Generic names have been used as common nouns by bacteriologists from the earliest days of that science, as is witnessed by the ordinary use of such words as "bacteria," "bacilli," "micrococci," "streptococci"; and no one has ever raised any serious objection to this usage. Recently, however, a tendency has appeared in bacteriological literature which is more open to question. The following sentence is an illustration of this undesirable usage: "none of the rhizobia are able to grow in this medium except *Rhizobium meliloti.*" In this sentence it is obvious that "rhizobia" is not used in the sense of "specimens" or even "individuals of the genus *Rhizobium,*" but rather to mean "species (pl.) of *Rhizobium.*" In other words, the mistake is made of allowing the singular, "rhizobium," to stand for a species, not for an individual. This is the practice to which we take exception. The four terms mentioned in the first sentence of this paragraph are rarely, if ever, so used.

It is quite possible that this practice is confined to bacteriology. Certainly none of the instances mentioned by Dr. Mast and Dr. Beers represent nouns used in the above sense. In any event it seems well to call the matter to the attention of those interested in nomenclature; and to explain our reason for opposing the occasional misuse of bacterial generic names as common nouns.

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ANOTHER MOULD WITH ANTI-BACTERIAL ABILITY[1]

SEARCHING for new anti-bacterial substances among by-products of the growth of *Fungi Imperfecti* we have noticed that one culture of *Aspergillus* sp. of the *Candidus* group gave a positive reaction for the presence of citrinin. The substance isolated in crystalline form showed the same properties as those described by Hetherington and Raistrick.[2] Its bacteriostatic properties and selective action on Gram-positive bacteria further indicate the similarity to citrinin.

Comparing the data published by Oxford[3] on the bacteriostatic power of citrinin it appears that our substance in purified or crude state is somewhat stronger. Thus growth of *Staphylococcus aureus,* in nutrient or 1 per cent. glucose broth, was completely inhibited in dilution 1:64,000; *Staph. albus* 1:128,000; *B. mycoides* 1:128,000. Partial inhibition (about 50 per cent. opacity) was shown in 1:1,024,000 dilution for all above-mentioned organisms. In lower dilutions (1:8,000 or 125γ per ml) it showed bactericidal ability in the case of *Staph. aureus* and *albus.* Furthermore, autoclaving of the serial dilutions for 30 minutes at 15 pounds pressure did not reduce the bacteriostatic power of the substance.

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A METEORITE FROM VERMONT

THE first meteorite to be recorded from Vermont was discovered by the writer on Whitcomb Hill in the town of Strafford, Vermont, in August, 1942, while engaged in geological field work. It was not seen to fall but lay upon the surface of the ground when found.

The specimen is an iron meteorite weighing five pounds and two ounces. Its shape is triangular, much like that of a flatiron, having a maximum length and width of 5.5 inches and 4 inches, respectively, and a thickness of 2.5 inches. The characteristic Widmanstätten figures were brought out microscopically on a polished surface by etching with a dilute solution of nitric acid. The weathered surface is a dark, rusty brown.

The meteorite has been named the South Strafford meteorite because of the nearness of this village to the place of discovery. Further work on this meteorite is in progress.

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THE TOOLS OF SCIENCE AND THE WAR INDUSTRY

THE services that science can render to the war effort are of many kinds. The means for contributing some are readily at hand, while the means for contributing others must be created. Stanford University has had the privilege of assisting in an enterprise of the latter class that deserves to be reported as a possible source of ideas applicable in other instances. The experience is especially instructive as evidence of what can be accomplished through cooperation of a number of unrelated agencies working toward a common goal that no one of the agencies could have attained by itself.

An inquiry initiated at Stanford last spring into opportunities for contribution of statisticians to the war effort led to a suggestion from Dr. W. Edwards Deming, that a short course be offered to promote the adoption of recently developed statistical methods of quality control, and improved methods of sampling for tests of quality, in West Coast war industries. The suggestion posed two problems: that of providing for the requisite instruction, and that of bringing to

[1] Contribution No. 157 (Journal Series).
[2] A. C. Hetherington and H. Raistrick. *Phil. Trans. Royal Soc. of London,* Series B, 220: 269–295. 1931.
[3] A. E. Oxford. *Chem. Ind.,* 61: 48–51. 1942.

the course men actually in a position to apply the methods.

Suitable machinery for organizing and financing the suggested course was already in existence in the engineering science and management War Training Program, financed by the Office of Education. The institutional director of the program at Stanford took up the plan with enthusiasm. Aided by active support from the Ordnance Department, through its San Francisco District Office, he was able to bring together in early July, less than six weeks after the original suggestion had been received, a group of twenty-nine key men from industries holding war contracts and from procurement agencies of various branches of the armed services. These men, with three others, entered upon an intensive ten-day course with classes running eight hours a day. All thirty-two men completed the course.

The success of the first course, given at Stanford University in July, led to demand for a repetition. A second course, offered in Los Angeles in September, was equally gratifying in its results. Ten of the men attending the second course came from organizations that had sent one or two men each to the first course. Further repetitions of the course are in prospect. The two courses thus far offered have given training in specialized statistical methods for saving time and materials in the war production program to thirty-nine key men from war industries, assigned by their companies to attend the course, to fifteen men assigned by various branches of the armed services, and to five others admitted on the ground that because of previous special training in statistics they might become peculiarly useful to either war industry or the armed services.

The instructional program itself rested on a high degree of cooperation. Four instructors worked together in each course. Two, Professors Eugene L. Grant and Holbrook Working, came to the enterprise from different departments of Stanford University. The Bureau of the Census contributed the services for both courses of Dr. W. Edwards Deming. A fourth man on the staff for each course was drawn from industry to present the point of view of a man meeting from day to day the practical problems of applying the methods under discussion. This place was taken in the first course by Mr. Charles R. Mummery, of The Hoover Company, North Canton, Ohio, and in the second course, by Mr. Ralph E. Wareham, of the General Electric Company.

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SCIENTIFIC BOOKS

THE CRISIS OF OUR AGE

The Crisis of Our Age: The Social and Cultural Outlook. By PITIRIM A. SOROKIN. Pp. 338. New York: E. P. Dutton and Company., Inc. 1941. $3.50.

THIS is an epitome for the general reader of the author's technical four-tome "Social and Cultural Dynamics." The large proportion of space devoted to the historic rôle of the sciences in Western civilization would alone justify a review of the work in SCIENCE.

That our Western civilization is in crisis few would question. The crisis, Sorokin maintains, is not merely an economic or political one. It involves almost the whole of Western culture and society: art and science, philosophy and religion, law and morals, manners and mores, the forms of social, political and economic organization, the nature of marriage and the family. These various phases of our culture and society are largely interdependent and each is largely derivative from a dominant form of prevalently held basic principles and values.

To the three dominant forms or supersystems which Sorokin analyzes he gives the names ideational, idealistic and sensate. In the ideational form, supersensory, other-worldly and religious reality and value are regarded as supreme. In the sensate form, sensory, this-worldly and secular reality and value are so regarded, while the supersensory is considered either doubtful as reality or fictitious as value. In the idealistic form, both realities and values are recognized. At no given time in any given culture and society does any one of the three forms exclusively prevail and operate, either in all compartments of life or among all classes and individuals, to the complete blackout of the others. The three supersystems are conceived more as dominant forms of integration than as absolutely monopolistic ones.

One or other of the forms has historically held sway in different periods of all the great cultures. Thus, Greek culture from the eighth to the end of the sixth century B.C. was dominantly ideational, and in the fifth and fourth centuries B.C., idealistic; while Greco-Roman culture from the third century B.C. to about the fourth century A.D. was sensate. Then the ideational configuration came to the fore, persisted through the medieval period to the end of the twelfth century, and