The need for the precise definition of some other technical terms that denote the amount of quality of structures and the delimitation of the boundaries covered by each such term is equally great. Thus the terms *gamo-* or *poly- sepalous* or *petalous* are used to convey different amounts of fusion and freedom of sepals and petals; and *granular, punctate, tuberculate, verrucose, papillate, mammillate, muricate, echinate, spinose, hispid, hirsute, pilose, tomentose,* and so on, are used to denote different degrees of granulation, sculpturing, or hairiness by different authors. Accordingly, the reader is often uable to grasp the exact meaning of these terms, and there is a lot of scope for personal judgments and errors.

It cannot be denied that a certain amount of plasticity in the usage and meaning of technical terms is often necessary in a descriptive science; but at the same time it is equally important to know precisely what amount of variation each one of our terms covers. However, many of the present divergences in our terminology are unintentional, or are based on differing old views that are no longer valid, or are due to the lack of an authoritative glossary. This naturally leads to confusion and very often lands both students and teachers in difficulty.

It seems that anomalies such as the ones enumerated here have been encountered by many other botanists and have led to the formation of a section of terminology in the forthcoming International Botanical Congress. A committee should be formed for drafting an international glossary at this Paris congress; it should go through the whole problem and also frame rules for the formulation of new terms. A list of synonyms could also be drawn by this committee. It may be mentioned that wood anatomists long ago took the lead and compiled international glossaries of their technical terms (14).

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April 29, 1954.

Stable Colloidal Sulfur Solutions

In the course of an investigation on the microdetermination of mercaptans by their reduction of colloidal sulfur to hydrogen sulfide (*1*), the need arose for the preparation of a more stable and concentrated solution than is afforded by pouring a hot, saturated alcoholic solution of sulfur into water. It was found that any of the "Carbowaxes" (*2*), as well as propylene glycol, dissolve sulfur quite readily and produce stable colloidal solutions when poured into water. For example, a solution of sulfur may be prepared by dissolving 1.5 g of sulfur in 40 ml of Carbowax 200 at 110°C and adding it to 60 ml of cold water.

The colloidal solutions so prepared are free of electrolytes and hydrogen sulfide. The use of these solutions in determining microgram quantities of ethyl thioglycollate is being reported elsewhere (*3*).

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References and Notes

1. J. D. Guthrie and J. Allerton, *Contrib. Boyce Thompson Inst.* **12**, 103 (1941).
2. A series of polyethylene glycols of various molecular weights available from the Carbide and Carbon Chemicals Corp., New York.
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May 13, 1954.

Transplantability of Tumors

It has been reported by R. H. Foulkes [*Science* **119**, 124 (Jan. 22, 1954)] that benign tumors are incapable of further growth by transplantation. In an article on "The study of benign neoplasms of the rat's breast" [*Am. J. Cancer* **22**, 497 (1934)], I reported that six rats with spontaneous benign tumors yielded transplantable tumors from 4 to 53 generations. These tumors were under observation for some 15 yr at the Institute for Cancer Research, Columbia University. The variable morphology in different sex and age groups was described. The influence of hormones as growth stimulators or inhibitors was studied.

Other reports of experiments and results were as follows: *Am. J. Cancer* **27**, 450 (1936), **33**, 423 (1938), **39**, 172 (1940), **40**, 343 (1940); *Cancer Research* **2**, 25 (1942), **3**, 65 (1943); *Cancer* **2**, 329 (1949). The literature contains many other references on transplantability of benign mammary rat tumors: Willis, *Pathology of Tumors* (1948); Oberling *et al., Pathology; Year Book of Pathology and Immunology* (1941), and so on.

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March 5, 1954.

My overlooking the early and thorough study of Heiman was indeed a regrettable error. Malignancy and transplantability of tumors are still considered by many as almost synonymous. Publication of my brief note as confirmatory of the studies of Heiman and

others which have been brought to my attention would have been quite justifiable. The observations were made in the course of a study of other characteristics of the tumor in question which will be reported later.

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March 22, 1954.

Alas for Human Frailties!

As an English teacher and editor I fully agree with Eugene S. McCartney's admonitions in "Does writing make an exact man?" [*Science* Apr. 23, 1954]. But alas for human frailty! In the very paragraph in which Dr. McCartney deplores "errors of fact and lapses of memory" there occurs precisely such a fault —the more egregious because it is committed in the act of chastising another writer for a supposed mistake. What Dr. McCartney wrote is this:

> In a recent issue of our most literary magazine, a gifted scholar speaks of *Webster's New World Dictionary,* a glaring inadvertence that all readers of the manuscript and proof should have noticed. (The word *international* subconsciously suggested to the author the partial synonym *world.*)

The reference is to an article by Jacques Barzun in the Dec. 1953 issue of the *Atlantic Monthly,* and the error is not Dr. Barzun's, nor are the readers of Barzun's manuscript and proof deserving of rebuke. Dr. McCartney should have looked up before he leaped. Barzun praised and intended to praise *Webster's New World Dictionary of the American Language* (World Publishing Co., Cleveland, 1953), not *Webster's New International Dictionary,* published by the G. & C. Merriam Company; I know this because he made his purpose quite clear in correspondence with me about the *New World Dictionary,* of which I am general editor.

All of which, of course, merely underscores the validity of Dr. McCartney's exhortations and injunctions to writers. (But I confess to some slight surprise at the nodding of *Science's* editorial staff which let his slip pass in the night; after all, the NWD has been pretty widely advertised for over a year, and even Dr. Barzun's omission of the last four words of the full title—a common enough practice—ought not to have induced unwariness.)

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April 29, 1954.

Dr. McCartney, having seen Prof. Friend's letter, writes to us that the error he committed illustrates a point he made in his article, namely, that it is virtually impossible to write a perfect article. As for the "nodding of Science's editorial staff," the editor admits that he had let the existence of the dictionary in question slip completely out of his mind as a result of having read Carlton F. Well's review of it in The Saturday Review (of Literature) *last year. As for the dictionary having been pretty widely advertised, the only publicity that we have seen—other than Prof. Well's unfavorable review—came out too late to be of help to us. We refer to Norman Cousin's editorial in* The Saturday Review *for May 15, page 24, and to the news item, "Editor's Decision," in* Newsweek *for May 24, page 58.*

Effects of Itrumil (New Antithyroid Agent) on the Histological Structure of the Rat Thyroid

The subcutaneous injection into mature male and female rats of 50 mg of Itrumil (5-iodo-2-thiouracil) dissolved in 2 ml of distilled water at room temperature for a period of 12 days produced the histological picture in the thyroid glands shown in Fig. 1. The daily dosage was injected in two equal amounts.

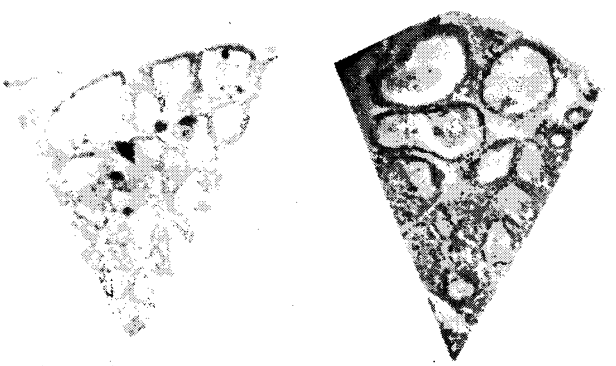

Fig. 1 (left). Photomicrograph (approximately ×100, enlarged 3 times) of cross sections of thyroid glands of rats subcutaneously injected with Itrumil. Fig. 2 (right). Photomicrograph (approximately × 100, enlarged 3 times) of cross sections of thyroid glands of untreated control rats.

The histological picture in Fig. 1 is similar to that described by Barrett, Gassner, and Dittmer (*1*) and by Barrett and Gassner (*2*). My results support those of Barrett and others in that the data and figures show that there are no histological differences between the thyroid glands of the untreated control animals shown in Fig. 2 and those of the experimental animals. In both groups the larger thyroid follicles were invariably at the periphery and surrounded by an epithelium of flattened cells, the smaller follicles were more centrally located and surrounded by an epithelium of cuboidal cells, and all follicles contained a good quality of colloid.

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May 5, 1954.