(No Model.) 2 Sheets—Sheet 1.

A. B. TRENNER.

STICKY FLY PAPER.

No. 431,537. Patented July 1, 1890.

Fig. 1.

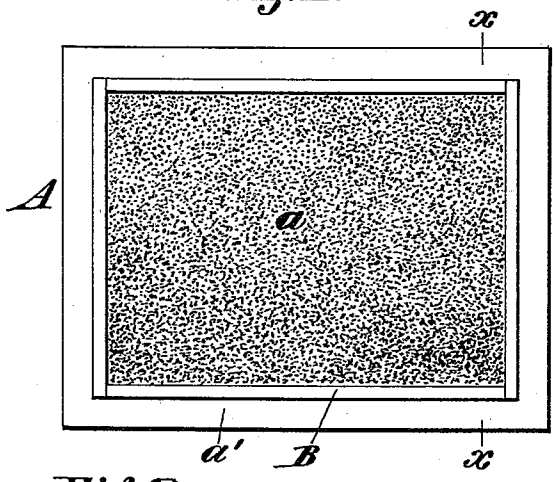


Fig. 3.

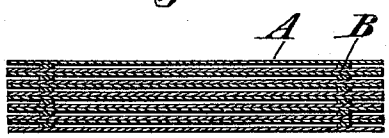


Fig. 4.

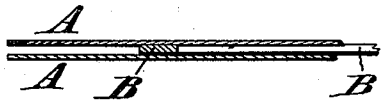


Fig. 5.

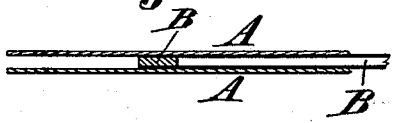


Fig. 6.

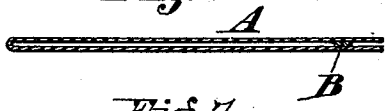


Fig. 2.

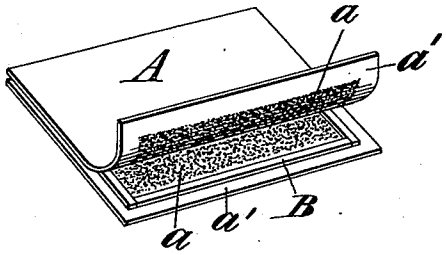


Fig. 7.

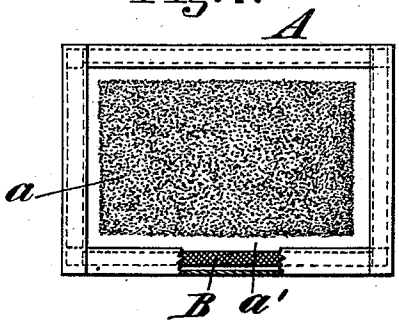


Fig. 8.

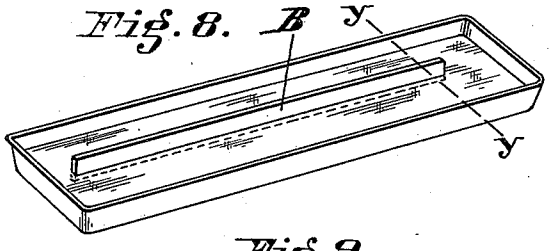


Fig. 9.

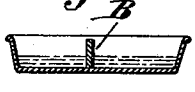
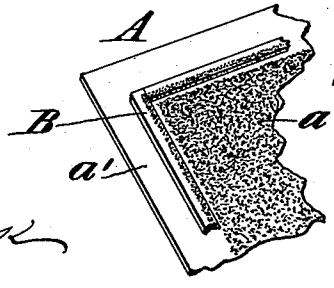


Fig. 10.



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(No Model.) 2 Sheets—Sheet 2.

A. B. TRENNER.

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Fig. 11.

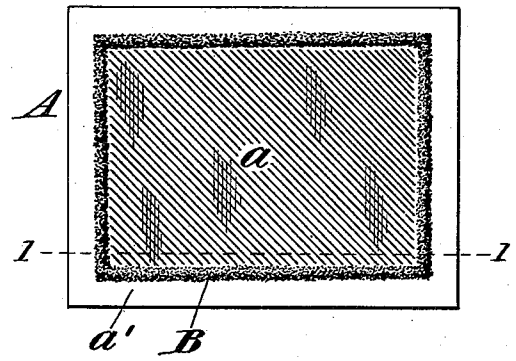


Fig. 12.

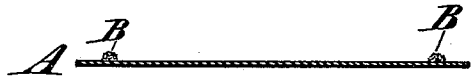
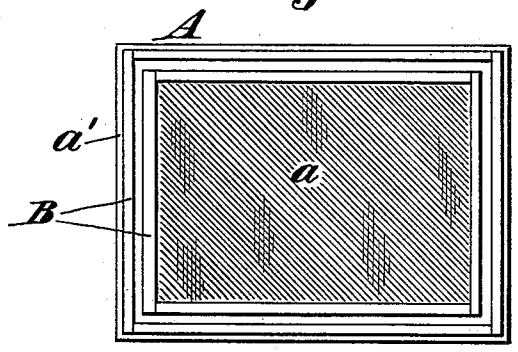


Fig. 13.



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UNITED STATES PATENT OFFICE.

ALFRED B. TRENNER, OF CINCINNATI, OHIO, ASSIGNOR TO THE NATIONAL FLY PAPER COMPANY, OF SAME PLACE.

STICKY FLY-PAPER.

SPECIFICATION forming part of Letters Patent No. 431,537, dated July 1, 1890.

Application filed March 8, 1890. Serial No. 343,153. (No specimens.)

To all whom it may concern:

Be it known that I, ALFRED B. TRENNER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Sticky Fly-Paper, of which the following is a specification.

My invention relates to that class of fly-paper in which one face thereof is coated with sticky fly-catching material and an uncoated margin or exposed portion left thereon, whereby the sheet may be handled or a number of them packed together in pairs or single sheets folded once with their sticky faces contiguous; and my invention consists in the provision of separable spacing elevations or strips of suitable thickness interposed in the margin between the two leaves of a once-folded sheet of sticky fly-paper, or each pair of sheets whose sticky-coated faces lie contiguous, all as hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a single sheet of sticky fly-paper, showing its coated surface with a surrounding raised edge or frame in the outer uncoated margin thereof; Fig. 2, a perspective view of a pair of sheets with their coated surfaces lying contiguous, the outer end of the upper sheet being turned upward to show the manner in which my marginal strip or raised edging for said said coated surfaces is placed on the lower sheet; Fig. 3, a cross-section on line x x, Fig. 1, showing a number of sheets piled horizontally one on top of the other, the respective pairs of sheets lying with their sticky-coated faces contiguous, a spacing and guard strip or elevation being interposed in the marginal edges between the sheets comprising each of said pairs; Fig. 4, a broken full-size cross-section of a pair of sheets with their sticky faces contiguous and showing the intermediate marginal guard-strips or elevations, the latter having their lower faces stuck to the lower sheet and their upper faces loose or free from the upper sheet, the heavy line in this view indicating the material for sticking said lower faces of the strips or elevations to said lower sheet; Fig. 5, a view similar to Fig. 4, but showing both faces of the marginal guard-strips or elevations stuck to both the upper and lower sheets; Fig. 6, a cross-section showing a folio or single sheet folded over once with my internal marginal guard-strip or elevation applied thereto; Fig. 7, a plan view showing my marginal guard-strip or elevation applied within the edges of a sheet, said edges being folded over on said strips or elevations on the sticky face of said sheet; Fig. 8, a perspective view of a pan containing the sticking-fluid in which one of the longitudinal edges of one of said guard-strips is being immersed prior to placing on the sheet; Fig. 9, a cross-section on line y y of the pan and strip shown in Fig. 8; Fig. 10, a broken perspective view of one corner of a sheet, showing the manner in which the marginal guard-strip, coated on its inner edge with adhesive material, as shown in Figs. 8 and 9, is stuck in place on the lower sheet ready for receiving the upper sheet; Fig. 11, a plan view showing the guard-strip or elevation in the form of sawdust or other granular substance; Fig. 12, a cross-section on line 1 1 of Fig. 11; and Fig. 13, a plan view of a modification, showing a double row of elevations around the sheet.

A represents a sheet of paper prepared and coated on one face, as usual, with sticky fly-catching material a, leaving a suitable uncoated or clear margin a' around the entire sheet, all as clearly shown in Figs. 1, 2, 7, 10, and 11.

B represents a narrow strip or elevation of any suitable material—such as straw-board, card-board, thick paper, fiber, saw-dust, sand, or the like—and of sufficient thickness to form a perceptibly-raised border around the edges of the sticky material in the said entire uncoated margin of the sheet. This strip or elevation forms both a spacing medium and guard in the uncoated margin when interposed between two sheets lying with their sticky faces contiguous, as clearly shown in Fig. 2. Both sheets of a pair are thus spaced so that a greater quantity of sticky material can be put on them, and when spread open for use they will of course be more service-

able, as the thicker the sheet is coated with sticky material the better its adaptation to quickly and positively entrap the prey. The strip or elevation in forming a guard or seal around the entire edge of said sticky material presents a closed border, which effectually prevents the escape of said sticky material from between the sheets or the admission of air to dry and harden it and thereby render it unfit for sale or use.

It is obvious that the marginal strip or elevation B may be secured or held in place between the sheets in any desirable manner and at a point directly adjacent the entire edge of said sticky material, or farther out (if desired) in the wide margin left uncoated for handling. In the drawings I have shown a number of ways, all of which I have found in practice to be efficacious.

In Figs. 1, 2, and 3 I have shown the surrounding elevation or strip nearly laid in place on the lower sheet without anything to stick or hold it there other than the outer edges of the sticky material *a*, which, under ordinary circumstances, is sufficient.

In Fig. 4 I have shown the lower face only of the strip or elevation stuck in place on the lower sheet by means of a material equally adhesive as or more adhesive than the sticky fly-catching material. I prefer to use a material more adhesive than said fly-catching material, and of such a nature or composition that it will not melt or become thin at an equal or ordinarily greater degree of heat that it requires to melt or thin said fly-catching material, thereby preserving the closed border intact at everything but extreme degrees of heat. I prefer, also, that said material for sticking the surrounding strip or elevation in place shall be of such a nature that it will not be affected by ordinary degrees of cold—such as the temperature by which said sticky fly-catching material is hardened—and thereby easily cracked, thus preserving the said closed border intact against everything but extremes of cold.

In Fig. 5 I have shown both the upper and lower faces of the surrounding strip or elevation stuck to the upper and lower sheets, respectively, by means of a material similar to that mentioned in connection with Fig. 4, thus providing a perfectly sealed or closed border, which forms a barrier to the egress of the sticky fly-catching material and the ingress of any drying or hardening medium to said sticky material.

In Fig. 6 the folio or once-folded sheet has a strip or elevation around three of its edges or margins, the fold therein furnishing the other barrier for the sticky material.

In Fig. 7 the folded edges have a guard-strip or elevation interposed between them and the face of the sheet. This strip or elevation is preferably stuck to their under faces, as shown, and thereby performs the above functions mentioned in connection with the pair of sheets shown in Fig. 5, where a perfectly-closed border is provided.

In manufacturing the paper I find that in order to produce the best results in the most convenient and economical manner one of the longitudinal edges of each section of the surrounding strip B, when made of straw or card board, is immersed or dipped about one-half of its width in the adhesive material used for sticking it in place to both sheets, as clearly shown in Figs. 8 and 9. The strips thus easily prepared are placed on the lower sheet with the adhesive-material-coated edges inward, as clearly shown in Fig. 10, thereby presenting a closed border on the inner edge of the entire surrounding strip when the upper sheet of the pair is placed thereon.

The nest or package of sheets shown in Fig. 3 illustrates the manner in which the pairs of sheets are arranged, one pair on top of the other, with the spacing and guard-strips or elevations interposed between the respective sheets of each pair. The weight of the sticky material is thus borne by the said strips, and its egress is effectually obviated, thereby preventing any of the sheets smearing the others on their outer faces or otherwise rendering the goods unsalable or unfit for use. It will be seen that a wide uncoated margin is provided between the outer edges of the strip or elevation B and those of the sheets, thus furnishing a clean surface in the parting of a pair of sheets, whereby the user can readily handle them in pulling them apart and spreading them out for the purpose intended.

In opening or parting a pair of sheets having the straw-board marginal strips stuck to both of them by means of any suitable material it is obvious that the said straw-board will readily split at its center or at any point, in fact, in its thickness, thereby obviating any liability of injury to the paper sheet by tearing or otherwise.

In Figs. 11 and 12 the elevation or strip B is composed of fine sawdust or other similar granular material, which is suitably stuck in place by means of a sticky substance like unto that hereinbefore described in connection with Figs. 4 and 5.

It is obvious that more than a single raised edge or elevation B can be used in the uncoated margin, as clearly shown in Fig. 13, wherein two surrounding guard-strips or elevations are present, thereby presenting an additional barrier against the egress of the sticky fly-catching material or the ingress of drying or hardening medium thereto.

What I claim is—

1. The combination, with a pair of sheets or leaves of sticky fly-paper, of separable spacing elevations or strips of suitable thickness interposed in the uncoated margin in one or more distinct rows between the two leaves of a once-folded sheet or each pair of sheets of said fly-paper whose sticky-coated

faces lie contiguous, substantially as herein set forth.

2. The combination, with a pair of sheets or leaves of sticky fly-paper having their sticky faces contiguous, of a separable guard-strip or elevation B, interposed between said sheets or leaves in their uncoated margins and stuck in place on one or both sides by means of a material equally adhesive as or more adhesive than the fly-catching material, substantially as herein set forth.

In testimony of which invention I have hereunto set my hand.

ALFRED B. TRENNER.

Witnesses:
JOHN E. JONES,
L. M. JONES.