I am very glad you have drawn my attention prominently to the localizing function in Drosera, as it is very likely I have been too keen in my scent after nerves; and I believe it is chiefly by comparing lines of work that in such novel phenomena truth is to be got at. And this reminds me of an observation which I think ought to be made on some of the excitable plants. It is a fact not generally known, even to professed physiologists, that if you pass a constant current through an excised muscle two or three times successively in the same direction, the responses to make and break become much more feeble than at first, so that unless you begin with a strong current for the first of the series, you have to strengthen it for the third or fourth of the series in order to procure a contraction. But on now reversing the direction of the current, the muscle is tremendously excitable for the first stimulation, less so for the second, and so on. Now this rapidly exhausting effect of passing the current successively in the same direction, and the wonderful effect of reversing it, point, I believe, to something very fundamental in the constitution of muscular tissue. The complementary effects in question are quite as decided in the jelly-fish as in frog's muscle; so I think it would be very interesting to try the experiment on the contractile tissues of plants.

The discovery of the above-described phenomenon is generally credited to Gulacsy, who reported it in 1929.[2] When one considers that Romanes also first observed, in the umbrella of the jelly fish, what is now known as fibrillation, it would seem appropriate to take cognizance of his important physiological research by attaching his name to one of these phenomena. It is therefore suggested that the recovery of excitability of a tissue upon reversal of polarity of a stimulating current be called the "Romanes effect."

H. J. RALSTON

COLLEGE OF DENTISTRY AND
DEPARTMENT OF MEDICINE,
UNIVERSITY OF CALIFORNIA

## THE GENERIC NAME OF THE SAND FLY

IN a paper published in SCIENCE for May 26, 1944, Dr. Charles T. Brues stated that I overlooked the reason for spelling *Flebotomus* with a "ph" and not with an "f" as I claimed it should be spelled. Rondani[1] in his original description spelled the word *Flebotomus*. Dr. Brues claims that this is an evident typographical error on Rondani's part and as such should be corrected. I can not see where this can be considered a typographical error as Rondani used it many times. Dr. Brues bases his arguments on the fact that the word *Flebotomus* was derived from the Greek words vein (φλερὸς) and cutting (γομή) and the correct Latinized form would be spelled with a "ph" and not "f." This then becomes a question for the students of classical languages; furthermore it is the custom of Italians to translate the Greek "ph" as "f." Rondani very often deviated from the standards that are now accepted as proper in Latin and there can be little doubt that the name was printed the way he intended. According to the general understanding of generic names, the name must be used as originally spelled except when there is an absolutely unquestioned typographical error. Since the use of *Flebotomus* by Rondani is not an unquestioned typographical error I believe that Dr. Brues' argument is without foundation and the spelling *Flebotomus* is correct.

WILLIAM F. RAPP, JR.

CHATHAM, N. J.

[2] Z. V. Gulacsy, *Arch. f. d. ges. Physiol.*, 223: 407, 1929.
[1] *Mem. Prima. Serv.* Dipt. Ital., 1840, p. 12.

## A SURVEY OF FOOD PRICES

PALO ALTO is a university town of about 18,000 population. Some of the residents are engaged in business in San Francisco, some are retired, while others, normally a small proportion of the whole, are employed by industries in Palo Alto and adjacent communities. Otherwise the town may be regarded as a typical university community—the residents engaged in activities that center about Stanford University.

Since 1939 a shopping survey has been made among the retail food stores of Palo Alto, in all cases during the third or fourth week of May. The results may be of more than local significance, for they indicate trends in retail food prices that are probably apparent in other communities.

Year by year the same items were priced. To give a proper weighting to the list the quantities of various foodstuffs required for a liberal diet were used. The cost of such a diet was calculated for one week's maintenance of an adult man engaged in moderate physical activity.

While it is recognized that many different liberal diets could be devised, all would be characterized by being comparatively low in highly processed and refined cereals and comparatively rich in so-called protective foods and high quality protein foods. The particular diet that we have priced contains an abundance of dairy products, fresh fruit and vegetables and high-quality proteins. Differences in regional dietary practices or in seasonal availability of foodstuffs would permit many variations without serious trespass upon the limits of a liberal diet. The particular foods about which these surveys have centered would provide per day approximately 3,180 calories, 137 gm of fat, 318 gm of carbohydrate, 107 gm of protein, 1.36 gm of calcium, 2.04 gm of phosphorus, 20 mg of iron, 15,000 units of vitamin A or its equivalent, 160 mg of ascorbic acid, 370 units of vitamin D,

1.4 mg of thiamin and 2.7 mg of riboflavin. These values refer to the food as purchased and should be reduced by probably 10 per cent. to reflect the values for food as consumed.

The list of foods, per adult per week, is as follows:

| | | | |
|---|---|---|---|
| Bread | 1 lb. | Sw. potatoes | 1 lb. |
| Oatmeal | ½ " | Potatoes | 3 lbs. |
| Cornmeal | ½ " | Cabbage | 2 " |
| Sugar | 1.2 lbs. | Lettuce | ½ lb. |
| Milk | 3½ qts. | Carrots | 1 " |
| Cheese | ¾ lb. | Beets | 1 " |
| Butter | ½ " | Canned corn | ½ " |
| Eggs | 7 (lg. Gr. A) | Oranges | 2 lbs. |
| Lard | ¼ lb. | Apples | 1 lb. |
| Side bacon | ¼ " | Bananas | 1 " |
| Beef chuck roast | 2½ lbs. | Dried prunes | ½ " |
| Pink salmon | 1 lb. | Canned peaches | ½ " |

Five stores were included in the 1939 survey, six in 1940, seven in 1941 and nine in 1942, 1943 and 1944. Three of the stores in the 1939 list and four in the subsequent lists are members of chains. A large co-operative store was included. All small stores were deliberately omitted as well as one or two stores which cater to luxury trade and are recognized as atypical in respect to distribution costs and retail prices.

In the case of canned goods the cheapest brands were priced. It is believed that the nutritive qualities were reasonably comparable. To obtain maximum economies in purchasing, quantity prices (up to 10 pounds) were used whenever feasible as the basis for the calculations (see Table 1).

The increases reported since 1939 are not to be considered as indicative of the extent to which the cost of living has increased. This is because cost-of-living indices include many items other than food, and also because liberal diets are low in cereal products (which have increased but little) and rich in fresh vegetables, fruits, fish, eggs, dairy products and meat (which have increased considerably). For example, there has been no increase in Palo Alto in the retail price of bread, cornmeal and oatmeal during the six-year period, but very substantial increases in fresh vegetables and meat.

TABLE 1
COST OF DIET

| | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 |
|---|---|---|---|---|---|---|
| Average cost at retail | 2.28 | 2.28 | 2.96 | 3.59 | 4.72 | 4.26 |
| Percentage increase over 1939 | ... | 0 | 30 | 57 | 107 | 87 |

A substantial decrease in price is apparent since the 1943 survey. This is largely due to decreases in the retail price of fresh vegetables (down 23 to 67 per cent.), beef and bacon (down 12 and 28 per cent., respectively).

The point value of the diet has changed but little in the past year: 37 red and 10 blue in 1943; 35 red and 12 blue in 1944. This consideration is of relatively little importance since substitutions (fresh fish, poultry, rabbit, game, meats other than beef) capable of cutting substantially the red point value are quite possible from time to time.

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J. MURRAY LUCK

DEPARTMENT OF CHEMISTRY,
STANFORD UNIVERSITY

# SCIENTIFIC BOOKS

## NORTH AMERICAN FOSSILS

*Index Fossils of North America.* By HERVEY W. SHIMER and ROBERT R. SHROCK. A Publication of the Technology Press, Massachusetts Institute of Technology. New York: John Wiley and Sons, Inc. $20.00.

EVER since "North American Index Fossils" went out of print, Shimer has been working on a revision, which now, with Shrock's enthusiastic cooperation, has come out as a new book. It is no mere compilation; its 837 pages and 303 plates are crammed with new information and illustrations. It is a library in itself. Many a course in invertebrate paleontology could be given with this book alone. With it in hand, the instructor will be saved endless time which would otherwise be employed in hunting out illustrations in separate publications.

Best of all, it is up to date, or as nearly so as is humanly possible in a printed work. Genera and species bear their correct names, vouched for by specialists. Seldom has there been such an example of perfect cooperation, an obvious tribute to the authors.

Full credit for assistance is given to all collaborators, even to the present writer, who did little more than to say yes or no, as problems came up. Certain sections are credited entirely to the specialists who contributed original manuscripts. Thus we find, as primarily responsible for their sections, Joseph A. Cushman, Loyd G. Henbest and W. Storrs Cole, Foraminifera; Lewis M. Cline, Blastoidea; Raymond C. Moore and Lowell R. Laudon, Crinoidea; Edwin B. Branson and Maurice G. Mehl, conodonts; G. Arthur Cooper, Brachiopoda; J. Brookes Knight and Josiah Bridge, Paleozoic Gastropoda; Frank M. Carpenter, Insecta; Raymond E. Peck, Charophyta; and J. Harlan Johnson, calcareous algae. In this list of impor-