

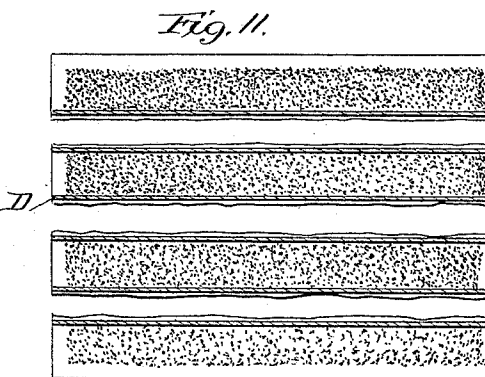
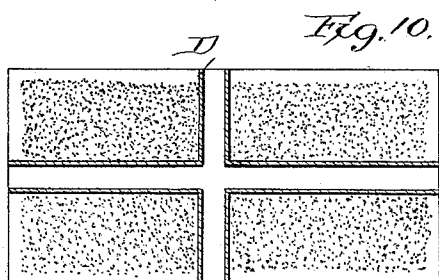
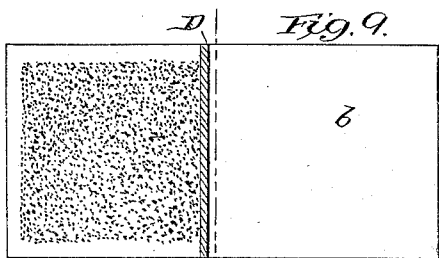
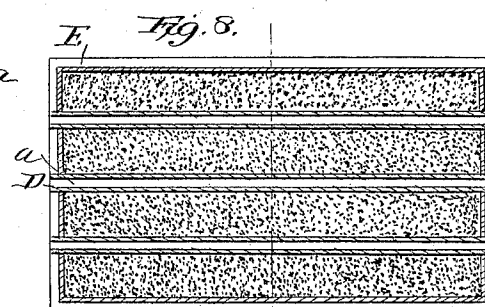
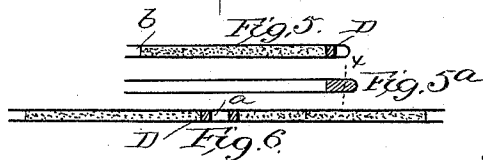
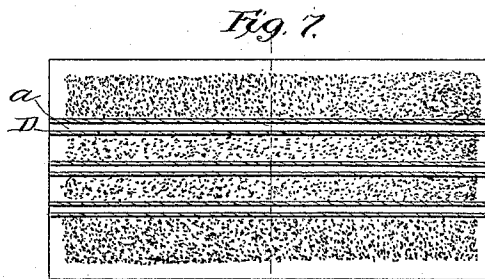
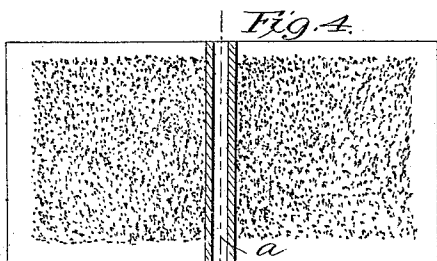
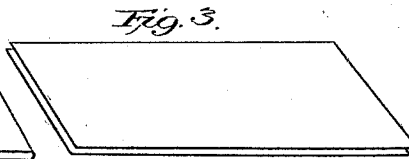
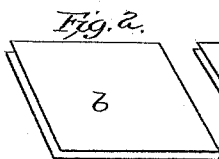
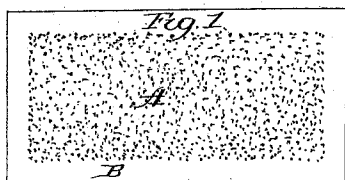
(No Model.)

2 Sheets—Sheet 1.

O. & W. THUM.
STICKY FLY PAPER.

No. 466,637.

Patented Jan. 5, 1892.



Attest
W. Allen
W. Allen

Inventors
Otto Thum
William Thum
by *W. Allen*
ATTY.

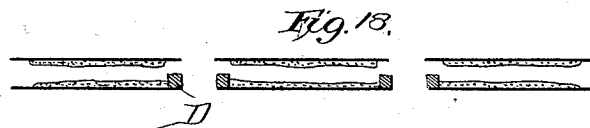
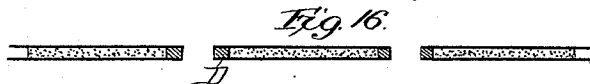
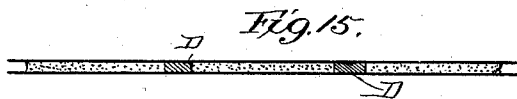
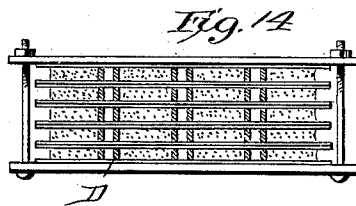
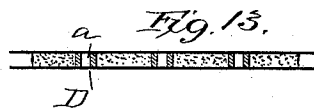
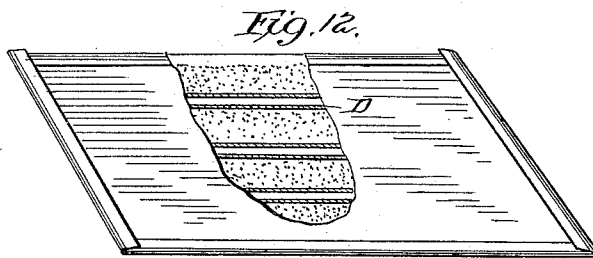
(No Model.)

2 Sheets—Sheet 2.

O. & W. THUM.
STICKY FLY PAPER.

No. 466,637.

Patented Jan. 5, 1892.



Attest
William Thum
W. Thum

Inventors
Otto Thum
William Thum
by *Wm. Spar*
ATTY.

UNITED STATES PATENT OFFICE.

OTTO THUM AND WILLIAM THUM, OF GRAND RAPIDS, MICHIGAN.

STICKY FLY-PAPER.

SPECIFICATION forming part of Letters Patent No. 466,637, dated January 5, 1892.

Application filed August 3, 1891. Serial No. 401,497. (No model.)

To all whom it may concern:

Be it known that we, OTTO THUM and WILLIAM THUM, citizens of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Sticky Fly-Paper, of which the following is a specification.

Consumers of sticky fly-paper often find it desirable to use small sections of sheets or less than a whole sheet in different places; but as this paper is now manufactured it is impracticable to use any portion of the sheet independently, for the reason that in order to divide a sheet into small pieces or sections it would be necessary to cut through the sticky material, which would thus leave the sticky material immediately along the line of the newly-cut edge, over which it would run in a very short time onto the underlying object.

It is the object of our invention to provide a sheet of sticky fly-paper which may be used as a whole or be divided up into any number of sections of any convenient shape without exposing a sticky edge or margin directly on the line of division over which the material would at once begin to flow. Incidentally we also provide for the convenient separation of the sheets into various parts without penetrating the sticky material.

The invention may be applied to any of the well-known forms of sticky fly-paper, whether two independent sheets placed face to face or a single sheet folded in the center.

The invention consists, broadly, of sticky fly-paper having a space or spaces of intermission on the surface of the sheet through the catching material, said space or spaces being protected against the ingress of the catching material by the use of suitable barring strips. Said spaces serve to mark the lines of separation and provide at the same time an uncoated margin along the cut or line of division.

In the accompanying drawings, Figure 1 is a plan view of an ordinary sheet of fly-paper. Fig. 2 represents the same folded. Fig. 3 shows two sheets face to face. Fig. 4 represents the sheet shown in Fig. 1 as having applied thereto our improvement. Figs. 5 and 6 are sections of Figs. 2 and 3, showing our improvement applied thereto. Fig. 5^a is a

modification of Fig. 5. Figs. 7, 8, 9, and 10 represent modifications showing different ways of extending the divisional lines or spaces, Fig. 8 being similar to Fig. 7, with the exception that it has a confining-border about the entire sheet. Fig. 11 is the same as Fig. 7, excepting that it is shown with the sections after their separation. Fig. 12 shows the invention applied to that form of sticky fly-paper in which the margins of the sheets are folded to confine the sticky material. Fig. 13 is a section through two sheets of Fig. 7, placed face to face. Fig. 14 represents a number of sheets placed together embodying our invention, held within a suitable clamp-frame. Fig. 15 is a sectional view of a modification. Fig. 16 is a like view showing the sheets divided into sections. Fig. 17 is a like view showing the facing-leaf of each section separated. Fig. 18 is a view similar to Fig. 17, excepting that the confining-strip is not shown as separable in its thickness, as in the latter figure.

It will be understood that as our invention refers to the intermission of lines or spaces through the surface of the sticky material, so that the sheets may, if desired, be used in small sections, we do not limit ourselves as to other details of the arrangement or the construction of the sheets, as our invention may be applied without regard to these matters.

In the drawings, A in Fig. 1 shows the sticky or catching material, and B the uncoated margin, and this sheet must be used entire for the reason that if it is cut in any way it must be severed through the sticky material, and this is not only difficult in view of the sticky nature of the material, but it is impracticable, for the reason that there is nothing then to prevent the sticky material on the line of the cut from flowing over the edge onto the underlying objects. We take the sheet and extend through the center, as in Fig. 4, or in parallel lines, as in Figs. 7 and 8, or in lines crossing each other, as in Fig. 10, strips D, which are shown in Figs. 5, 6, and 13, extending from one surface to the other of the portion of the sheets in contact, and thus prevent the flow of the material to the clean space *a*, which is left between the strips. In the case of the folded sheet, as in Figs. 2, 5, and 9, a single strip D is sufficient,

and when the upper leaf *b* is folded over on the bottom leaf this strip *D* serves as a barrier between the two leaves. The confining-strip may cover the divisional space entirely, as in Fig. 5^a, the sections being cut on the line *x*, and the facing-leaves may then be separated from each other by pulling them apart, in which case the strip may divide in its thickness or adhere entirely to one of the facing-leaves. It will thus be seen that in case, for instance, it is desired to divide the sheet shown in Fig. 4 this sheet may be severed along the dotted line and two sheets thereby formed. There is no danger of the escape of the sticky material by reason of the cut, as the strips *D* have served to maintain a clear space between the lines of the cut and the edge of the catching material while the paper has been in stock, and when it is separated into sheets this clean margin, whether the strip adheres to it or not, is sufficient to retard the material from running over the cut edge.

In the form shown in Fig. 5 the sheets may be severed at the back, where a clean portion is left, and each of the severed parts used independently of the other; but instead of simply dividing the sheets, as shown in the figures mentioned, they may be divided into long strips, as shown in Figs. 7 and 8, or into smaller sections, as shown in Fig. 10, or in many other shapes or sizes. The entire margin of the sheet, as in Fig. 8, may have a confining-border *E* around the outside edge of the material while the sheet is kept in stock.

Instead of providing two barring-strips with a space between them, we may, as in Fig. 15, make these strips of sufficient width as to require the use of a single strip at each line of separation, and to make it of such material as to permit the sheet or sheets to be divided into sections by cutting through the center of this strip, as shown in Fig. 16, and after this is done the parts of each divided section may be separated from each other, as in Fig. 17, and the divisional strip, if it is separable in

its thickness, will divide, as shown in Fig. 17, thus forming a barrier for each section while in use, or, as in Fig. 18, if it is not separable in its thickness, it will form a barrier for the sections to which it more firmly adheres, while the margin of the other sections will be left clear from the sticky material, and thus act to retard its running over the cut.

We do not wish to confine ourselves to any particular form of confining-border, nor to any one material for making the same, nor to material which will separate in its thickness when the facing-leaves are separated. For instance, strips of card-board or paper may be cemented to either one or both of the facing-strips or wax or granules may be deposited about the sticky material, the essential feature being that the sheets be provided with confining-strips of some kind which will keep the divisional spaces free from sticky material while the paper is kept in stock.

We claim as our invention—

1. A sheet of sticky fly-paper provided with an intermissional space or spaces through the catching material protected by a barring strip or strips, substantially as described.

2. A sheet of sticky fly-paper having the catching material divided into sections, each of said sections being formed by a strip or strips, substantially as described.

3. A sheet of sticky fly-paper having intermissional spaces, each of said intermissional spaces being formed by a separable strip or strips, substantially as described.

4. A sheet of sticky fly-paper having intermissional spaces, each of said spaces being formed by a strip or strips separable in their width, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

OTTO THUM.
WILLIAM THUM.

Witnesses:

FREDERICK LOETTGERT,
FERDINAND THUM.