rated the principles of the theory of metals and explained a number of their properties. It was he, too, who explained a number of the properties of ferromagnetites. Bloch, Boethe and Haitler explained a number of the effects of the passage of rapid, charged particles through an element. Their work forms the foundation for the comprehension of all the phenomena taking place in the cosmic rays. Boethe and Paiphes are likewise known for their work on the theory of the atomic nucleus and on the physics of crystals. Haitler and London have explained the properties of chemical forces. Their work in this direction plays an important role in the study of the colossal amount of facts pertaining to chemical reactions. Plachek, Wigner and Weiskopf have worked up the theory of dispersion of light and have done important research in atomic nucleus physics.

The Aryan physicists—Heisenberg and Sommerfeld and others—who remained in Germany found themselves hounded. For recognizing modern science and especially for recognizing the "non-Aryan" theory of relativity, they were given the sobriquet of Weisse Juden. Sommerfeld was compelled to give up his chair in the University of München, where for over thirty years he had trained a brilliant group of young physicists.

As a result German physics lost its leading role in world science.

In Fascist Italy, too, the same thing took place. Fermi, the Nobel prize winner, fled from Italy; Bruno Rossi was expelled from the University of Padua by special decree in September, 1939. Rossetti, Segré and others likewise fled from their native land—Italy!

Before the advent of the Nazis the German physical journals (*Zeitschrift für Physik, Annalen der Physik, Physikalische Zeitschift*) had always served as the central organs of world science in this domain. The campaign of the Nazis against German science caused these journals to turn into meager notebooks frequently filled with third-rate work by the few physicists still remaining in Germany. The biggest of these journals, *Zeitschrift für Physik,* for instance, publishes two and one half issues a year instead of the six to seven issues it normally published in the 'twenties. In its time this journal attracted scientific papers from all over the world. In 1930 approximately 700 scientific papers were printed in its seven volumes, of which 280 were by foreign scientists (including about 80 by Soviet scientists). In 1938 only about 150 papers were printed, of which about 50 were by foreign authors. Thus this journal, once the central organ of world physics, has been transformed into a provincial journal. The following facts are very indicative. If we take the American journal *Physical Review,* which to this day serves as one of the most important scientific organs, and calculate the number of times German papers are cited in it we shall find that in 1932 about 35 per cent. of all the references referred to papers published in Germany. In 1939 only 15 per cent. of the references were to German papers, and even of these many pertained to papers written before the Nazis seized power.

The German physical journals are forced to publish such "scientific papers" as Stork's article: "The Structure of the Electron and Super-Conductivity." From the very first lines of this article it is obvious that the author tries to refute the modern theory of quantum mechanics. Although he asserts that the theory must be combined with experimental work he himself makes no attempt to base himself on modern experimental data.

Stork once received a Nobel prize in the past, but being connected with the ceramics industry it is many years since he has been working in the field of physics and he is therefore more than a quarter of a century behind modern physics. And it is Stork and Lenard who are Führers of "German physics."

Nazism has wreaked the same havoc with science in the territories which it has conquered.

An item in *Natur* (3711) points out that the dismissal of rectors and deans from the Czech universities by the German authorities shows that these universities, which have been closed for three years, will never be reopened.

In an article on German Kultur in Czecho-Slovakia *Natur* (No. 3706 of November 9, 1940) writes that the books and valuable appliances were removed from the Czech universities or simply squandered. The splendid equipment of the Institute of Physics in Poland also, as we know, met the same fate.

CORRESPONDENT IN USSR

QUOTATIONS

THE NUTRITION SOCIETY

ELSEWHERE in this issue we publish particulars of the newly formed Nutrition Society. In giving it, as we do, a whole-hearted welcome, we are not to be taken as either assenting to or dissenting from any general proposition about the desirability of forming new scientific societies—even in peacetime. For such projects to be praiseworthy at least two conditions must be satisfied. First, the subject of the new society's activity must be of importance—as the patent lawyers might say, it must have "content"; secondly,

there must be no other existing society that can cover the whole of the same ground equally well. On the second issue the new society can claim general support. The scientific attack on nutrition is, indeed, made from many directions—by medical practitioners, biochemists and physiologists, agriculturists and veterinarians, dietitians and sociologists, economists, statisticians, food technologists and probably others. In the specialized organizations to which these various experts belong questions of nutrition will be discussed with less or greater frequency. Indeed, in medical organization the attention given to dietary factors is certainly still on the increase. But even here, and in the excellent meetings arranged through its Nutrition Panel by the Food Group of the Society of Chemical Industry, it is obvious that there is a lack of integration. At the medical gathering the biochemist and laboratory worker are likely to be in the background, the agronomist and the practical dietitian probably entirely absent; at the Food Group meetings medical views are unlikely to be represented, and veterinarians are probably as invisible as statisticians. If the new society can bring together all the contributors to our growing knowledge of the relationship between food and health it will certainly achieve something not yet achieved—primarily, perhaps, because it has never been attempted, at all events in this country. And it has so far not been attempted because the importance of the subject is still too little appreciated in many of the most influential circles. It is doubtful if the emphasis given to-day to problems of feeding the community would have been nearly as marked but for the exigencies of wartime. In this sense, but we are sure in no other, the Nutrition Society may possibly be considered a child of Hitler. There can be little doubt to-day—least of all in the minds of medical practitioners—that nutrition has become a subject with "content." For the investigations of nutritional problems, special and other new techniques have been increasingly needed; for the discussion of problems and techniques alike a new organization has been found necessary.

That there are many gaps—some of them enormous—in our knowledge of human and animal nutrition would not be denied by the most craft-conscious nutritional scientist. The meetings or conferences to be organized by the new society—if one may judge by the proposed Cambridge meeting on "The Evaluation of Nutritional Status"—are just of the type calculated to reveal these gaps and therefore to point to ways of closing them. In that sense, if in no other, the foundation of the Nutrition Society may legitimately be regarded as a contribution to the national war effort, for it can not fail to give support to all those forces that, by stimulating investigation and helping to disseminate its results, make for improvements in the dietary of the people as a whole and therefore in their health, their vigor and their democratic independence.—*The British Medical Journal.*

SCIENTIFIC BOOKS

THE HARVARD BOOKS ON ASTRONOMY

TWENTY years ago Harlow Shapley became the director of the Harvard College Observatory. A young man himself (then only 36), he chose other young men to work with him. As director he elected to delegate to the younger men responsibility for plans as well as for execution of the plans. He encouraged them to undertake research and found the money to support their projects. As the years have passed, he has brought to Harvard Observatory that air of critical, original thought, that intellectual ferment that can perhaps best be described as an "atmosphere of research."

Realizing the need for a series of modern authoritative books on the various fields of astronomy which might be read by laymen, beginning students and amateur astronomers, he set his men to work. Nine books were planned, and fourteen authors have been writing them. In each case, the authors were chosen because of their competence in the particular field. Serving as editors are Dr. Shapley and one of his young men, Dr. Bart J. Bok; this may be taken as a guarantee of the quality of the books. The Blakiston Company of Philadelphia is publishing the series.

The first four books of the series have appeared. If the later volumes maintain the high standard set by these four, the series will be an outstanding success. The volumes at hand are attractively bound in a red water-resisting material. Each has 200 or more pages of clear easily read print and excellent illustrations. Especially to be commended is the generous use of photographs of astronomers, past and present, each picture appearing near the point at which the man's work is mentioned in the text.

The progress of astronomy is so rapid that it is difficult to publish a book that is truly up-to-date. These volumes are! Furthermore, they are inexpensive and readable; they may be read with pleasure and profit by any person with a high-school education.