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P. GREULING

2,264,875

INSECT CATCHING DEVICE

Filed Feb. 25, 1941



Fig. 1

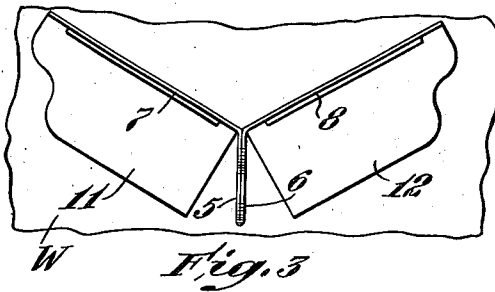


Fig. 3

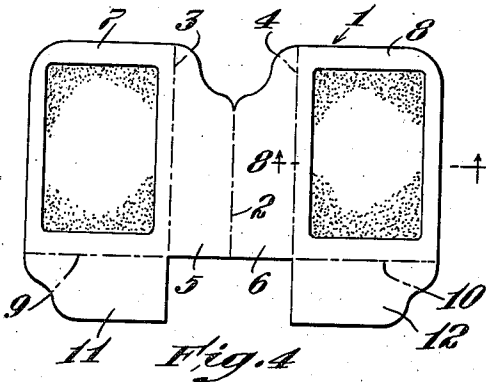


Fig. 4

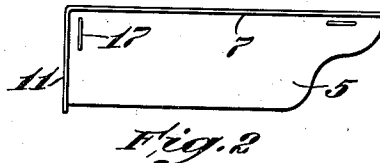


Fig. 2

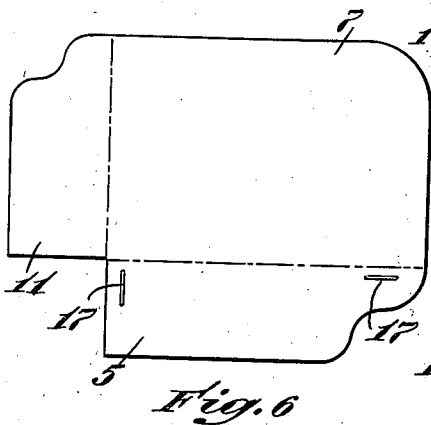


Fig. 6

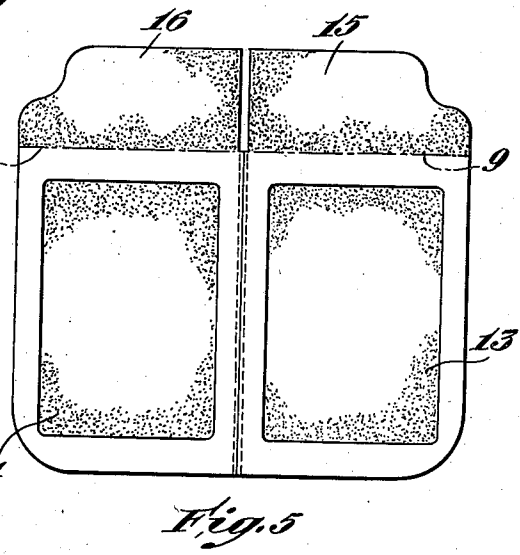


Fig. 5

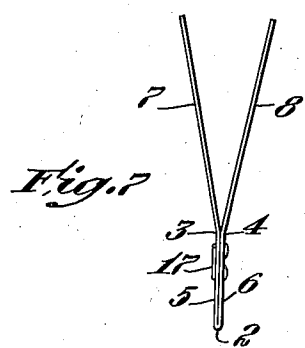


Fig. 7

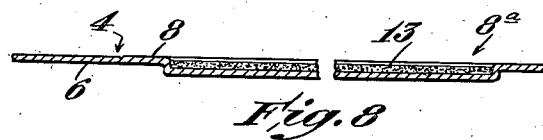


Fig. 8

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INSECT CATCHING DEVICE

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7 Claims. (Cl. 43—114)

This invention pertains to devices for catching insects and relates more particularly to a device having an adhesive surface or surfaces upon which flies or other insects are caught. Adhesively coated fly-catching paper, whether in the sheet form such as is commonly laid flat upon a table, shelf or other horizontal support, or in the form of a tape or ribbon designed to be suspended from an elevated support, for example a lighting fixture, is an extremely undesirable article except from a standpoint of its ability to entangle flies. It is very unsightly, particularly when covered with dead flies; it must be carefully handled to avoid soiling the fingers; in extremely warm weather the adhesive coating tends to flow and spoil adjacent objects; it occupies space desirable for other things;—articles of household use are often accidentally set down upon it; it is easily blown about by the wind and not infrequently comes into contact with the clothing or hair of occupants of the room; and when suspended from a lighting fixture or the like it may be grasped by mistake by a person intending to turn on the light.

The present invention has for its objects the provision of adhesive fly-catching means so supported as substantially to avoid all of the disadvantages incident to the use of ordinary sticky fly paper, in particular to provide an adhesive surface combined with means operative to support it out of the range of direct vision of the occupants of the room; to provide a fly-catching device which may readily be temporarily attached to any convenient vertical surface without marring or disfiguring the latter, and without recourse to the use of tacks, pins or other metallic fasteners; to provide a fly-catching device which, when it has served its purpose may readily be removed and disposed of without danger of soiling the hands or clothing; to provide supporting means for the adhesive surface so devised as to provide extended areas readily available for ornamentation or the reception of advertising matter; and to provide a fly-catching device of simple construction which may be made cheaply and which adequately performs its principal function as a device for catching insects.

In the accompanying drawing one desirable embodiment of the invention has been illustrated by way of example,

Fig. 1 being a front elevation, to small scale, of the device as it appears in use;

Fig. 2 being a side elevation of the device shown in Fig. 1;

Fig. 3 being a front elevation showing the device set up in a slightly different way for use;

Fig. 4 being a plan view of a sheet material blank useful in making the device;

Fig. 5 being a plan view of the device in its completed form with the adhesive applied thereto;

Fig. 6 being a side elevation of the device as it appears when in readiness for shipment or storage;

Fig. 7 being a front edge elevation of the device of Fig. 6 showing how the adhesively coated wings may be separated preparatory to use, as well as illustrating how they may again be closed together after use and preparatory to disposal of the device; and

Fig. 8 being a fragmentary section to larger scale on the line 8—8 of Fig. 4.

Referring to the drawing the numeral 1 (Fig. 4) indicates a unitary piece of stiff sheet material, for example cardboard, of a shape useful in making a device embodying the present invention, it being understood, however, that the device may be of other contours than that here illustrated without departing from the spirit of the invention. As shown in Fig. 4, the blank 1 is of roughly rectangular contour and has the front-to-rear fold line 2 midway between its lateral edges. Spaced from this fold line 2, at the right and left thereof, are two other front-to-rear fold lines 3 and 4 respectively, the fold lines 2, 3 and 4 defining web members 5 and 6. Integrally joined to these web members 5 and 6 along the lines 3 and 4, respectively, are the wing members 7 and 8, these wing members collectively providing the shelf-like surface upon which the fly-catching adhesive is spread.

The rear edges of the wings 7 and 8 are defined by fold lines 9 and 10 extending transversely of the device. Flaps 11 and 12 are integrally united to the wings 7 and 8 along these fold lines 9 and 10, and these flaps, together with the web members constitute bracket means for supporting the shelf-like wings when the device is in use.

Preferably, before the device is shipped to the user, the material forming the device is folded along the line 2 so that the web members 5 and 6 are caused to lie in parallel planes and substantially in contact, thus providing a two-ply stiffening web or brace, the plies of which are preferably permanently united, as for example by means of adhesive, or as here shown by means of metallic fasteners such as the staples 17. Either before or after the web members have thus

been united, the upper surfaces of the wings 7 and 8 and of the flaps 11 and 12 are coated with adhesive. Preferably in order that the fly-catching adhesive applied to the wings 7 and 8 may not tend to run off if it becomes very fluent in hot weather, the central portions of the wings 7 and 8 are downwardly embossed, as shown at 8^a in Fig. 8, so as to provide shallow receptacles for layers 13 and 14 respectively of the fly-catching adhesive. This adhesive may be of the type commonly employed for such purposes, being applied as a coating to the surface of each wing and when in use being sufficiently sticky at normal room temperature to entangle insects which alight thereon.

The flaps 11 and 12 are coated with adhesive as shown at 15 and 16, this adhesive being of a kind different from that employed for catching flies in respect to the fact that while it is or may be sufficiently tacky or sticky to secure the device to a vertical wall or other surface when pressed against the latter, it may readily be peeled away from the wall surface without marring the latter or leaving any appreciable quantity of the adhesive adherent to the wall surface. Preparations of rubber latex are useful for the purpose. Desirably such preparations have a degree of tackiness similar to that of the material commonly sold under the name of Scotch tape. While a coating of ordinary rubber latex is useful and will function properly for the purpose, it is contemplated that other materials, for example highly plasticized preparations of some of the synthetic resins or cellulose derivatives may be employed for the purpose.

Since the outer surfaces of the wings 7 and 8 and of the web members 5 and 6 are not coated with adhesive these surfaces provide for the application of decorative features if desired, for example these surfaces may be gilded or silvered or imprinted with floral or other ornamental effects, or these surfaces may alternatively be employed for the reception of advertising media, it being contemplated that if these surfaces be employed for this latter purpose, the article as a whole may be employed as an advertising device and, for example, may be given away by the advertiser and without cost to the user.

After the surfaces of the wings 7 and 8 and of the flaps 11 and 12, have been coated with adhesive, and assuming that the outside surfaces of the device have been decorated or otherwise finished, the wings 7 and 8 may be brought into contact and the flaps 7 and 8 may likewise be brought into contact as illustrated in Fig. 6 so that the adhesive surfaces are completely protected in readiness for shipment and storage. When the device is to be used the wings 7 and 8 are peeled away from each other, being swung apart about the fold lines 3 and 4, and the flaps 11 and 12 are also separated and bent downwardly along the fold lines 9 and 10, respectively, so as to form right-dihedral angles with the wings 7 and 8 respectively. In bending the wings 7 and 8 about the fold lines 3 and 4, they may be swung down so that the wings 7 and 8 lie in substantially the same plane (Fig. 1) to form an extended horizontal shelf, in which event they are perpendicular to the web members 5 and 6, respectively, or the wings 7 and 8 may be bent only so much that they diverge from each other at some angle less than 180° (Fig. 3). Having prepared the device in this way for use, the adhesive coatings of the flaps 11 and 12 may be pressed against any desired surface, for example the

vertical surface of a wall W, and since these coatings are tacky, the device will adhere to the wall sufficiently to retain it in position during use. Preferably the device is mounted against the wall at such an elevation that the adhesive surface is above the level of the eye of the occupant of the room so that some of the most objectionable features of the ordinary adhesive fly paper are thus obviated. When in this position the outer surfaces of the device are exposed to view, and if supplied with advertising media exhibit the latter advantageously. When mounted in this position the rear edges of the combined web members 5 and 6 engage the wall surface and as these web members extend forwardly toward the front edges of the wings they act as a brace to stiffen the wings and to prevent the latter from sagging during the use of the device.

After the device has been in use for a sufficient time it may readily be removed from the wall merely by seizing the combined web members and pulling it away from the wall,—the adhesive which is used on the flaps 11 and 12 being of a nature which permits such ready removal. The operator then merely swings the wings 7 and 8 upwardly toward each other by engagement of his fingers with their outer surfaces, thus causing their adhesive surfaces with the entrapped flies to come into contact so that the adhesive is wholly enclosed and cannot come in contact with other articles. The rear flaps 11 and 12 may also be closed against each other, the device now appearing as shown in Fig. 6 and being readily disposed of without danger that it will damage other articles.

While in a preferred arrangement the flaps 11 and 12 are designed to be turned downwardly during use, it is contemplated that they may be turned upwardly and that in that event those surfaces, opposite to those here shown as adhesively coated, will be provided with the supporting adhesive.

Furthermore, while as here shown the device is made from a single integral piece of sheet material, it is obvious that it might readily be made from two like pieces of material which would be assembled with the portions 5 and 6 placed in registry with each other and united, by means of adhesive or staples as above described, to provide a multi-ply web portion. Other and obvious modifications in shape and construction, as well as the materials employed, and such as fall within the terms of the appended claims, are to be regarded as falling within the scope of the invention.

I claim:

1. An insect-catching device comprising an integral piece of sheet material having a shelf portion whose upper surface carries a coating of fly-catching adhesive, a rear flap which is substantially vertical when in operative position and whose rear surface has a coating of normally tacky adhesive for temporarily securing the device to a vertical surface, and a web portion below the shelf portion and which extends from rear to front and which is substantially perpendicular to the plane of said flaps when the device is in use.

2. A fly-catching device consisting of stiff sheet material doubled upon itself along a front-to-rear fold line to form a two-ply vertical web portion, means uniting the constituent plies of said web portion, a wing extending horizontally from the upper edge of each of said plies, and a flap extending vertically down from the rear edge of

each wing, a coating of permanently tacky adhesive on the rear surface of each flap, and a coating of fly-catching adhesive on the upper surface of each wing, the wings being foldable along their lines of union with the web-plies thereby to permit the adhesively coated surfaces to be brought into contact.

3. A device for catching insects, comprising a piece of stiff sheet material having front-to-rear fold lines defining two wings which may be folded into contact, the upper surface of each wing having a shallow cavity for the reception of fly-catching adhesive, each wing having a rearward extension united to the wing proper along a transverse line of fold, one surface of each such rearward extension having a coating of an adhesive operative temporarily to secure such extension to a wall or other vertical surface, each extension when the device is in use being disposed in a plane at right angles to the plane of the respective wing to which it is attached.

4. A device for catching insects, comprising a piece of stiff sheet material having front-to-rear fold lines defining two wings which may be folded into contact, the upper surface of each wing having a shallow cavity for the reception of fly-catching adhesive, each wing having a rearward extension united to the wing proper along a transverse line of fold, one surface of each such rearward extension having a coating of an adhesive operative temporarily to secure such extension to a wall or other vertical surface, each extension, when the device is in use, being disposed in a plane at right angles to the plane of the respective wing to which it is attached, and a web member united to each wing along said front-to-rear lines of fold respectively, each web member, when the device is in operative position, being disposed in a plane at right angles to the wall.

5. A device for catching insects, comprising a shelf portion of a stiff sheet material comprising two wings each having a surface coated with

insect-catching adhesive and means so uniting the wings as to permit them to be folded for shipment with the adhesively coated surfaces in contact, and supporting means which is disposed in the planes of the wings when the device is folded for shipment, said supporting means being operative to support the wings after they have been unfolded so that they make dihedral angles with the wall of a room or other vertical surface, said supporting means comprising a part having an adhesive surface operative by contact with said room wall temporarily to secure the device to said wall, and a part operative to act as a reinforcement to reduce the tendency of the wing portions to sag when the device is in use.

6. A device for catching insects, comprising a shelf portion of a stiff sheet material having a coating of insect-catching adhesive upon its upper surface, and bracket means operative to support said shelf portion so that the latter makes a right-dihedral angle with the wall of a room or other vertical surface, said bracket means having an adhesive surface operative by contact with said room wall temporarily to secure the device to said wall, the bracket means also comprising a web portion of substantial vertical depth constituting a brace for the shelf portion.

7. A blank for use in making a device for catching insects, said blank consisting of a unitary piece of stiff sheet material having a front-to-rear fold line midway between its lateral edges, and other front-to-rear fold lines spaced laterally to the right and left respectively of said middle fold line thereby defining web members, a wing portion united to each web member along said right and left fold lines, respectively, and a flap integrally united to the rear edge of each wing along a transverse fold line, the upper surface of each wing having a central depressed area designed to receive a body of fly-catching adhesive.

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