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THE PUBLIC AND THE CANCER PROBLEM[1]

By Dr. JAMES EWING

DIRECTOR, MEMORIAL HOSPITAL, NEW YORK

PUBLIC interest in the cancer problem is now at the highest point in history. Evidences of this interest appear on all sides and many occasions. The radio audience listens to grave references to cancer about as frequently as the average public taste for reality will endure. In one state ninety radio talks on cancer were delivered in one week. Nearly all classes of magazines find that their clientele will accept some, even several, serious discussions of cancer every year. In the yellow journals and so-called health magazines preposterous tales about the nature and cure of cancer are eagerly consumed in proportion to the unintelligence of the readers, while the emotional susceptibilities of the ignorant are fed by hideous devices depicting the ravages of the cancer dragon. Pseudo medical journals not infrequently decry against the standard methods of treatment of the medical profession and lay open a broad field for the exploitation of the public by numerous cancer charlatans. Many books, some serious, others incompetent, attempt more comprehensive messages mostly on the nature and social significance of cancer, but an adequate popular treatise on cancer yet remains to be produced and is urgently needed.

While the public interest rests ultimately on human experience with the disease, the radical change in public sentiment during the past twenty-five years and the advancing standard of general knowledge are largely due to the efforts of the American Society for the Control of Cancer, and other similar organizations in other countries, which have labored systematically and rather effectively to spread the knowledge of the main facts about cancer, emphasized the necessity of early diagnosis, stressed the warning signs of the major forms of the disease and in every way endeavored to establish an intelligent progressive attitude toward

[1] Evening Lecture before the National Academy of Sciences, Washington, April 25, 1938.

Amber	1
XMS–10023	1: 3
Hard rubber	1: 50–140

If, therefore, amber has a resistivity of $10^{-18}\Omega$/cm, XMS has about $3\times10^{-17}\Omega$/cm. The new material ranks very close to amber in its insulating qualities and will in many cases be a very good substitute for it. Its resistivity is equal to or perhaps a little higher than quartz, but the ease of molding it will make it superior to quartz. Whereas amber insulators are usually flamed to remove surface charges, XMS–10023 will charge itself when brought into the flame. Cleaning with alcohol will suffice to make it ready for use.

For atmospheric electric and Radon measurements the qualities of this plastic seem to be quite satisfactory.

H. LANDSBERG
A. I. INGHAM
THE PENNSYLVANIA STATE COLLEGE

A NEW METHOD FOR MARKING SMALL LABORATORY ANIMALS

VARIOUS methods are utilized in different laboratories to facilitate the identification of individual animals. Large mammals, such as cats, dogs and rabbits, are frequently kept in individual living cages and under such conditions identification marks may not be needed. This is not always the case when an experimenter is using rats as his subjects. In many laboratories from ten to one hundred rats are kept in the same living cage and it is always useful and frequently essential to be able to select accurately one particular animal from this number.

Perhaps the most popular method of marking rats is that of mutilating the ears. Usually the ears are notched or perforated with a small punch. A third and less common procedure is to amputate the toes of the hind feet in various combinations, and even to cut off a portion of the tail. All the above methods have serious drawbacks if they are to be applied to a large number of rats which are to be marked for a long period of time. In addition to difficulties arising from healing and regeneration of the mutilated tissue, any one of these methods involves the necessity of teaching laboratory assistants the pattern of combinations used to designate the various numbers.

The writer has found that one extremely simple and practical method of marking rats is to tattoo the identification numbers in the ear. The principle of the machine used is very simple and the laboratory worker can construct his own tattooing outfit. However, machines can be purchased so cheaply that it is scarcely worthwhile to attempt their construction. A machine used to mark rats in this fashion can be purchased in any large city for $3 or $4 in an establishment where tattooing is performed. The apparatus is that used to tattoo designs in human flesh. The most satisfactory material for putting the numbers in the ear is india ink.

In the writer's laboratory are several animals with identification numbers tattooed in their ears six months previously. These marks show no signs of fading, and experience with designs tattooed in human skin indicates that a number once tattooed into the rat's ear will remain legible throughout the animal's lifetime. The application of this method of marking is of great assistance if one wishes to keep a genetic record in connection with breeding in the colony. Young rats can be marked for life at the time of weaning.

FRANK A. BEACH, JR.
AMERICAN MUSEUM OF NATURAL HISTORY

THE USE OF COTTON TO ABSORB BLOOD FOR CHOLESTEROL EXTRACTION

THE determination of cholesterol in blood with the micro extraction apparatus previously described[1] is facilitated by substituting absorbent cotton for the filter paper. A quantity of absorbent cotton is washed several times with fresh portions of chloroform and dried in the air to remove fatty contaminants. A small piece of cotton is tamped into the extractor with a glass rod. The upper end of the cotton should be about 2.5 cm from the open end. The tip of the blood-filled pipette is firmly pressed into the cotton, which then absorbs the blood quantitatively. A second, smaller piece of cotton is tamped against the blood-soaked cotton, and the drying and extraction are performed according to the original directions.

The apparatus now has a cylindrical glass shield. This protects the extraction tube from draughts and permits the operation of the heating element with a smaller current, thereby prolonging its life.

E. M. ABRAHAMSON
BROOKLYN, N. Y.

[1] SCIENCE, 86: 477, 1937.

BOOKS RECEIVED

CRATHORNE, A. R. and E. B. LYTLE. *Trigonometry.* Pp. ix + 95. 139 figures. Holt. $2.00.

CURTMAN, LOUIS J. *Qualitative Chemical Analysis.* Revised edition. Pp. xii + 514. 44 figures. Macmillan. $3.75.

ECKELS, CHARLES F., CHALMER B. SHAVER and BAILEY W. HOWARD. *Our Physical World.* Pp. xi + 801. 436 figures. Sanborn.

ELDERTON, W. PALIN. *Frequency Curves and Correlation.* Third edition. Pp. xi + 271. Cambridge University Press, Macmillan. $3.75.

HOGNESS, T. R. and WARREN C. JOHNSON. *Elementary Principles of Qualitative Analysis.* Pp. x + 325. 27 figures. Holt. $1.40.

Organon; International Review, II. Pp. 302. Mianowski Institute for the Promotion of Science and Letters, Warsaw.

WEST, GEOFFREY. *Charles Darwin.* Pp. xiv + 359. 8 plates. Yale University Press. $3.50.

WOLFENDEN, J. H. *Numerical Problems in Advanced Physical Chemistry.* Pp. xx + 227. Oxford. $2.75.