selection."[7] The curtailment of Germany military psychology in the emergency seems to support the judgment of the American military psychologists.

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TRANSLITERATION OF ENGLISH NAMES IN RUSSIAN

IF the transliteration of Russian names into English is a mess, that of English (and other) names into Russian is doubly so. The Russian alphabet, with all other Slavic alphabets except the Polish, has no *w*, which is of little consequence, its place being taken by *v* (as it is, more or less, in the pronunciation of many English words); but for some strange reason the Russians in general do not transliterate the *w* in English names by *v* (though they do so in various German words), but by *u*. Thus Wendell Willkie is "Uendel Uilki," New York is "Niu Iork," Shaw is "Šo," etc. But this is not all. For some unknown reason the Russian, alone among the Slavic and other European languages, has no *h*, though the sound is present in the Ukrainian and other Russian dialects. Thus Houston, for instance, would be given as "Giustn," Ohio as "Ogio," Hall as "Gol," etc. There is also no *th*, it being replaced by *f*, so that Thomas is "Foma," etc. An effort furthermore is to write foreign names phonetically, which involves further corruptions.

It is plain that to science all this will be of serious and growing disadvantage, as it must be of much impediment to foreigners learning Russian, as well as to Russian youth who learn foreign languages.

The remedy, at least for scientific publications and catalogues, would seem to be fairly simple—the printing by the Russians of all foreign names as they are and in italics; and the general adoption of the letter *h*. The all-powerful Academy of Sciences of the U. S. S. R. could readily effect these changes and they would be very much to its credit.

The Russian alphabet, as is well known, was taken, with orthodox Christianity, from Byzantium, and is essentially the Greek (Ionian) alphabet; but the Greek had both the sound of *h* and its alphabetic representation. The Greek too had (and has) a special letter for *th*.

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ARTHUR WILLIS GOODSPEED

IN his excellent obituary of Arthur Willis Goodspeed,[1] Horace C. Richards pays tribute to Goodspeed's important pioneer work with x-rays. It is noteworthy that Goodspeed's profound interest in the physical properties of x-rays and in their practical applications was probably due to the fact that he *almost* discovered the phenomenon himself six years before Röntgen. This incident is described in my biography of Wilhelm Conrad Röntgen,[2] from which I quote:

> Goodspeed and a friend by the name of W. N. Jennings were photographing electric sparks and brush discharges on the evening of February 22, 1890. After some such experiments had been completed, the table was still littered with loaded plate holders and other apparatus when Goodspeed brought out some Crookes tubes and demonstrated them to Jennings. The next day, Jennings reported that when the plates were developed he had found a very curious phenomenon: two round discs superimposed upon the spark tracings on the photographic negative. No one could explain this curious effect, and the plates were put aside with other freak photographs and were forgotten. Six years later, after the discovery of the roentgen rays had been announced, these negatives were unearthed and reexamined. Another exposure was made with the same apparatus and under similar conditions, and the results were the same; that is, two discs with a sharp boundary on one side and a blurred boundary on the other side were visible on the plate. Goodspeed concluded a lecture on roentgen rays at the University of Pennsylvania on February 22, 1896, with the story of his early experiments, and said: "We can claim no merit for the discovery, for no discovery was made. All we ask is that you remember, gentlemen, that six years ago, day for day, the first picture in the world by cathodic rays was taken in the Physical Laboratory of the University of Pennsylvania."

Before publishing this account an inquiry in regard to the authenticity of the reports of this event brought from Goodspeed the following answer:

> PHILADELPHIA, February 15, 1929
>
> . . . The accidental roentgen effect which W. N. Jennings and I produced in 1890 was real and authentic. Because of our laxity in not following the matter up we do not claim any credit whatsoever, but the facts are as stated in such articles as you may have read.

CLEVELAND CLINIC FOUNDATION OTTO GLASSER

QUOTATION

POOLING RESEARCH

SIR JOHN ANDERSON'S visit to Washington and Ottawa marks further progress in a movement which began long before the United States entered the war and which has already yielded fruitful results. The immediate object is to set up a committee of scientists to act as a clearing house for information on scientific research. The committee would be formed, to begin with, by the Governments of Great Britain, the United States and Canada; but it is hoped that in due course the participation of other Governments will be secured

[7] The Staff, Personnel Research Section, Classification and Replacement Branch, The Adjutant General's Office, SCIENCE, 97, 473–478, 1943.

[1] SCIENCE, 98: 125, August 6, 1943.

[2] Springfield, Ill., Charles C Thomas, 1934.

and that the committee's work will be extended to deal with the needs of peace as well as with those of war. So far as the Governments are concerned the interchange of information has been as complete as the cooperation in the field. Even at a time when it seemed unlikely that the United States would participate in the actual fighting, the information acquired by the British forces and tested by experience in war was freely communicated to the American authorities and proved invaluable when the United States became an active ally. As the event showed, British science, in aviation, in the use of radio, in the manufacture of explosives and in many other matters, was well ahead of German, although for long years all the efforts of German scientists, like those of every other profession in Germany, had been concentrated on preparation for war.

This mutual Anglo-American aid has not been confined to Government agencies. In 1940, at the invitation of President Roosevelt, a British scientific mission under Sir Henry Tizard visited the United States and discussed ways and means of sharing scientific and technical information, and active cooperation was established with American men of science. Canada also took a hand, and Professor R. H. Fowler, then working with the National Research Council of Canada, helped to bring Canadian science into the tripartite arrangement. In the spring of 1941 Dr. Conant, the eminent chemist who is president of Harvard University, visited this country to promote the closest possible collaboration between the National Defense Research Association of the United States and the corresponding organizations in Great Britain. Since America came into the war, this intercourse and interchange has become even more intimate. By an agreement of January 1, 1942, each Government undertook at its own cost to obtain from its nationals such information and manufacturing rights as the other Government may require. These arrangements will be facilitated if, as the result of Sir John Anderson's mission, a regular clearing house is established to enable scientists in each country to keep in close touch with what is being done in the others. Such a clearing house, especially when it is extended to embrace the other countries which play a leading part in discovery and invention, will obviously be no less useful in peace than in war.—*The Times*, London, August 11.

SCIENTIFIC BOOKS

GASES AND VAPORS

The Adsorption of Gases and Vapors. Volume I. *Physical Adsorption.* By STEPHEN BRUNAUER. 511 pp. Princeton, N. J.: Princeton University Press. $7.50.

IN the preface to this volume the author states that he had considered two methods of treating his subject. By the first method he would marshall the observations and data gathered by the hundreds of investigators who have studied the adsorptive properties of charcoal, silica gel, metals, oxides and the many other important adsorbents. By the second method he would survey and discuss the attempts that had been made to analyze these observations and data in order to elucidate the nature of the adsorption process. He finally chose the second method, but he adds:

> Had I started the writing of this book a year later, I would doubtless have adopted the more practical approach because of its more direct relation to the needs of the war industry, but on the day of Pearl Harbor the greater part of this book was already written. As it is, it may prove to be useful in the training of scientists and technicians in colleges. Besides, a good practical chemist knows how to put science to use, and so perhaps this book will also find its way eventually into the stream of the industrial production of our nation.

The reader, in spite of Pearl Harbor, will, I think, be glad that the author chose the second alternative. In McBain's "The Sorption of Gases and Vapours by Solids" we already have a lively and stimulating treatment of adsorption from the phenomenological point of view; although a second edition of this eleven-year-old book is now long overdue and much to be desired. On the other hand, there is no up-to-date, thoroughgoing treatise on the theories of adsorption, and this Dr. Brunauer has now provided.

The author has further delimited his field by discussing only *physical* adsorption in this volume, except for the introductory chapters; he expresses the hope that some day he may write a second volume on chemical adsorption, but remarks that this

> . . . must wait until the end of the war. *Inter arma silent musae.* The writing of such a book is a long and time consuming process incompatible with present urgent work connected with the war. There is not much point in writing science, unless we make the world first safe for science.

A brief outline of the contents is as follows:

The introductory chapters present a selection of the important data on adsorption and a discussion of the experimental methods by which these data have been obtained. There follow three scholarly chapters on the various theories of adsorption, the derivation from them of equations for the adsorption isotherm, and the success of these equations in the representation of the observed data. Then come two chapters on the heat of adsorption and two on the surface of the