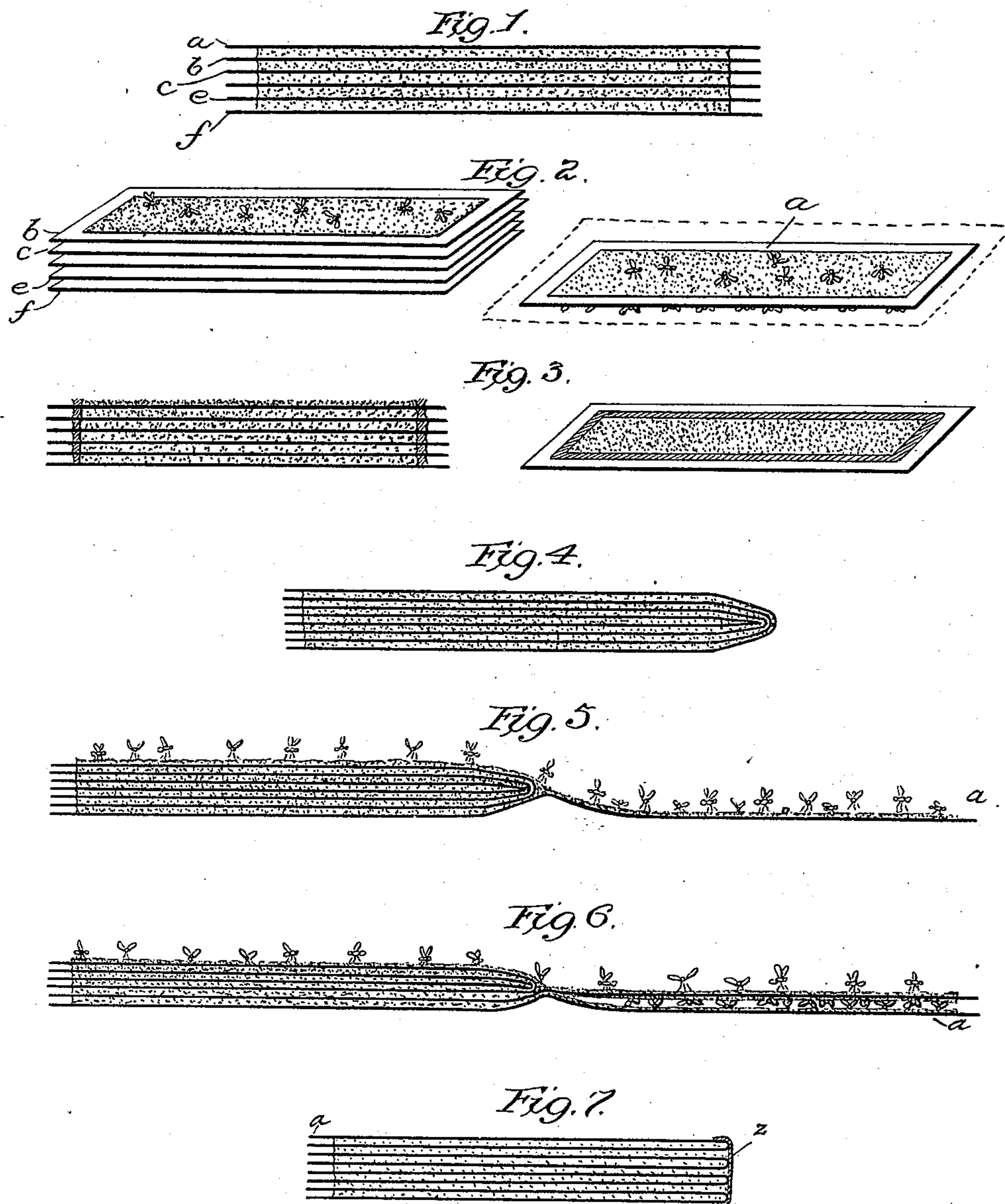


(No Model.)

O. & W. THUM.
BOOK OF STICKY FLY PAPER.

No. 486,138.

Patented Nov. 15, 1892.



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UNITED STATES PATENT OFFICE.

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

BOOK OF STICKY FLY-PAPER.

SPECIFICATION forming part of Letters Patent No. 486,138, dated November 15, 1892.

Application filed May 14, 1891. Serial No. 392,687. (No specimens.)

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 Fly-Paper, of which the following is a specification.

What is known as "sticky fly-paper," as heretofore put upon the market, has consisted of sheets of paper coated upon one side with an adhesive material. Although these sheets are put in the form of packages, with a number of sheets laid one upon the other to form such package, the sheets are independent of each other and of the package and are designed to be used separately. The sheets are all smeared on one side only with the adhesive material, and in packing either two are laid with the smeared faces in contact or each sheet is so folded, and thus the unsmeared backs only are exposed. The pairs of sheets thus arranged are laid together with the unsmeared backs in contact and form in sufficient numbers the ordinary package. With this arrangement and construction of sheets and packages only half the surface of the paper is utilized for the entrapping of the insects, and the arrangement also requires that a good quality of paper shall be used to prevent the adhesive material from oozing through the paper. This, while it would not pass through the paper in sufficient quantity to form a practically-adhesive surface, is sufficient to cause the sheets to adhere and render them impracticable to handle.

Our invention consists of a package or book composed of sheets of sticky fly-paper laid one upon the other, with both faces smeared, but with unsmeared margins and covers. The unsmeared margins may be taken hold of in order to turn the leaves, and in using the book it may be laid upon the table or any other support, resting upon one side of the cover, which is unsmeared on the outside. The upper cover or outside leaf is then opened or laid back. The inside of this being smeared, as well as the exposed page of the opposite leaf, two pages (twice the book area) are exposed, both affording fly-catching surfaces. As soon as these are covered with flies or become too dry for effective use the second

leaf is laid over from the book to the cover in the same manner as the leaf of any ordinary book is turned. Thus the previously exposed and used page of the cover or outside leaf is covered by the turning down thereon of the previously exposed and used page of the next leaf, while the two new pages are exposed. The book or pack is thus capable of being turned in order. We have hereinafter shown different forms of these books or packs, which are illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of a series of single sheets coated in accordance with our invention. Fig. 2 illustrates the use of these sheets. Fig. 3 is a like view as Fig. 2, excepting that the sheets are shown with a confining-border around the sticky material. Fig. 4 shows the invention applied to the folded form of sheets. Fig. 5 shows the form of paper of Fig. 4 in use. Fig. 6 shows the further use of this form. Fig. 7 represents another way of folding the sheets.

In Fig. 1 we have shown independent sheets of fly-paper arranged in series one upon the other. The lower sheet (indicated at *f*) and the upper sheet *a* are preferably composed of the paper ordinarily used for fly-paper, as it must be free from holes, so as to avoid the sticky material passing through its thickness to the outer uncoated surfaces. Sheet *f* is coated on one side. Upon this is laid the sheet *e*, which is coated upon both of its faces, and upon this is laid another and another coated in like manner upon both faces until a suitable number has been provided, the upper sheet of the series being laid upon the sticky surface of the last sheet and having its under surface coated, its upper surface being free from the catching material and preferably composed of a superior grade of paper, as stated above. In the use of paper thus prepared the upper sheet *a* is separated from the series and laid upon another surface upon its uncoated face, and thus there is exposed the coated surface of *a* and the upper coated surface of the next sheet *b*. As soon as the exposed surfaces have become covered with flies or the moisture of the sticky material has evaporated to such an extent that the flies will not be caught thereby the sheet *a* may be thrown away and the sheet *b* sepa-

rated and laid with its upper face upon a supporting-surface, as by this time the sticky material has hardened to such an extent and is so covered by flies that there is no danger of the material adhering to the underlying supporting-surface; but in order to guard against this it may be laid upon a sheet of paper, as shown in dotted lines in Fig. 2. After the sheet *b* is removed its under surface and the upper surface of *c* are exposed, and this is continued until the supply of sheets is exhausted. Thus it will be seen that we secure double the catching-surface, and as the intermediate sheets may be laid upon a sheet of paper or in succession upon the surface of the sheet *a*, which has been used, the paper of which these interposed sheets are composed may be of very inferior quality, as the presence of small holes through it will not in any wise affect the utility of the sheet. It will be understood that the sheets as thus coated may be used in very simple form, as in Fig. 1, or each sheet may be provided with a confining-border to prevent the flow of the sticky material to the clean margins of the sheet either as shown in Fig. 3 or by the use of any well-known or improved form of border, and in transportation and storage any known or improved means may be provided for preventing the material from passing to the clean margins.

In Fig. 4 we have shown the invention as

applied to folded sheets, and in this form the sheets are arranged as the leaves of a book, the outside covers being coated only on their inner faces, but the interposed leaves being coated upon both faces and adapted to be used as in Figs. 5 and 6; but after the cover *a* is turned back each leaf, comprising two sides, may be removed as soon as both faces have been utilized.

We have shown in Fig. 7 a modified form of package, each sheet being folded and coated upon both faces, except the top and bottom leaves, a suitable binding being provided for the folded side, this binding being shown at *z* and serving as a seal in this form to prevent the escape of the catching material from between adjacent leaves at the back of the package.

We claim as our invention—

A pack or book of sticky fly-paper, composed of interior sheets smeared on both sides and having unsmeared margins and having the outside sheets or covers also unsmeared, substantially as described.

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

OTTO THUM.
WILLIAM THUM.

Witnesses:

FREDK. LOETTERT,
MARGARET R. CLARK.