create them but oftener operates to weaken or destroy them.

Human relationships in industry we have now and always have had, and, whether recognized or not, they have caused quite as much trouble as purely economic conditions, for the state of a laborer's mind, more even than the state of his purse, determines his acts.

No industrial question is of greater importance than human relations in industry, and none is more complex nor baffling. Yet no pains can be spared, or are being spared, to find remedial measures. Many hopeful schemes for a better human organization of industry have been suggested and are under trial, some fortunately with encouraging promise.

The dominant bearing of this discussion on technical education is this: Our technical schools are training the future brain workers and managers of industry. We may, therefore, well ask ourselves, at this time, if there is anything we can do beyond what we are now doing to train our students to understand more fundamentally and to meet more successfully the gravest of all their future repsonsibilities, the organization and management of men. A responsibility which they and we owe, not industry alone, but the whole economic, social, and political stability of the nation.

ERNEST FOX NICHOLS

SCIENCE AND COMMUNITY TRUSTS

THE Research Information Service of the National Research Council recently compiled available information about funds for scientific research. It appears that there are hundreds of special funds, trusts or foundations for the encouragement or support of research in the mathematical, physical, and biological sciences, and their applications in engineering, medicine, agriculture and other useful arts. The chief uses of these moneys are prizes, medals, research scholarships or fellowships, grants, sustaining appropriations, and endowments.

So numerous have been the requests to the Research Council for information about sources of research funds, availability of support for specific projects, and mode of administration of particular trusts or foundations that the Research Information Service has created a special file for this information which it is proposed to keep up to date for the benefit of those who may desire to use it. Furthermore, in order to give wider publicity to the immediately available information, the Council has issued a bulletin under the title, "Funds available in 1920 in the United States of America for the encouragement of scientific research." This publication has been distributed widely to American scientists and to those who are interested in furthering the development of science.¹

In the course of search for data on research funds, it was discovered that some of the recently created community foundations or trusts control funds which may be used, at the discretion of their distributing boards, for scientific surveys or for research. If the resources of community foundations be added to the funds at present listed by the Research Information Service as primarily for research in the natural sciences, the total approximates five hundred million dollars. It is estimated that for the encouragement and support of scientific research through medals. prizes, grants and research scholarships and fellowships, between forty and fifty million dollars is spent in the United States annually.

The "community trust" idea is of peculiar interest and significance in this connection. In the year 1914 certain wise and far-sighted citizens of Cleveland decided to organize for the benefit of the community a trust to be known as the Cleveland Foundation. This, the original community trust, has grown to a fund of approximately one hundred million dollars, either given or bequeathed. Following the lead of Cleveland, more than forty other American cities have organized similar trusts, primarily to assure greater security of principal, flexibility in the use of income, and prevention of obsolescence.

¹ Inquiries concerning research funds should be addressed to the National Research Council, Information Service, 1701 Massachusetts Avenue, Washington, D. C. The seriousness of the risk of obsolescence and the enormous economic waste which results therefrom are effectively presented by Mr. Frank J. Parsons, Director of the New York Community Trust:

Judge F. H. Goff, originator of the community trust plan, is authority for the statement that in England alone there are some 40,000 foundations or trusts with fixed objects. The great majority of these bequests have become obsolescent by reason of social or economic changes. The situation finally became so serious in England that Parliament passed an Act, the intent of which was to revive the trusts and renew their usefulness.

The United States, although young, is by ne means free from illustrations of the folly of making charitable gifts with fixed objects. Benjamin Franklin, one of the wisest of Americans, set aside a certain sum of money in his will, to be used only for the maintenance and benefit of a certain type of artisan, numerous at the time, but non-existent to-day because of changes in social conditions and the introduction of machinery. Wise in his own generation, Franklin failed when he tried to provide for the indefinite future.

Prior to 1850 Bryan Mullanphy, a wealthy lawyer and at one time mayor of St. Louis, personally helped hundreds of travelers who became stranded in his city on their way to the great undeveloped West. When he died it was found that he had left one third of all his property to the City of St. Louis, as trustee, to "aid and assist worthy and distressed travelers and emigrants coming to the City of St. Louis bona fide to settle for a home in the West." His act was greatly commended and all thought he had wisely applied his charity to meet a great need; yet fifteen years later the railroads had pushed into the West far beyond St. Louis, and the number of needy travelers coming within the terms of the bounty of Mullanphy's will was greatly diminished and is now practically nil. The estate now amounts to \$975,000, and the three Commissioners having the management of the city's trust are still bound by the original terms of the will as laid down in 1851.

In 1907 Robert N. Carson, of Philadelphia, left \$3,500,000 for the care and education of "poor white healthy girls, both of whose parents shall be deceased," and in 1909 Charles E. Ellis, also of Philadelphia, left \$4,500,000 for "full orphan or fatherless girls." The hampering and restric-

tive conditions of the wills in each case were such, however, that after the lapse of more than ten years the trustees of these two great gifts are caring for but 114 girls, while the funds are said to be sufficient to provide for from 600 to 1,000 girls.²

The following "illustrative purposes" are quoted from the Resolution and Declaration of Trust creating the New York Community Trust:

(a) For assisting public educational, charitable or benevolent institutions, whether supported wholly or in part by private donations or by public taxation;

(b) For promoting scientific research for the advancement of human knowledge and the alleviation of human suffering or the suffering of animals;

(c) For the care of the sick, aged and helpless;(d) For the care of needy men, women and

children; (e) For aiding in the reformation of (1) victims of narcotics, drugs and intoxicating liquors, (2) released inmates of penal and reformatory institutions, and (3) wayward or delinquent persons;

(f) For the improvement of living and working conditions:

(g) For providing facilities for public recreation;

(h) For the encouragement of social and domestic hygiene;

(i) For the encouragement of sanitation and measures for the prevention of disease;

(j) For investigating or promoting the investigation of or research into the causes of ignorance, poverty and vice, preventing the operation of such causes, and remedying or ameliorating the conditions resulting therefrom.

Science as well as charity has its "dead hand" trusts. It is wholly impossible for anyone to predict future conditions or needs. Consequently the community trust idea should interest all who desire to promote the public welfare with minimum risk of having their gifts pass into desuetude. Many of the existing foundations and corporations which bear the names of individuals are in principle

² These statements are in part quoted from Mr. Parsons and in part paraphrased for the sake of brevity. community trusts, but they have the temporary disadvantage of intimate association with the personality or memory of a particular family or individual. They therefore are somewhat less likely to receive during their early history such gifts as readily come to the community trust which bears the name of a city or state.

ROBERT M. YERKES

NATIONAL RESEARCH COUNCIL

SCIENTIFIC EVENTS

THE MEDICAL SCHOOL OF COLUMBIA UNI-VERSITY AND THE PRESBYTERIAN HOSPITAL

It has been announced from Columbia University that a permanent alliance has been effected between the university and the Presbyterian Hospital, to provide a medical center, and the large sums needed to carry the plan into effect, have been provided by gift.

Under the terms of the agreement, the university and the hospital each continue their independent existence and control. The medical school, now occupying the site bounded by 59th and 60th Streets and Tenth Avenue, and the hospital, now occupying the site between Madison and Park Avenues, 69th and 70th Streets, are as soon as possible to be provided with new and thoroughly equipped buildings upon a common site. The professional staff of the hospital is to consist of professors and other members of the faculty of the medical school, to be appointed by the hospital upon the nomination of the university. For the oversight of the common interests of the university and the hospital in the new undertaking, an administrative board is established, to consist of three representatives of the trustees of the university and three representatives of the managers of the hospital. The first administrative board is to consist of Messrs. John G. Milburn, Walter B. James, and William Barclay Parsons, representing the university, and Edward S. Harkness, Henry W. deForest and William Sloane, representing the hospital.

The large sums needed to enable Columbia University to bear its share in this enterprise, have been provided in the following manner:

\$5,000,000 for endowment from the estate of the late Joseph R. DeLamar.

\$3,000,000 for the construction of new buildings and their equipment, from the Carnegie Corporation, the General Education Board and the Rockefeller Foundation, each of which has pledged \$1,000,000.

Land located between 165th and 168th Streets, Broadway and Fort Washington Avenue and valued at not less than \$1,000,000, which is the gift of a donor who wishes to remain anonymous.

An additional sum of \$1,000,000 for endowment from another anonymous donor,

GIFTS BY CARNEGIE CORPORATION TO CAR-NEGIE INSTITUTES OF PITTSBURGH

As a result of joint conferences held by the trustees, respectively, of the Carnegie Corporation of New York, the Carnegie Institute of Pittsburgh and the Carnegie Institute of Technology, a definite agreement has been entered into by the Carnegie Corporation to give an additional sum of more than \$17,000,000 over a period of years for maintenance and development of the institutes.

According to a statement issued by the Carnegie Corporation, the Carnegie Institute of Technology now has about 4,000 students. They come from every state in the Union and from all parts of the world. The plan now to be carried out contemplates the full completion of Mr. Carnegie's gift in developing at Pittsburgh a great technical institute available for the young men, and particularly those in moderate circumstances, not only of the Pittsburgh district, but of the whole country. The plan is distinctly national in scope.

Under the arrangements now made, the institutions ultimately will have received from Mr. Carnegie, the corporation and other sources more than \$49,000,000. The financial program that has just been mapped out may be summarized as follows:

OUTRIGHT APPROPRIATIONS

\mathbf{For}	\mathbf{the}	Carnegie	Institute	of	Pitts-	
burgh:						
Additional endowment						\$2,000,000
Cash to be used at discretion of insti-						
	tute					672,888