In field tests in the summer of 1953, the instrument was placed between rows of tomato and potato plants. Within 5 min after visible dew appeared on surrounding foliage, the pen began tracing. In the morning, from 1 to 1.5 hr after sunrise, the pen ceased tracing within 5 min after the disappearance of visible dew from surrounding foliage. Usually at this time solar radiation was measurable in the plot.

The instrument has been designated the Wallin-Polhemus dew recorder and has been submitted to the U.S. Patent Office. Patent is pending.

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A Classified Bibliography of Inbred Strains of Mice[1]

The Roscoe B. Jackson Memorial Laboratory has compiled and maintains a bibliography of all papers appearing in books, journals, and reprints in which reference is made to specific inbred strains of mice, named genes in mice, or named transplantable tumors. This was started in 1948, and was intended solely for use by Jackson Laboratory personnel. However, because of its ever increasing magnitude (now approaching 5000 references), we feel that other investigators in the fields covered might be interested in using it. Any qualified investigator or student is welcome to use the bibliography. The references are fairly complete for the English-language publications, somewhat less so for other languages.

From the Keysort 5 by 8 in. cards on which the references have been classified, one can, by a small number of insertions of the stylus, sort out all the references on the use of any strain for some particular problem; on the incidence of various conditions in any strain; on any strain or named tumor; on the uses of any transplantable tumor; on all available comparisons of neoplastic and normal tissues; on any work with named genes; and so on. Use is made of two types of sorting: "direct," in which the subject or strain is individually named on the margins of the reference card, and "indirect," for which it is necessary to consult a key or index and needle a code number to locate references to the branch of a field of interest, or the particular minor strain, or the named transplantable tumor which one is seeking.

The mouse strains which are direct-punched are those available in quantity through the supply department of the Jackson Memorial Laboratory. These are in general the most widely used strains. Twenty-four other strains are coded in a numbered field. Particular named hybrids are indicated by punching the parent strains. Ten holes on the card have been left blank for future expansions of the classification system.

[1] It is a pleasure to acknowledge the generous financial assistance of the Ladies Auxiliary to the Veterans of Foreign Wars.

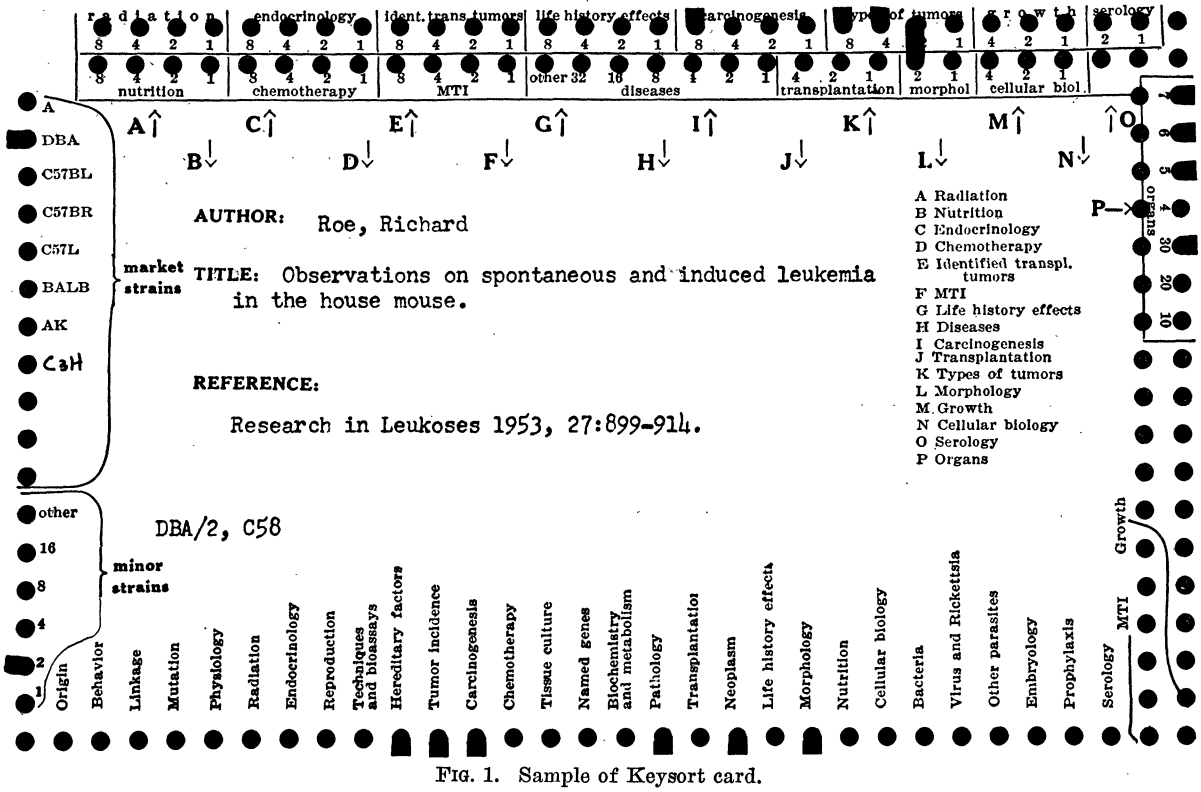

FIG. 1. Sample of Keysort card.

We have found it expedient to separate cards into periods of years (prior to 1930, 1930–34, 1935–39, 1940–44, 1945–49, and yearly thereafter). This helps a search considerably by eliminating periods in which the searcher is not interested. An index-key enables the user to find any subject quickly. This index also contains "key references," which aid in a general search of a wide field. The original hand-written cards from which the punch cards are typed are maintained as a separate author file.

JOAN STAATS

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Received November 12, 1953.

Tobacco Mosaic Resistance in Spain

WORK aimed at the production of mosaic-resistant strains of tobacco was begun in 1934 at the Spanish Tobacco Research Institute. Seed from the Ambalema tobacco was obtained in the spring of 1933 from J. A. B. Nolla, of the University of Wisconsin, who had discovered this resistant strain in the Cauca Valley of Colombia, South America.[1] Susceptible commercial strains were: a Philippine cigar tobacco of small thin leaves; Kentucky Dark; Cantabria, a selection from Kentucky tobacco, with large broad thick leaves; and M. Havana, a selection made in northern Spain from Cuban cigar tobacco. The strain Macrophylla, of large, slightly petiolate broad leaves, received from Scafati (Italy) is of no commercial value.

The first crosses involved Philippine and Kentucky Dark with the resistant Ambalema (Am.). After careful inoculation with the ordinary tobacco mosaic virus from Spain, two selections were made from F_2 progenies; a resistant segregate No. 60 from the Am. × Philippine and No. 61 from the Am. × Kentucky Dark. These segregates did not exhibit all the desirable characteristics for a commercial cigarette tobacco. It was found necessary to improve them by crossing with more desirable strains. Thus, segregate No. 60 was back-crossed to Philippine and to several other tobaccos including Mammoth Havana.

From the new series of crossings several desirable strains have been developed by continued selection from the following:

No. 230-B	(Am. Philippine)	× Philippine
226	"	× Cantabria
243	"	× Macrophylla
240	"	× M. Havana

These strains are not grown on a commercial scale in Spain but they serve as the nucleus around which it is hoped to produce desirable commercial forms.

All the strains mentioned, upon inoculation with the mosaic virus from this country, develop very mild symptoms of the disease. In this sense they are regarded as equal to Ambalema.[2]

ENRIQUE ALCARAZ-MIRA

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[1] Nolla, J. A. B., and A. Roque. 1933. A variety of tobacco resistant to ordinary tobacco mosaic. *J. Puerto Rico Dept. Agr.* **17**, 4, 301–303.

[2] Seed is available for distribution to research workers. *Director, Instituto Biología del Tabaco, Seville, Spain.*

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The Influence of Cortisone, Antibiotics, and Granulestin on Antibody Production

IN a previous report (*1*) it was pointed out that short-term feeding of antibiotics to mice and rats resulted in increased antibody production. Since then antibody production has been studied in rats and mice fed natural foods, stock diets containing 0.1 percent Aureomycin, 0.1 percent Terramycin and 2 percent granulestin. Various combinations of these were tried with and without cortisone.

Cortisone injected rats were given chlortetracycline and oxytetracycline supplemented diet, control diet, diet containing both an antibiotic and granulestin. Salmonella enteritidis antigen was injected while the rats and mice were on the respective diets. In one typical experiment the titer of the rats given cortisone was approximately one-half that of the controls. Rats injected with cortisone receiving antibiotics plus granulestin in their diets yielded a titer higher than that of the controls. In mice it was found that cortisone alone interfered with antibody production very markedly. When mice were injected with cortisone and fed diets containing antibiotics or antibiotics plus granulestin, the agglutinin titers of those animals were several times as great as those of the mice fed control diet.

Additional work is in progress with rats and mice fed diets containing antibiotics to study the effect of cortone given orally and parenterally on resistance to infection.

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Reference

1. SLANETZ, C. A. *Antibiotics & Chemotherapy* **3**, No. 6 (June 1953).

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