during operations. American pharmacologists and physicians will rightly wonder where Sir George obtained his information of the discovery of anesthesia and whether his particular brand of information did a service to the cause of the Anglo-American scientific alliance.

THEODORE KOPPANYI

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CEMENTING SINO-AMERICAN FRIENDSHIP

In the April 17 issue of SCIENCE was an appeal by Morris F. Shaffer to cement the bonds between Chinese and American scientists the same as is being done between American and British scientists. In the spirit of this appeal I recently turned over to a Chinese student of algae a number of reprints on subjects in his field. His deep appreciation of this contribution to the rebuilding of his working library, which was lost to the Japanese in Hongkong, indicates a concrete way American scientists can express their desire to "preserve the scientific heritage of the whole world against the barbarism and obscurantism of Fascist ideology."

Few scientists keep all the reprints and other scientific publications which they receive. This discarded material, however, is a potentially valuable nucleus for the rebuilding of private and institutional libraries now lost or to be lost or destroyed as a result of the present war. As China could live on what America wastes, so Chinese scientists could thrive on what we throw away. Because the nation-wide campaign to gather waste paper may be instrumental in destroying much potentially valuable scientific literature, it would seem appropriate for all internationally minded scientists to begin now to lay aside the material they do not want so that it may be assembled and put to use at the end of the conflict now raging. There is at present no organization receiving and storing such unneeded literature for future distribution, but if every one will make such an accumulation, surely some organization will eventually take over the task, and this material will become a useful tool in the rebuilding of a better world and in cementing the ties between American and Chinese scientists.

EGBERT H. WALKER

SMITHSONIAN INSTITUTION

OUOTATIONS

CONTRIBUTIONS TO SCIENCE OF THE JOHNS HOPKINS UNIVERSITY

A NEW and striking picture of the scientific leadership of the university is offered by a survey of "American Men of Science," a biographical dictionary containing in its latest edition 28,000 names, selected for proven scientific achievement.

By a nation-wide vote, about five per cent. of those named have been starred for special distinction. Taking chemistry as representative of the sciences, one finds that stars have been awarded to 209 men who have received their doctor of philosophy degree at American educational institutions. Of these 209, 165 received their degree at privately endowed institutions and only 44 at state-supported universities.

Five institutions alone boast 126, or substantially more than half, of the starred names. And of these five, Harvard, Chicago, Yale, Columbia and Johns Hopkins, Johns Hopkins is the highest! Johns Hopkins has 31, Harvard 28, Chicago 23, Yale 23, and Columbia 21.

That the Hopkins' scientific leadership has been felt long in America's key industries is no secret. The first laboratory for research on petroleum was started by a Hopkins graduate. Other Hopkins scientists since then have devoted their efforts to improving upon refining processes.

In addition, an increasing amount of time now is

being devoted by Hopkins men to fundamental problems of the petroleum industry, such as studies upon the origin of petroleum and the problem of possible exhaustion of reserves: new and unexpected methods are being discovered for producing high-grade gasoline from agricultural products.

The mechanism of the cracking process is being examined and the applications of catalysis to the production of better fuels and lubricants are being considered. In the present emergency, especial emphasis is being placed by Hopkins researchers upon the production of improved aviation fuels, usually by the processing of low-grade fuels, and upon the study of processes of wear and corrosion, which attack the life of military machines.

Other alumni are working hard on the exploitation of coal-tar and petroleum by-products, pharmaceutical products, the food industries, and in special applications, such as solvents, lacquers, refrigerants, antifreezes, explosives, flavors, perfumes, fertilizers, insecticides, dyes and photography.

Much research, in fact, is going on at the Homewood campus, itself. So secret are these studies and so vital to the national security that armed guards now patrol the grounds surrounding the chemistry and physics buildings.

Hopkins graduates and the university's faculty alike are playing an important role in America's all-out war effort.—The Johns Hopkins University Gazette.