

trial duty or for other activities in the national interest. It would do for the nation what the National Roster of Scientific and Specialized Personnel has done for some of the professions. It would enable us to plan our educational program more intelligently, and to correct remediable health defects in those who must be the backbone of any military effort we may be called upon to make.

(4) It would provide an almost limitless source for research in genetics, longevity, disease, human behavior and a hundred other fields. From the systematic study of such data would come leads and discoveries of tremendous value to science, and, ultimately, of tremendous benefit to the individual. Such a reservoir of data would have a thousand and one uses, many of which we to-day can not even foresee.

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EDITORIAL CHANGES IN SCIENTIFIC PAPERS

DR. WILLIAM C. BOYD (SCIENCE, August 27, 1943) complains of editorial changes whereby a substantive modifying a noun (in his manuscript) becomes an adjective modifying a noun (on the printed page).

Probably the most important factor in the impairment of English speech to-day is the fallacy that parts of speech may be connected without the use of connec-

tives. Without knowing what journals are under criticism, it may be safely conjectured that the editors have, as a safeguard, wisely established a style which will permit this malady (a noun modifying a noun) to be treated both in its early and in its acute stages, where (with apologies to Gert. Stein) a noun modifies a noun modifies a noun modifies a noun. More rigorous and more intelligent editing would have prevented the following expressions, all of which recently appeared in print: "rudder control mechanism sequence," "material control shortage group," and "instrument approach procedure summary."

The first cited instance of Dr. Boyd's displeasure is the editorial change of "horse serum" (which is ambiguous) to "equine serum" (which is unmistakably clear). "Horse serum" may mean serum *for* the horse, serum *from* the horse, or serum *of* the horse, just as the widely used expression "Consumer research" may mean research *by* the consumer, research *concerning* the consumer, or research *for* the consumer. The argument that the man who elects to read any material will understand which one is meant is not a valid one. How do we know? Surely one of the most important functions of language is to convey information to the uninformed, and the language of science should be written not only so that it can be understood, but so that it *can not be misunderstood*. In attaining this end, proper editing will continue to be of great value.

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SCIENTIFIC BOOKS

RADIO AND ELECTRONICS

Experimental Electronics. By RALPH H. MILLER, R. L. GARMAN and M. E. DROZ. New York: Prentice-Hall, 1942.

Principles of Radio. By KEITH HENNEY. 4th Edition. New York: John Wiley and Sons, 1942.

Principles of Electronics. By ROYCE G. KLOEFFLER. New York: John Wiley and Sons, 1942.

Elements of Radio. By ABRAHAM MARCUS and WILLIAM MARCUS under the editorship of RALPH E. HORTON. New York: Prentice-Hall, 1943. \$4.00.

Fundamentals of Electricity. By LESTER R. WILLIARD. New York: Ginn and Company, 1943.

RADIO and electronics have permeated every branch of our war effort. The production of electronic equipment for the armed forces alone is several times the normal peace-time production. The dissemination of war information makes the maintenance of home radio receivers and the broadcast stations an industry essential to the prosecution of the war. In addition, war industries, from gasoline refineries to ordnance manufacturers, have found this new tool, electronics, so

valuable in reducing man hours that the development and manufacture of such apparatus is being carried on under the highest priorities. The vacuum tube is no longer only the bulb in the parlor radio. It has gone to war. We find it by the guns and in the factory.

People from many walks of life are finding that they must learn of the electron tube and its applications. The chemical engineer finds it controlling his processes. The power plant engineer finds it increasing the efficiency of his boilers. The foreman of the manufacturing plant finds it used as a tool on his production line. The airplane manufacturer finds it molding his fuselage and wing parts. The shipbuilder finds it in his welding operations. The ordnance officer finds it throughout his equipment. The naval officer and the air force officer would be lost if it failed.

These applications of the electron tube have shown the need for personnel trained in the field of radio and electronics. The present scarcity of trained personnel is requiring the employment of many persons who are unfamiliar with even the basic principles