"The alliance takes the form of what is known as "The Industrial Fellowship System.' According to this system, an individual or a company having a problem requiring solution may become the donor of a fellowship by contributing to the Institute a definite sum of money for a period of not less than one year. This money is used to pay the salary of the man or men selected to carry out the investigation desired, and the Institute furnishes such facilities as are necessary for the conduct of the work. The results obtained belong exclusively to the donor of the fellowship."

The idea of this system of practical co-operation between science and industry was formulated by Robert Kennedy Duncan, the late Director of the Mellon Institute, in 1906, while attending the Sixth International Congress of Applied Chemistry in Rome.

"In 1911, Dr. Duncan was called to the University of Pittsburg to inaugurate the system in the Department of Industrial Research, and the working of the fellowships began in a temporary building erected at a cost of about \$10,000. In March, 1913, Messrs. Andrew William Mellon and Richard Beatty Mellon, impressed by the practical value of the system, both to industry and to learning, established it on a permanent basis through the gift of over half a million dollars. While the Institute is an integral part of the University of Pittsburg and works in close sympathetic accord with it, it possesses an endowment of its own and is under its own management. The present annual expenditure for salaries and maintenance is over \$150,000.

"The Company obtains from the Institute such research laboratory facilities as but few industrial concerns possess. Even more important, it obtains complete library facilities, which are so valuable for research work."

There is a scarcity of men gifted with the genius for research, and it requires much experience in selecting suitable men and in training them to the desirable degree of efficiency after having determined the special qualities required. Important qualifications in industrial researchers are keenness, creative power, and confidence; these are often unconsidered by manufacturers, who, in endeavoring to select a research chemist, are likely to regard every chemist as a qualified scientific scout. The men who are best trained for a particular problem are carefully chosen by the Institute, and these work under the supervision of a staff experienced in handling in-dustrial research problems. The Company thus secures at a comparatively small cost ideal conditions for working out industrial problems which would cost any single company probably from \$60,000 to \$70,000 each year to duplicate in a laboratory which it might establish in connection with its own factory.

"There is about university work, as differentiated from the factory, freedom from interference, correct judg ments concerning progress, and an atmosphere sympathetic to research.

"All these advantages, laboratory, library, consultative and inspirational, together with the supervision and administration of these Fellowships, the Institute offers gratuitously to any company having important problems offering a reasonable chance of solution, and it undertakes, as well, to surround the researches with the necessary secrecy." The University, under the agreement, fulfils its function in increasing the sum of knowledge; the fact that it is useful knowledge does not make it any less valuable. Furthermore, the right, after a reasonable time, to publish such knowledge is assured to the University. The University also obtains a highly trained staff of specialists as a faculty for a School of Chemistry and Chemical Engineering. Then, too, the University undoubtedly feels the stimulating influence of having in its midst a large body of trained investigators engaged in research work.

"At the present time (March 1st, 1916) [Science 43, 453 (March 31st, 1916)] there are thirty-six fellowships and two additional ones have recently been arranged for, to begin later in the year. Sixty-three industrial fellows are engaged on the fellowships now in operation. The growth of the Institute has about reached the stage where we shall be obliged to decline further industrial investigations for the present, since our laboratories are almost filled up to capacity.

".... The experience of the industrial research institutions now in operation, which is certain to be drawn upon heavily in the movement to make the research work of the country national in both scope and effort, should be readily available for use by their prospective allies. Their entrance into this field should be warmly welcomed. No greater good fortune could come to the Mellon Institute, for example, than a division of labors with a number of similarly well-founded establishments."

Still in the tentative stage is the progress of the Committee of One Hundred on Research. The Pacific Coast sub-committee has recently expressed its prospective policy in the following terms: [Science 43, 457 (March 31st, 1916).]

"1. The relation of advances in pure and applied knowledge to intellectual and economic progress and to good government should be made clear to individuals and to communities at every opportunity.

"2. The publication of timely and accurate popular articles making known to the people the results of research should be encouraged.

"3. The Committee should be informed concerning researches now in progress in the Pacific region. This information need not be carried to extreme detail.

"4. The Committee should lend assistance to investigators who are handicapped in any way. In special cases it may be possible to assist with grants of money from the American Association, or from other sources."

Among the subjects which have given this Committee concern is the responsibility of scientists in the United States for the progress of research during and immediately following the European war. Will the impoverishment of governments curtail the support of science in Europe, or will the demonstrated efficiency of scientific methods induce the governments to maintain scientific research at a sacrifice of something else? Whatever the outcome may be, the obligations of American men and women of science to push forward the boundaries of knowledge are certain to be increased.

Within the universities themselves there seems also to be a growing recognition of the responsibility and privilege of producing new knowledge, which has been well expressed by Professor Wilson [Science 42, 630 (November 5th, 1915)] of Columbia University:--

"We have heard of late an intimation that the universities have not been so much leaders of progress as 'depositories of stationary thought.' Well, depositories