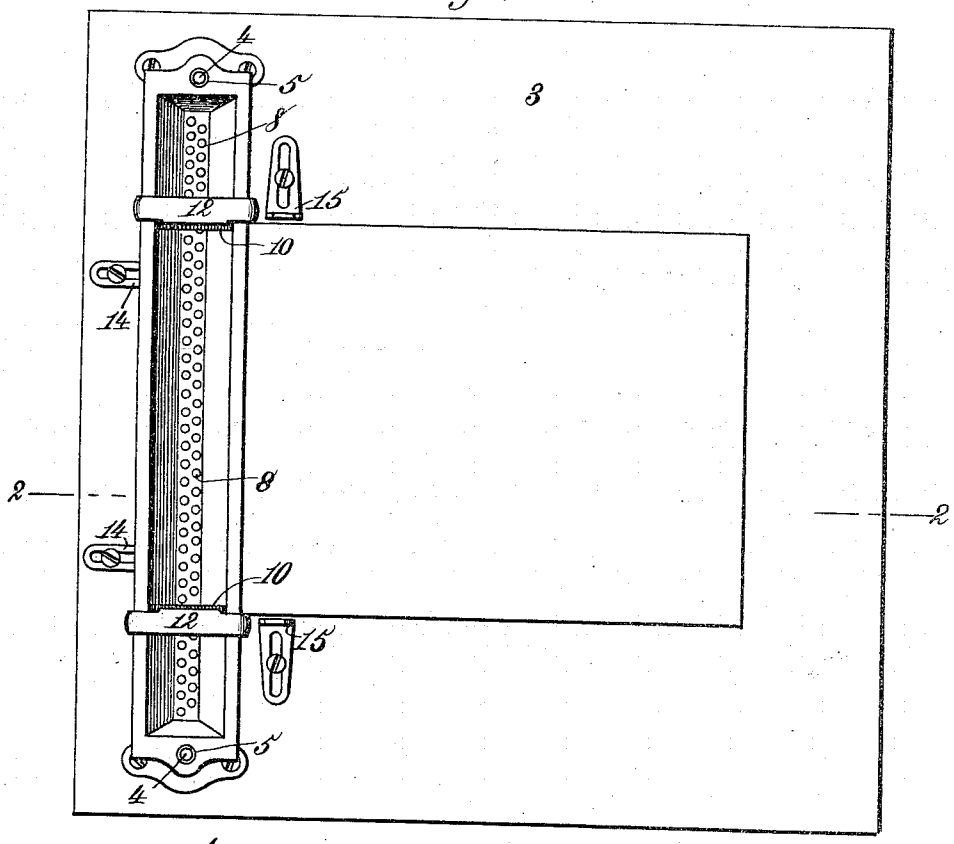


Fig. 2.

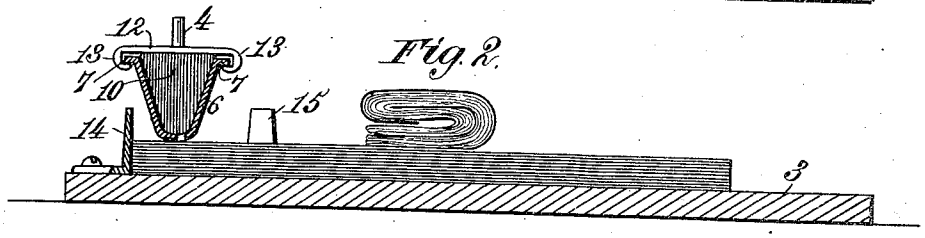
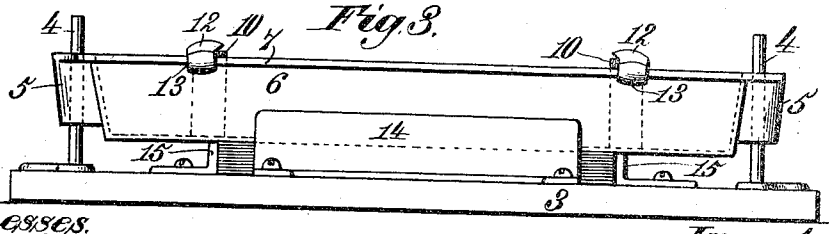


Fig. 3.



Witnesses.
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Albert H. Norris.

Inventors.
Joseph Simpson
Robert D. Simpson.
By James L. Norris.
Atty.

(No Model.) 2 Sheets—Sheet 2.

J. & R. D. SIMPSON.

PASTER FOR WRAPPERS, &c.

No. 601,594. Patented Mar. 29, 1898.

Fig. 4.

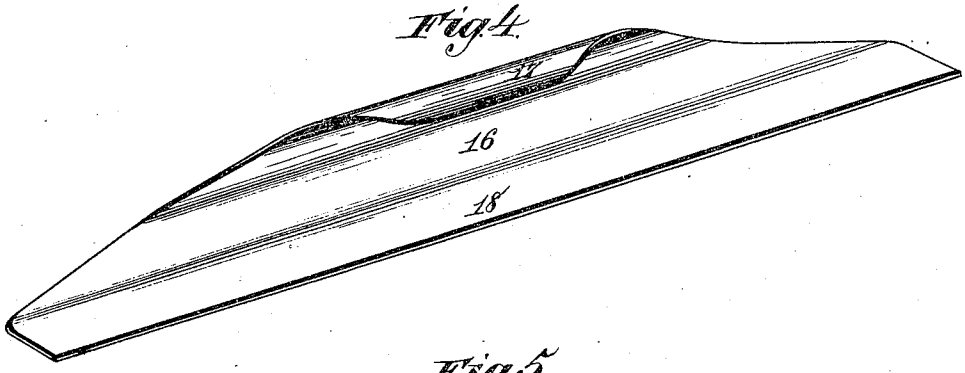


Fig. 5.

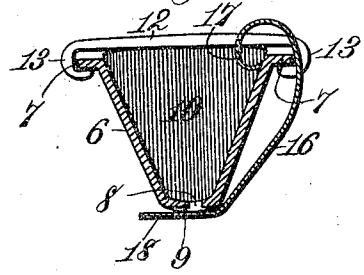


Fig. 9.

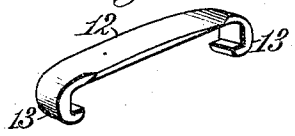


Fig. 8.

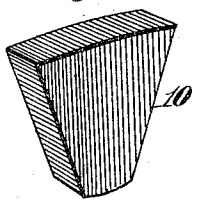


Fig. 6.

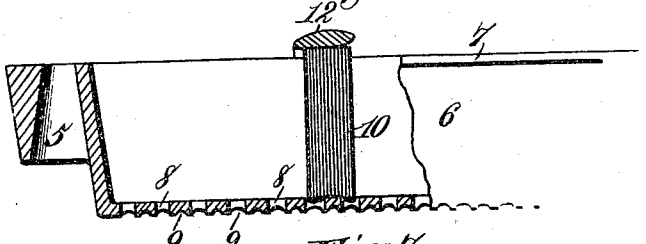
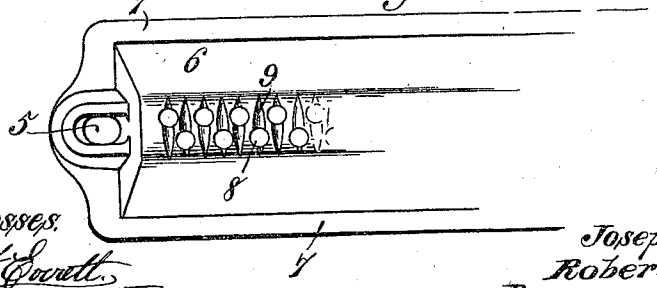


Fig. 7.



Witnesses.
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Inventors
Joseph Simpson
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Atty.

UNITED STATES PATENT OFFICE.

JOSEPH SIMPSON AND ROBERT D. SIMPSON, OF COLUMBUS, OHIO.

PASTER FOR WRAPPERS, &c.

SPECIFICATION forming part of Letters Patent No. 601,594, dated March 29, 1898.

Application filed June 22, 1897. Serial No. 641,827. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH SIMPSON and ROBERT D. SIMPSON, citizens of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented new and useful Improvements in Pasters for Wrappers, &c., of which the following is a specification.

This invention relates to that class of pasters for newspaper and other wrappers wherein a paste-holding trough rests directly against the upper one of a pile of wrappers in such manner that paste can flow through the bottom of the trough onto the wrapper, and a newspaper or other article can be wrapped in the wrapper and the latter be folded and then withdrawn and the pasted edge secured, the paste-trough then falling or coming directly against the next wrapper, and so on throughout the pile. This class of devices as heretofore constructed is objectionable because the trough cannot be practicably and successfully applied to wrappers of varying width to uniformly and properly apply the paste to the wrappers.

The chief object of our invention is to improve pasters of the class referred to and provide novel, simple, efficient, economical, and easily-adjusted devices for damming the paste-trough to vary its length, or, in other words, to confine the paste without possibility of leakage within a certain part of the length of the trough, which length is variable at will for the purpose of adapting the trough to wrappers which differ or vary in width.

The invention also has for its object to provide a novel device for lifting the paste-trough and preventing the escape of paste during the time a fresh supply or pile of wrappers is being placed in position.

To accomplish these objects, our invention consists in the features of construction and in the combination or arrangement of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of our improved paster for newspaper and other wrappers. Fig. 2 is a sectional view taken on the line 2 2, Fig. 1. Fig. 3 is an elevation looking at the rear of the paste-trough. Fig. 4 is a detail perspective view of the device for lifting the paste-trough and closing the bottom wall thereof. Fig. 5 is a detail transverse sectional view showing the lifter in position on the paste-trough. Fig. 6 is a longitudinal sectional view of a portion of the paste-trough. Fig. 7 is a bottom plan view of a portion of the paste-trough. Fig. 8 is a detail perspective view of one of the rubber dams, and Fig. 9 is a detail perspective view of one of the clamp-yokes for wedging and holding the rubber dams in the paste-trough.

In order to enable those skilled in the art to make and use our invention, we will now describe the same in detail, referring to the drawings, in which the numeral 3 indicates a base board or plate of any construction and material suitable for the purpose, but preferably in the form of a square block. This base board or plate is provided with two perpendicular posts 4, located near its edges and extending through guide eyes or orifices 5 at the ends of a paste-trough 6, which is preferably made as a single casting of sufficient weight for the purpose in hand. The side walls of the trough diverge from the bottom wall, and at their upper edges are provided with lateral flanges 7. The bottom wall of the trough is constructed throughout its length with a large number of alternately-arranged perforations 8 and with transverse grooves 9, which intersect these perforations. The transverse grooves and perforations are grouped somewhat closely together, as will be clearly understood by reference to Fig. 7, and the construction is such that the paste passing through the perforations will flow into the grooves and thus be more uniformly distributed upon the wrappers than in those prior paste-troughs where the perforations are actually closed at their lower ends by the wrapper itself when the trough rests thereupon.

The trough is approximately V-shaped in cross-section, and into it are fitted two dams 10, each composed of a soft-rubber block approximately triangular in shape and adapted to accurately fit the inner surfaces of the sides and bottom wall of the trough, as best seen in Figs. 2 and 5. These soft-rubber damming-blocks are adjustable toward and from each

other in the trough to vary its length, or, in other words, to confine the paste within a certain part of the length of the trough, which length can be increased or diminished at will, thereby enabling one trough to be practically used for applying paste to wrappers which differ or vary more or less in width. The upper edges of the damming-blocks are convex or curved and normally project slightly above the upper edge of the trough in such manner that the clamp-yokes 12 can be caused to act upon the upper edges of the blocks to wedge them down tightly in the trough, and thus effectually prevent the paste occupying the space between the dams from leaking past the same. The clamp-yokes are composed of narrow plates of metal having their ends formed into hooks 13, which engage under the flanges 7 at the upper edge of the trough, as best seen in Figs. 2 and 5. The clamp-yokes are slidable longitudinally of the trough, so that they can be moved into and out of engagement with the upper ends of the rubber dam and be adjusted to any required position, according to the adjustment of the dams which may be necessary to adapt the trough to the width of wrappers being used. The pile of wrappers is placed upon the base board or plate to rest at one edge squarely against an adjustable gage or back-stop 14, arranged in rear of the trough. The side edges of the pile of wrappers have a bearing against adjustable side gages or stops 15. The gages 14 and 15 may be adjusted in any suitable manner; but as here shown they are provided with slotted base-pieces having slots through which screws are passed, as usual. The paste-trough rests directly against the uppermost wrapper, as clearly shown in Fig. 2, which figure indicates a newspaper or other article being wrapped up in the uppermost wrapper. When the newspaper or other article is partially wrapped up, as indicated in Fig. 2, the attendant places a finger or hand upon the pile of wrappers in front of the articles being wrapped up and then withdraws the uppermost wrapper from beneath the paste-trough, whereupon the latter will instantly descend and rest against the next wrapper, and so on throughout the pile. The paste in the trough flows through the perforations 8 and is distributed into the transverse grooves 9, so that the paste is applied uniformly to the wrapper, and by reason of the grooves intersecting the perforations the bottom of the paste-trough will not unduly scrape off or remove the paste from the wrapper when the latter is withdrawn from beneath the trough. This is a desirable and important feature in that the depositing of the paste in spots is avoided and the proper quantity of paste is left upon each wrapper, so that it can be properly and securely sealed.

When a fresh pile or supply of wrappers is to be placed in position under the paste-trough, it is necessary to lift the latter, and obviously it is desirable to prevent the outflow of paste during the time that the pile or supply of wrappers is being placed in position. We therefore provide the novel device illustrated in Figs. 4 and 5, which serves as a handle to lift the trough and as a means for closing the perforated bottom of the same. This device is composed of a sheet-metal plate 16, having its upper edge portion rolled or turned into a more or less elastic rim 17, and its lower edge is bent laterally to provide a horizontal flange 18, of a length coextensive with the length of the trough and preferably of a width greater than the width of the bottom of the trough. The flange 18 is adapted to be inserted under the trough and the rolled or turned rim 17 can then be pressed into engagement with the inside of the trough near its upper edge, as clearly shown in Fig. 5. The trough can then be lifted by grasping the rolled or turned rim 17 in the fingers, so that a fresh pile or supply of wrappers can be placed in proper position under the trough, and during this time the outflow of the paste through the perforated bottom is effectually prevented by the flange 18.

Our invention provides a characteristic and novel paster which is susceptible of general and practicable application in connection with wrappers of any width within the capacity of the full length of the trough. The trough can be used in connection with wrappers that vary in width by simply adjusting the dams to meet the conditions required, and there is no possibility of leakage, such as will occur where it is attempted to employ horizontal slides in the bottom of a trough to adapt it to wrappers of varying width.

In adjusting the rubber dams the adjustment should be such that they will cover about one-eighth of an inch of the wrapper at each side, or, in other words, it is advisable to so adjust the dams that the distance between the same will be about one-fourth of an inch less than the width of the wrappers.

Inasmuch as the rubber dams can always be wedged down tight into the trough, it is possible to effectually prevent leakage past the dams.

The paste used in the trough should be rather thick, or in consistency like thick cream.

Having thus described our invention, what we claim is—

1. The combination with a paste-trough, of elastic wedge-shaped damming-blocks fitting tightly against the opposite side walls of said trough, and adjustable toward and from one another for confining the paste within any desired part of the trough between its opposite ends, and devices engaged with the trough and acting upon said wedge-shaped damming-blocks for wedging them in the trough and holding the same in any position to which adjusted, substantially as described.

2. The combination with the paste-trough of a paster device, of wedge-shaped damming-blocks fitted into the trough, and clamps acting upon the damming-blocks and having

hook-shaped ends engaged with the longitudinal edges of the trough, substantially as described.

3. The combination with a base-board having posts, of a paste-trough movable vertically in engagement with the posts, damming-blocks fitted into the chamber of the trough and adjustable toward and from each other, and clamp-yokes adjustable longitudinally of the trough and serving to confine the damming-blocks in any desired position of adjustment, substantially as described.

4. The combination with a base board or plate, and a paste-trough mounted thereupon, of wedge-shaped damming-blocks fitted into the chamber of the trough and adjustable toward and from each other, and clamp-yokes engaging the trough and acting upon the damming-blocks to wedge them in position and prevent leakage, substantially as described.

5. The combination with the paste-trough of a paster device, of elastic damming-blocks fitted into the chamber of the trough, and clamps for confining the damming-blocks in position, substantially as described.

6. The combination with the vertically-movable paste-trough of a paster device, of a trough-lifter having a flange to pass beneath the trough and prevent the escape of paste when the lifter is grasped and the trough is raised thereby, substantially as described.

7. The combination with the paste-trough of a paster device, of a trough-lifter having a rolled or turned rim at its upper edge and a flange at its lower edge constructed to pass under the trough and prevent the escape of paste when the rolled or turned rim is grasped to lift the trough, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOSEPH SIMPSON.
ROBT. D. SIMPSON.

Witnesses:
H. N. HENDERSON,
CHAS. W. LEIGH.