

name, out of a million or more, as compared with one of these great products of the human mind?

These principles and practices of taxonomy have created another field of labor, synonymy, fully as difficult, more far-reaching, and even more expensive, as taxonomy, and we are but at the beginning. Some now devote their time to the study of names and never learn about plants. All real taxonomists are compelled to spend an increasing percentage of their time in the study of names, leaving less and less of their energy for the study of plants. Which are the most important to humanity, names or plants? Which are the most important to science?

All of this has been done under a fetish known as stabilizing nomenclature. Fosberg and Diehl refer to systematic botany's contribution in studies to "stabilize nomenclature." I will defy any person to compare the successive manuals of botany issued in the last 100 years and produce any indication whatsoever that nomenclature is being stabilized. If the permanence of patent (priority) rights to a name never had been acknowledged in taxonomy, we would have had a stable nomenclature long since. As it is, all workers in botany have to learn a new set of names for most plants every 25 or 30 years. This not only is maddening, but absolutely unnecessary.

Suppose that we applied such a rule in the realms of chemistry, economics, geology, cosmogony, mathematics, philosophy, physiology, theology, etc., and had to cite the name of the original promulgator of an idea every time we mentioned it. Suppose that we always were finding (as we are) that someone just a little earlier had evolved what might be claimed to be the same idea. Suppose that we had to append the name of the architect or builder every time we mentioned a great structure or addressed a letter to a given house or office building. If we did, we would be approaching the futility of the situation to which the stupidity and unrealism of taxonomists have brought that science.

If the taxonomic world really believed in, or desired, stability of nomenclature, they would have worked to achieve it long ago through limiting prior rights to a specified term of years or through conserving well-known and widely used specific names when they had been in such use for 100, 50, or 25 years. This would prevent the present disastrous absurdity of letting a few-months priority displace names well-known and widely used for 140 years.

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#### Cancer Research and Benefit to Patients

It cannot be otherwise but that the tenacity with which the practitioners of applied or practical research claim omnipotence is matched by the pertinacity with which the practitioners of academic or pastime research claim holiness. While the former clothe their activity with the semantics of utility, their basic motive is, of course, the acquisition of material things. And while the

latter clothe their activity with the semantics of increasing knowledge, their basic motives are, of course, self-amusement and fame. Such camouflage is necessary, we humans being what we are. But the conflict between the motives of the two groups is in considerable part responsible for what Prof. George Shull so aptly calls "the historical phenomenon" of the "long interval which" elapses "between the making of a fundamental discovery and the general understanding of its importance and full realization of its benefits" (*Science*, 1946, 103, 547).

Nowhere today is this delay more unhappily evident than in the field of cancer research. The accumulated data of Rous, Shope, Coley, Bittner, Strong, Andervont, Green, Greene, Williams, Taylor, Furth, Twombly, Cowdry, Diller, Bawden, Pirie, Stanley, Wycoff, Kunitz, and others indicate beyond peradventure the path for getting at something of practical benefit to the cancer patient of the future other than surgery and radium.

The demonstration that mother's milk may contain a transmissible agent productive of malignant growth—call it a virus or what you will—is evidence enough of an autogenously produced chemical compound type which is responsible for that distortion of ordered cell growth which results in malignancy and death of the individual. Yet where is the proposal that mothers with family histories of cancer should be warned against breast-feeding their infants? One such I have seen, but this was so buried in the literature that its excavation is impossible.

And where is the proposal that workers acquainted with this principle of transmissible agent should get together as a team, pool their respective experiences, knowledges, and ideas to undertake a concerted, coordinated, cooperative, organized attempt at isolation, identification, and investigation of the offending chemical compound—not separate and alone as they are now doing, but under one roof, in daily contact with each other, exchanging results, information, and ideas to the sole end of bringing as early as possible something of practical benefit to the cancer patient?

It is said that the academic scientists are too egoistic to work together, too set in their opinions, too unwilling to consider alternatives, too determined on fame. If this is so, they should take a leaf from their confreres in industrial research. Here, too, there are able scientists, working together in both applied and fundamental research to bring about results of practical utility. And our best brains in physics worked together in organized cooperation to produce the greatest destructive agent known to man. So why can't the same be done constructively to produce deflation of the second greatest scourge of human living, namely, cancer? Surely logic, reason, common sense, and the call of humanity make such procedure much to be desired.

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