or short-styled, may develop an achene-like, empty ovary already designated a *cenocarp* by Condit.[8] For such an ovary when inhabited by *Blastophaga psenes* we propose the name, *psenocarp*. A psenocarp differs from an achene in that Blastophaga occupies the position of the embryo.

It seems clear to us that the term "gall flower" should be omitted from future publications or, if used, be accompanied by a suitable definition. In redefining it the following statement should suffice: Gall flower, a term erroneously applied to short-styled fig flowers inhabited by fig insects; such flowers are normal and show no swelling or excrescences typical of galls. See Psenocarp.

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A GUMMOSIS OF CITRUS ASSOCIATED WITH WOOD NECROSIS

STUDIES during the past seven years at the Lower Rio Grande Valley Experiment Station have disclosed that the most prevalent and most serious citrus tree disease in this section is a type of gummosis; and that the gumming arises from cracks in the bark overlying and connected with irregular bands of necrotic wood, the greater part of which lies well beneath the outer wood layers. Reference has been made to this disease in annual reports of the Texas Agricultural Experiment Station.

Cross sections through a gumming branch disclose the end views of the necrotic bands of wood lying often an inch or more beneath the surface, irregular in thickness (varying from one fourth to two inches) and varying in width from a fraction of an inch to several inches, sometimes extending to three quarters or more of the circumference. Longitudinal sections show that the longitudinal extension of the necrotic band is usually several times the lateral spread. Spread is both upward and downward in the trunk or branch.

Affected wood is firm, and only slightly darker in color than normal wood, except that the advancing border region is a more or less salmon pink, becoming brighter in color soon after exposure to the air. Histologic studies of transverse and longitudinal sections through the wood in the peripheral pink region disclose the presence of hyphae of extremely small diameter and of what appear to be spores of equal diameter budding off their tips. The organism is suggestive of an Actinomyces in appearance. Its advance through the tissues is both inter- and intracellular, and in medullary rays as well as in longitudinal wood fibers. Aside from the spore-like bodies mentioned, no fungus fruiting bodies of any kind have been found consistently associated with the organism. The dead wood, however, in the older necrotic regions, is invaded by secondary organisms, chief among which is *Diplodia natalensis*.

Numerous attempts to isolate the primary organism in pure culture on ordinary organic nutrient culture media and on synthetic media have thus far failed. Inoculations into healthy branches, following the usual preparatory aseptic measures, using pink border wood as the inoculum and placing it well into the wood in a chisel wound, have in most cases brought about typical spreading necrotic bands in the wood, followed by gummosis. It would seem to be clear that this citrus tree disease is parasitic in origin. Points of entrance into the wood have been found in unprotected pruning wounds, particularly those large in diameter and with cracks or "checks" a half inch or more in depth; in branches broken by a storm; in wood injured and cracked by freezing; and in bark injuries made by the shoes of pickers and pruners. Spread is at times rapid. A spread of one and one half feet downward in thirty days occurred in one case under observation.

Exploratory excavations of affected trunks, to learn the extent of the path of spread, have disclosed that downward spread appears to stop at the line of bud union between the root stock and the top. The sour orange root stock would thus appear to be immune. The disease occurs commonly in sweet orange, grapefruit and the Meyer lemon.

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WHY THE RAINBOW AND THE CORONA NEVER ARE SEEN IN THE SAME CLOUD

NEARLY every good book on general physics explains (very inadequately, as a rule) how the rainbow is formed by the action of water drops on incident light from the sun or the moon, and some of them explain how the corona or small rainbow-colored ring around the sun or moon also is caused by water drops, but why, then, one never sees a rainbow in the corona-producing cloud appears always to be left to the reader to figure out for himself, which, presumably, he generally forgets to do.

Well, anyhow, the reason is that while a rainbow must be produced by the same cloud that shows the corona, it is too broad and indistinct, owing, as explained in Humphreys' "Physics of the Air" and elsewhere, to the minuteness of the drops to be clearly discerned. Perhaps, though, it might occasionally be glimpsed by persons of keen vision on looking at the right place (where the topmost portion of the usual

[8] Ira J. Condit, *Hilgardia*, 6(14): 459, 1932.

bow would be) and knowing what to look for. The chance of success would justify many trials, for the game would be worth the candle.

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THE NAMING OF METHODS, PROCESSES AND TECHNIQUES FOR AUTHORS

FOR some time, it has been the custom to give the name or names of authors to various types of discoveries and methods. However, it is not always easy to assign credit to a particular individual, since two or more workers or scientific groups may announce some new fact or series of facts at about the same time. There are probably a great number of such instances that have occurred and the following serve to illustrate the point: (1) the discovery of oxygen by Scheele and Priestley, and (2) the isolation of and the identification of crystalline Vitamin C by King and Szent-Györgyi.

The purpose of this note is to call attention to the name of the reaction or process for determining alcohol by the potassium bichromate-sulphuric acid method. In 1846, Thomson[1] announced that alcohol was oxidized to aldehyde in the presence of potassium bichromate and sulphuric acid and that the green oxide of chrome was produced, in an article, "On the Mode of Testing the Presence of Minute Quantities of Alcohol." It was not until 1896 that Nicloux[2] reported the use of this reaction in a method for determining alcohol. However, the recent literature gives credit to Nicloux for the method, and some authors have even called it the Nicloux method.

The oversight by Nicloux in not referring to the paper by Thomson does not detract from the latter's report, and, because of the priority of this report, we suggest that the procedure that involves the reduction of a potassium bichromate-sulphuric acid solution be named the Thomson-Nicloux method. The solution not only gives a green color with alcohol, but it does when it is treated with a variety of substances such as glucose, levulose, formalin, paraldehyde, diethyl ether, ethyl acetate and lactic acid.

It is possible that Nicloux did not notice the paper by Thomson, since that sort of oversight has inadvertently happened many times. One is often aware that the authors of certain publications have either made no great effort to search the literature or else ignored contributions by other individuals.

The reason for not referring to previous work in one's field of study is always difficult to explain and the custom, if practiced continuously, will lessen the value of one's contributions. The custom of using only the references to papers from one's own laboratory or chiefly those references by one's countrymen seems to be practiced more widely in some other countries than in the United States. This latter condition might be partially explained by the fact that numerous abstracting and indexing facilities are readily available to most scientists in this country.

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[1] Robert D. Thomson, *Monthly Jour. Med. Sc. London*, 6: 411–413, 1846.

[2] Maurice Nicloux, *Compt. rend. Soc. de biol.*, 10.s., 3: 841–846, 1896.

GOVERNMENT AID TO EDUCATIONAL INSTITUTIONS

DR. COWDRY'S article in the June 22, 1945, issue of SCIENCE ably presents the plight of endowed institutions of higher learning resulting from the drying up of endowment sources and the fall in interest rates. As a remedy he advocates a federal subsidy in the form of permission to purchase specially issued Government bonds yielding an interest rate higher than that presently obtainable on other securities, but desires that the aid be granted without federal control being exercised upon the institutions thus aided.

There appears to be a feeling that Government control is akin to a plague which defiles whatever it touches. While some projects may have experienced unfortunate results under Government control, others, such as the Interstate Commerce Commission and the Securities Exchange Commission, are admitted even by their early critics to have substantially achieved their objects; and may I suggest that, in any case where a grant of public money is involved, the granting of such money for any project, however worthy, without suitable controls, would be a betrayal of public trust. When private wealth bestows its largess upon educational institutions, it invariably does so under carefully stipulated conditions. By what logic can it be maintained that public funds should be granted to the same institutions without Government control being exercised in the public interest?

However excellent our private institutions of advanced learning may be, and however well they may have carried the torch of independent thought, it is rumored that certain undemocratic practices have crept into the administration of some of them relating to discrimination in the faculties and student bodies against certain groups. It would therefore appear that any Government subsidy should be granted only on full compliance with certain minimum requirements. An institution to receive such help should be one in which: