

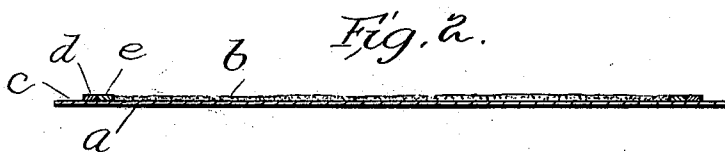
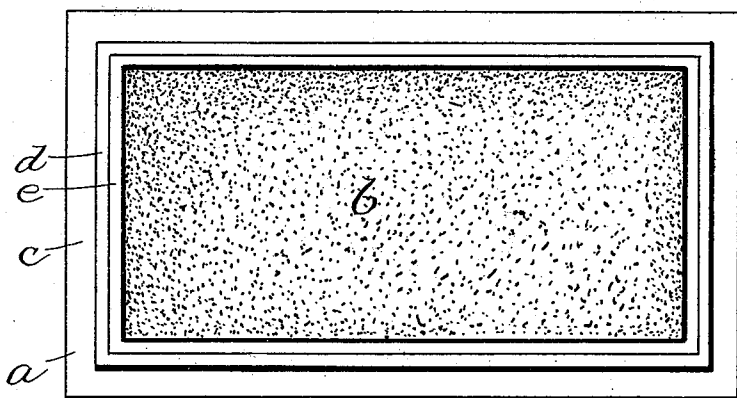
(No Model.)

O. & W. THUM.
STICKY FLY PAPER.

No. 510,727.

Patented Dec. 12, 1893.

Fig. 1.



Attest
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UNITED STATES PATENT OFFICE.

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

STICKY FLY-PAPER.

SPECIFICATION forming part of Letters Patent No. 510,727, dated December 12, 1893.

Application filed January 19, 1893. Serial No. 458,986. (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 Sticky Fly-Paper, of which the following is a specification.

Our invention relates to sealed sticky fly paper, of that class in which the sticky or catching material is surrounded and confined by a border such as is shown in Letters Patent of the United States granted to Otto Thum, No. 278,294 and No. 466,199, and others.

The various confining borders now known serve the purpose for which they are intended yet they are open to objections such as the following: The confining borders made of a hard and slightly adhesive material are liable to crack and loosen from the leaves of the paper during transportation and handling; in those made of paper or like material an imperfect joint will permit of the egress of the catching material to the uncoated margin or edge of the paper; those made of a very tough, pliable and sticky substance require much force to open, and they are very apt to cause the paper to tear, and in addition, this kind of border, not being a solid substance, is liable to flow onto the uncoated margin when conditions are favorable, and those made of granular material embedded in the margin of the catching material are apt to partially dry and toughen during storage, and cement the leaves together too tightly for separation; this is due to the fact that the catching material which interposes between the granules has drying properties.

In order to secure the advantages of these various confining borders, and at the same time to obviate as far as possible the disadvantages enumerated, we provide a compound border of approximately the same width as the border now used, but instead of making this border of one material throughout, we utilize two of the confining border materials just described. We preferably employ a solid slightly adhesive material for the outer portion of the compound border, and a tough sticky material for the inner portion.

We do not, however, desire to limit ourselves as to the relative location of the parts

of the border, as they may be reversed in position, though not with so good an effect, yet without departing from the spirit of our invention, which consists of a confining border for paper of a compound nature, one part of the border being composed of a tough sticky substance, and the other part of a solid material, which permits the easy separation of the leaves, as wax or thin paper strips or the like.

Figure 1, represents a plan view of a sheet of fly-paper embodying our invention. Fig. 2, is a sectional view of the same.

It will be understood that our invention may be applied to two sheets placed face to face, or to a folded sheet, these being the two forms generally in use.

We also desire to be understood that the improved compound border may be made of such material as to permit of the separation of the sheets retaining a part of one or both borders on two sheets, or wholly on one sheet, as may be found desirable; that is the border may be separable in its thickness so as to leave a portion of the confining border or dam on each sheet; or one part of the border may be thus separable and the other part be adapted to adhere entirely to one sheet. These features of the borders have been heretofore known.

In the drawings, the sheets of paper are represented at *a*, and preferably are provided with a central catching surface *b* and an uncoated margin *c*, while our improved border is represented at *d*, *e*. The inner part of the compound border is shown at *e*, while the outer part is indicated at *d*, and the width of the border is preferably equal to the width of the sealing borders as ordinarily used, and as composed of one material. This will give the arrangement of the parts of the border as shown, this arrangement being preferably an inner tough and sticky border of a width equal to one-half of the width of the ordinary border, and an outer solid border equal to the width of the inner border. The outer portion of the border requires no appreciable force to open it, and the inner part of the border requires but one-half of the force to open it that is required by a border of the usual width which is wholly composed of similar material, and it will thus be seen that a more ready

separation of the sheets is permitted. The solid outer portion of the compound border protects the inner sticky portion against the drying action of the air and it thus retains its stickiness and pliability longer and better serves the purpose of a safety strip, as hereinafter described; further than this, the outer solid portion of the border prevents spreading of the inner adhesive part, and in case the solid portion is broken or defective, the material of the inner portion will fill up the break and make the seal intact, thus acting as a safety strip. The inner portion will on account of its tenacity, not flow through any small opening in the outer or solid portion of the confining border, but only close it up and prevent the escape of the catching material.

It must be understood that the inner portion of the compound border would not serve for the body of the sheet, as it is of much firmer consistency than is practical for the

ordinary catching material. This inner portion of the compound border may be made of many different mixtures, but we have obtained good results from the use of a mixture of paraffine, castor oil and rosin.

What we claim is—

In combination with a sheet of sticky fly paper, a confining border composed through- out of two parts, the part on one side being of a tough sticky substance, and the part on the other side being composed of a more solid substance, the two parts being in contact and forming one border, substantially as described.

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

OTTO THUM.
WILLIAM THUM.

Witnesses:

FREDK. LOETTIGAT,
FERD. DUNNEBACKE.