A RAPID METHOD FOR MAKING TEMPORARY INSECT LABELS IN THE FIELD[1]

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One of the things that makes curators of entomological collections most unhappy is the receipt of specimens with inadequate or otherwise poor field data. At the time and place of collection, specimens must be somehow preserved and stored for transportation to the laboratory, and it is imperative that, whatever the method of such temporary storage, the minimum essential information regarding collection be inseparably attached to the specimens.

Many specimens may be placed together in a vial or jar of alcohol into which is also put an indelible label giving the usual locality, date and collector information and perhaps comments on ecology, etc., of the insects. Another widely used method of grouping specimens is spreading them between layers of cellucotton which are kept within a paper wrapper on which are recorded the field data. But for many kinds of insects, notably the Lepidoptera, these storage methods are not usually acceptable, as they result in too much damage to the individual specimen. This means that lepidopterists and certain others must package their specimens singly or only a few per container; and that in turn means the field data must be applied again and again, once to each packet, envelope or folded paper triangle.

This time consuming activity has been avoided by various entomologists in various ways. One resorts to rapid, longhand scribbling of the data, which is bad enough, but another scribbles only abbreviations, which often defy subsequent deciphering even by their author. A third entomologist, thinking himself extremely neat and methodical, enters a clearly penned code number on the triangle or envelope. Museums are filled up with packaged specimens bearing only such cryptic numbers because the curator has no means by which to "break" the code.

If minimum collection data are to be placed rapidly on every insect container, in the field, some mechanical device to facilitate the work is clearly indicated. Printing with set type is one obvious solution to the problem. If one knows where and about when he will be doing his collecting, he may have labels printed on his containers in advance, perhaps leaving certain blanks to be filled in with variable details of information. This system has the disadvantages of being expensive and requiring considerable advance planning. Hand set rubber type has been used by a few entomologists. In this case, one has the problem of providing enough pieces of type to allow spelling of all required place names and other data; hand setting in the field also consumes

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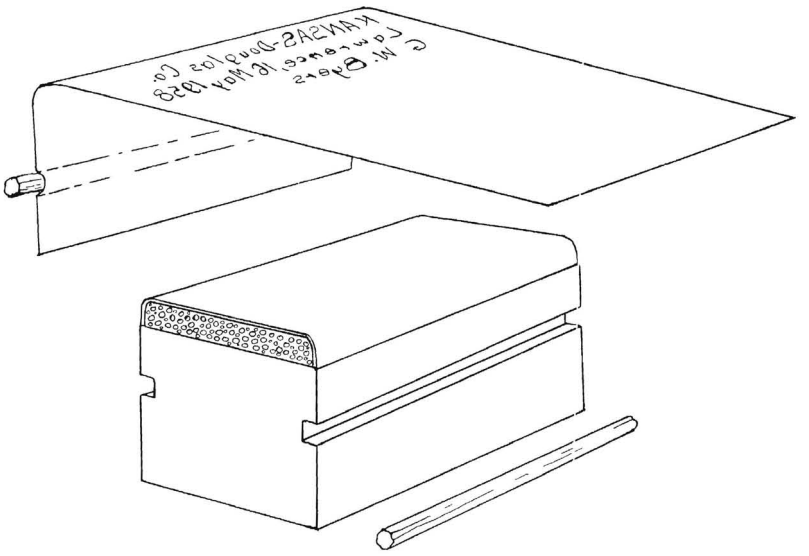

An inexpensive device for rapid printing of temporary insect labels in the field.

a lot of time. There are probably many other ways to meet this problem, but the following is one I have found easy, rapid, inexpensive and quite satisfactory in all ways.

This might be called a pocket sized mimeograph, as it operates in essentially the same way as a standard mimeograph machine. The device consists of a wooden block for convenience in handling, a piece of soft flannel cloth to hold the ink, a layer of rubber or synthetic plastic sponge interposed between the block and the cloth to give an even impression, and a stencil held in place over the inked cloth (see figure). The wooden block may be cut to whatever dimensions are required but should be about an inch thick so that it may be securely grasped. It is slotted or grooved by a saw cut about one-eighth of an inch wide and of equal depth along two sides, to allow the stencil to be crimped into a fixed position. About a one-eighth inch thickness of sponge is adequate. This should be attached to both the block and the cloth with ordinary glue, as plastic cements will dissolve the sponge. Canton flannel, such as is used for infants' gowns, is a good kind of cloth to use and is quite thick enough to hold the necessary ink for a hundred or more impressions.

The stencils are cut to the appropriate size from ordinary mimeograph stencil sheets. They should be slightly wider than the inked surface to prevent seepage of ink around the stencil .When cutting stencils, I cut also the stiff paper backing, which is then kept interleaved between stencil sheets, preventing them from becoming crumpled when carried in the field kit. While

a usable inscription can be cut with a fine tipped stylus using only the stiff paper as a backing, I have obtained better results when the stencil is backed by a small square of plastic sheet having a very slightly rough, rather fabric-like surface. It hardly need be mentioned that the inscription should be so spaced on the stencil that it will not exceed the inked surface and that there will be free ends remaining for fixing the stencil in position on the block.

To use the labelling device, one first applies a small amount of mimeograph ink (experience will soon show just how much) to the flannel and spreads it evenly with a match stick or piece of an applicator stick. Next, the stencil with the inscription cut into it is inverted and laid on the inked surface in such a way that all cut portions of the stencil will be printed. The ends of the stencil sheet are crimped into the groves on the sides of the block by match sticks or other sticks sandpapered to suitable size. A few initial impressions on newspaper or other absorbent surface will even the distribution of ink and absorb any excess ink that might seep through certain parts of the inscription on the stencil. The inscription is then ready to be applied to envelopes or paper triangles.

Preparation of the stencil, inking the block and attaching the stencil require perhaps two or three minutes, after one gains a little experience, and impressions can be made about thirty per minute. Thus, in six minutes or so the experienced user can fully label a hundred triangles or envelopes.

My field mimeograph kit contains the following items:

a. the mimeograph block and sticks for crimping the stencil
b. a small cardboard box in which the block, with the last used stencil left in place, is stored between operations
c. a fine tipped (but not sharp pointed) stylus
d. a plastic backing sheet, four inches square, for cutting stencils
e. a supply of stencils cut to proper size and interleaved with stiff paper
f. a small tube of mimeograph ink
g. applicator sticks for spreading the ink
h. a few paper cleansing tissues (accidents will happen!)

All this equipment, together with a few hundred paper envelopes (2 x 3½ inch, No.2 drug type), can be stored in a cigar box or equivalent space. The total cost of the materials listed is perhaps $1.50, and only a little work is involved in making the block. But the cost of maintenance is extremely slight, the stencils costing somewhat more than a cent apiece and a small tube of ink lasting many years.

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