

MASS EDUCATION

by BERTRAND BROWN¹

NEW S travels the seven seas by today's radio quicker than it traveled a city block by yesterday's post. Means for transmitting information are available on a scale hitherto undreamed of. An estimate of the Columbia Broadcasting System placed 16,026,620 radio sets in homes in the United States on January 1, 1932. As resources for the widespread communication of ideas, images and emotions have been invented, improved and brought into general use, they have been quickly utilized—both by industry to extend business and commerce and by innumerable organizations, public and private, national, sectional and local, to promote programs for the improvement of various phases of individual and community life. The accumulated value of money and effort expended through these channels is tremendous.

In varying degrees contributions have been made by these media to the advancement of popular knowledge in all fields of human endeavor. Notwithstanding this progress a vast amount of knowledge, long demonstrated as essential to the welfare of the individual and of the community, remains uninterpreted and therefore ungrasped and unapplied. "Ideas travel quickly enough in the upper and rarefied air of scholarship and highly trained minds but," as Nicholas Murray Butler recently observed, "they move with the sluggish slowness of a glacier over and among the great masses of the population whose habits and whose prejudices are deeply

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ingrained and whose outlook on life is limited by the walls of their own gardens.”

A notable example is present in the public health field, the expansion of which in the United States has been attended by the progressive use of channels which civilization has developed for the popular dissemination of information. There are few projects in the field of public health in the development of which mass education has not played an important part. Only through extensive circulation has any widespread application of health knowledge been secured. Mass education has thus been a significant ally in helping to decrease sickness and mortality and so to raise the vitality and working efficiency of the population. Media which modern invention has made available for popular education have thus made a contribution to the maintenance of national life, which it would be impossible to estimate.

A decade ago (May, 1923), in his last public address, the late Dr. Hermann Michael Biggs suggested eleven objectives for practical present-day public health effort, five of which are largely dependent for realization upon measures of mass education.

☞ Establishing for every individual the custom of obtaining a periodic physical examination, made by a competent physician.

☞ Further reduction in the death rate from the common infective diseases, such as tuberculosis, diphtheria, typhoid fever, scarlet fever, diarrheal diseases of infancy, and others.

☞ Through physical examination and instruction as to methods for retarding or arresting their progress, postponement of the age at which death occurs from the cardiovascular diseases and other diseases of later life.

☞ The prevention by education and law enforcement of new infections in the venereal diseases, and provision for more adequate treatment of syphilis.

¶ The extension of the educational work of the public health authorities as a most effective means of promoting the preservation of health and the prevention of disease.

While the inventive and engineering sciences have been evolving enormous facilities for the education of the masses, medical science has been discovering new knowledge whereby human sickness can be greatly lessened and the end of life postponed. Medical science and public health practice have eliminated any excuse for epidemics of such communicable diseases as typhoid fever, smallpox, scarlet fever and diphtheria. Yet diphtheria alone, among these preventable diseases, claimed in 1931 a needless toll of 5,738 lives in the United States registration area. While knowledge is available to prevent these deaths, in many so-called progressive communities it remains unapplied. And nowhere is it fully applied.²

In two certainties rest seemingly unlimited opportunities for continued fruitful effort in the popular dissemination of health education: first, the certainty that much sickness and many premature deaths could be prevented if knowledge which is at hand were universally circulated and applied; and second, the certainty that tools for the promulgation of this knowledge among the masses are available on a scale hitherto unprecedented.

ESSENTIAL STEPS IN MASS EDUCATION

How should the mass educator go about his task in order intelligently to select from the countless channels available for the dissemination of knowledge those which will be most useful for a specific purpose? The preoccupations of the public and of individuals are many. The range of interests com-

²"Public Health in New York State," report of the New York State Health Commission, appointed by ex-Governor Franklin D. Roosevelt. Albany, New York State Department of Health, 1932, chapter xvii.

peting for attention is vast. The methods of communicating ideas offer a wide sweep of choice. Achievement is apt to be accidental, haphazard and over costly, if the proposed educational effort is not planned in the light of all of the steps fundamentally present. These may be indicated by a four-part question: (a) *What facts and ideas must be secured*, (b) *to transmit through what media*, (c) *to what audiences*, (d) *to accomplish what objectives?*

Whether the educator is conscious of them or not, these four considerations (objectives, audiences, materials or information, and media of communication) are present in any reasoned process of education. Accordingly, they are present in any intelligently conducted mass educational effort, at whatever phase or cross section of human life it is directed—whether it is international, national or sectional in scope, whether it is conducted in a neighborhood of a great city or in a rural community or whether it is intended for a group, a family or an individual.

Not only are they always present; these four factors are *always* interdependent. It seems axiomatic, therefore, that mass educational effort can be planned and pursued effectively and economically only when each of these factors is considered not only as a separate element in the educational process but in its relation to the other elements present.

Always complex and intricate, the task of mass education is simplified only when each of these four fundamental steps is broken down into the isolated individual tasks which it implies.

I. OBJECTIVES

In order of procedure, the first step in outlining any mass education program is to define clearly and concisely the objectives of the effort. What Edgar Sydenstricker has said elsewhere of public health work applies aptly here. "If a

clear definition of each objective were insisted upon before any public health activity were undertaken, we would be working along many lines with a degree of intelligence in perspective and direction that would be more nearly commensurate with our enthusiasm in effort. And, knowing exactly and specifically what we want to accomplish, our choice of method and devising of ways would be more precisely suited to the task. Certainly, if any definite measurement of results is to be attempted, it is absolutely necessary to have the objective definitely set forth; otherwise we shall not know whether the objective has been reached nor can we measure the extent to which it has been attained.”³

When the objectives are expressed not only in terms of the ultimate ends which are to be obtained but also in terms of more practical intermediary objectives, the task is simplified. When the purposes of the educational effort are expressed in terms of particular activities, with first things put first and with specific indication of what presumably can be accomplished day by day, week by week, month by month and year by year, a “degree of intelligence in perspective” is implied which will assure “accomplishment without vague and wasted effort.”

The first step, then, is not only clearly to express the ultimate purposes of the effort, but to break down these ultimate objectives into the “manifold and interrelated” intermediary objectives, major and minor, which are strategic points in progressing step by step, activity by activity, toward accomplishment of the ultimate objectives.

II. AUDIENCES

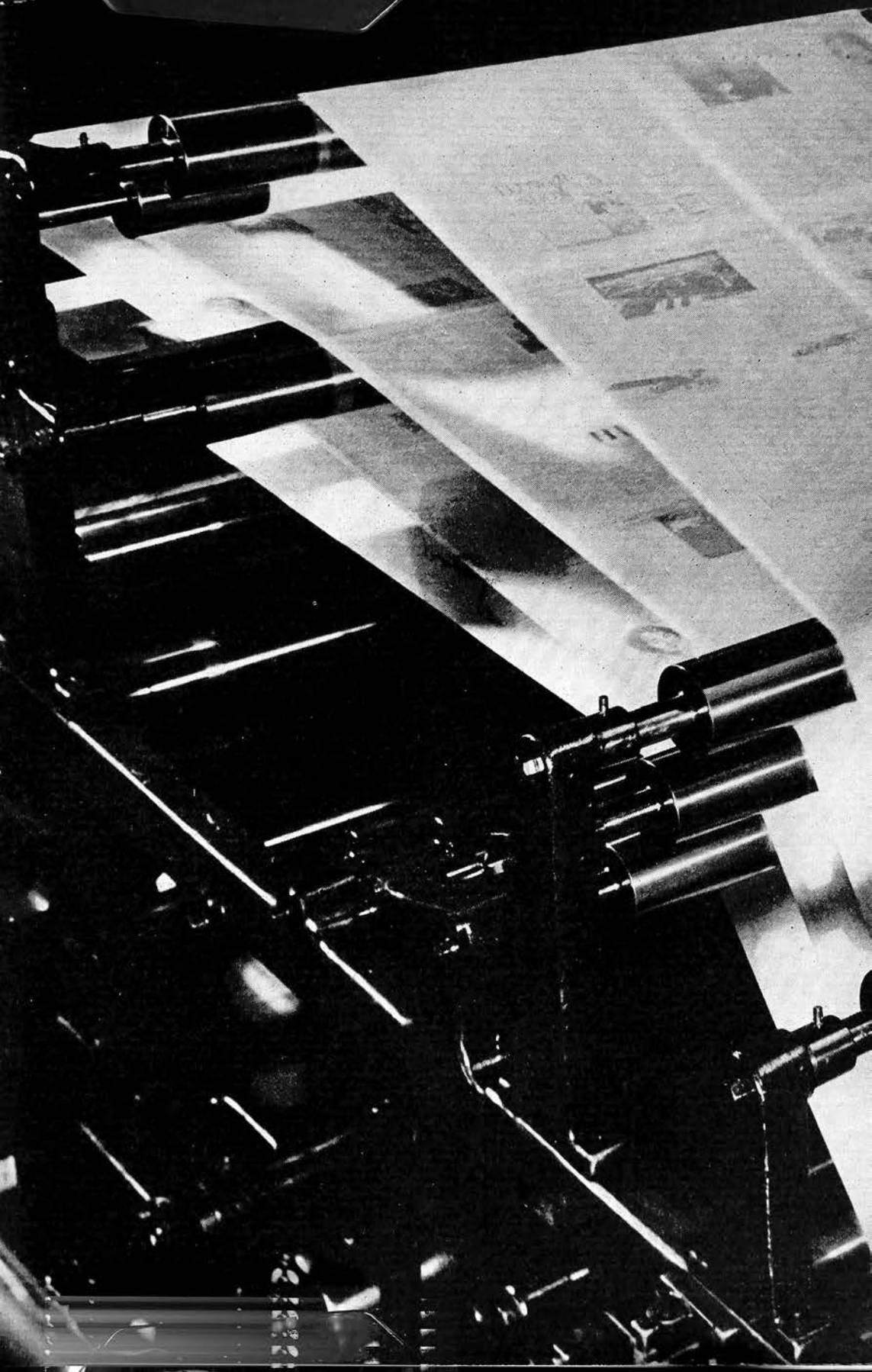
The accomplishment of any objective in mass education naturally depends upon influencing the mental attitudes and

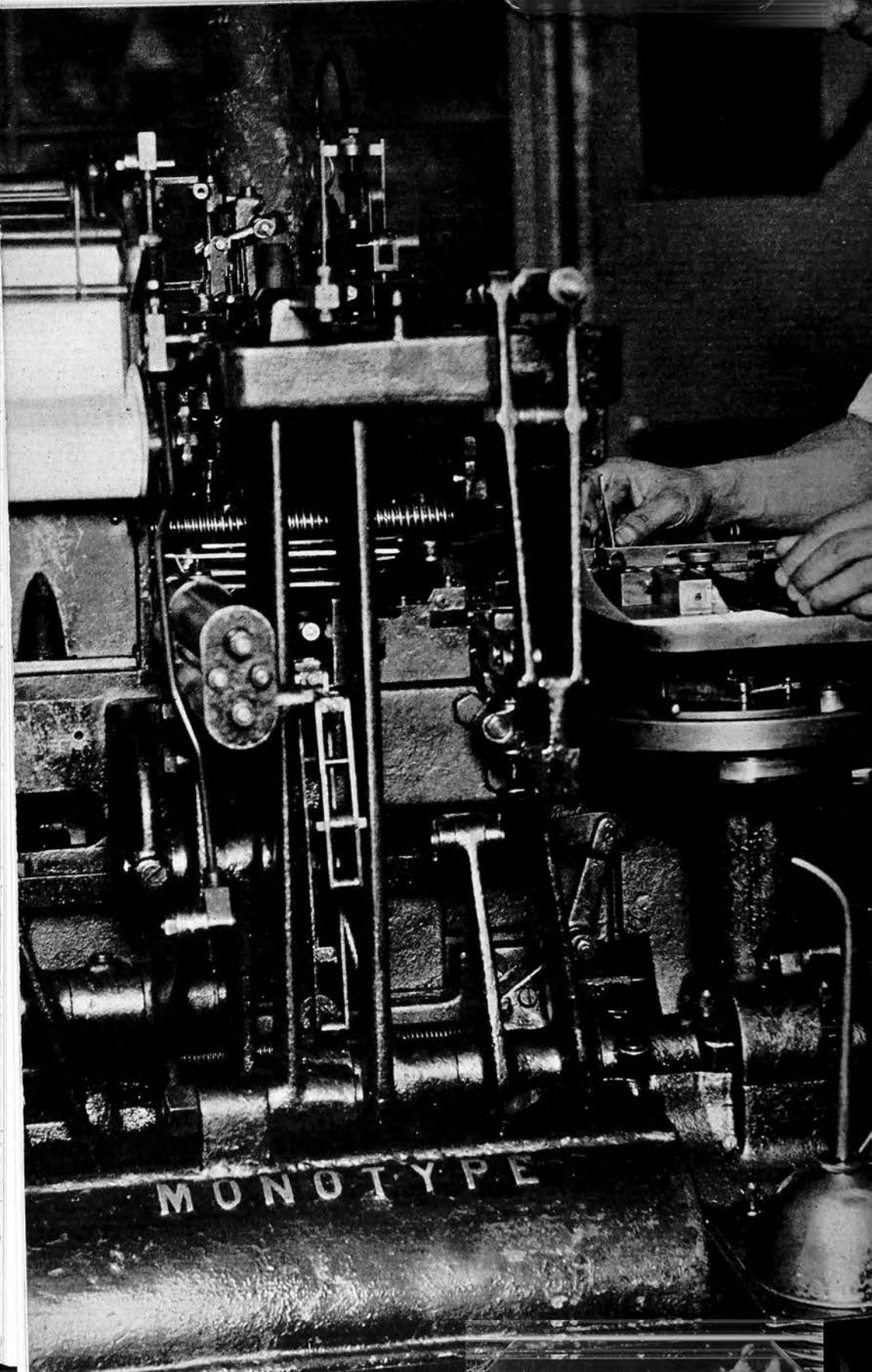
³Sydenstricker, Edgar: *The Measurement of Results of Public Health Work*. Milbank Memorial Fund *Annual Report*, 1926, chapter ii.

behavior of individuals—as separate entities and as members of families and groups. The second step, therefore, in outlining a mass education program is to determine as clearly and concisely as possible who the individuals are upon whose mental attitudes and behavior achievement of the proposed objective depends. Once chosen, these individuals compose the ideal potential audience for the intended mass educational effort.

Choice of such an audience would be difficult enough if one were limited to consideration of the comparative needs of different individuals for, and their possible receptivity to, information relating to the objective. But if the mass educational effort is to be economically and effectively pursued the prospective audience must necessarily be composed of individuals who are readily accessible through established channels of communication and who may be reached through social, political, business and other groups of which they are members. In each step of the analysis, however, people increasingly appear as individuals and in their relationships to other persons and as members of families; and the task of thus identifying them becomes increasingly simple. Thus, moreover, the all important human aspects of the mass educational process reveal themselves.

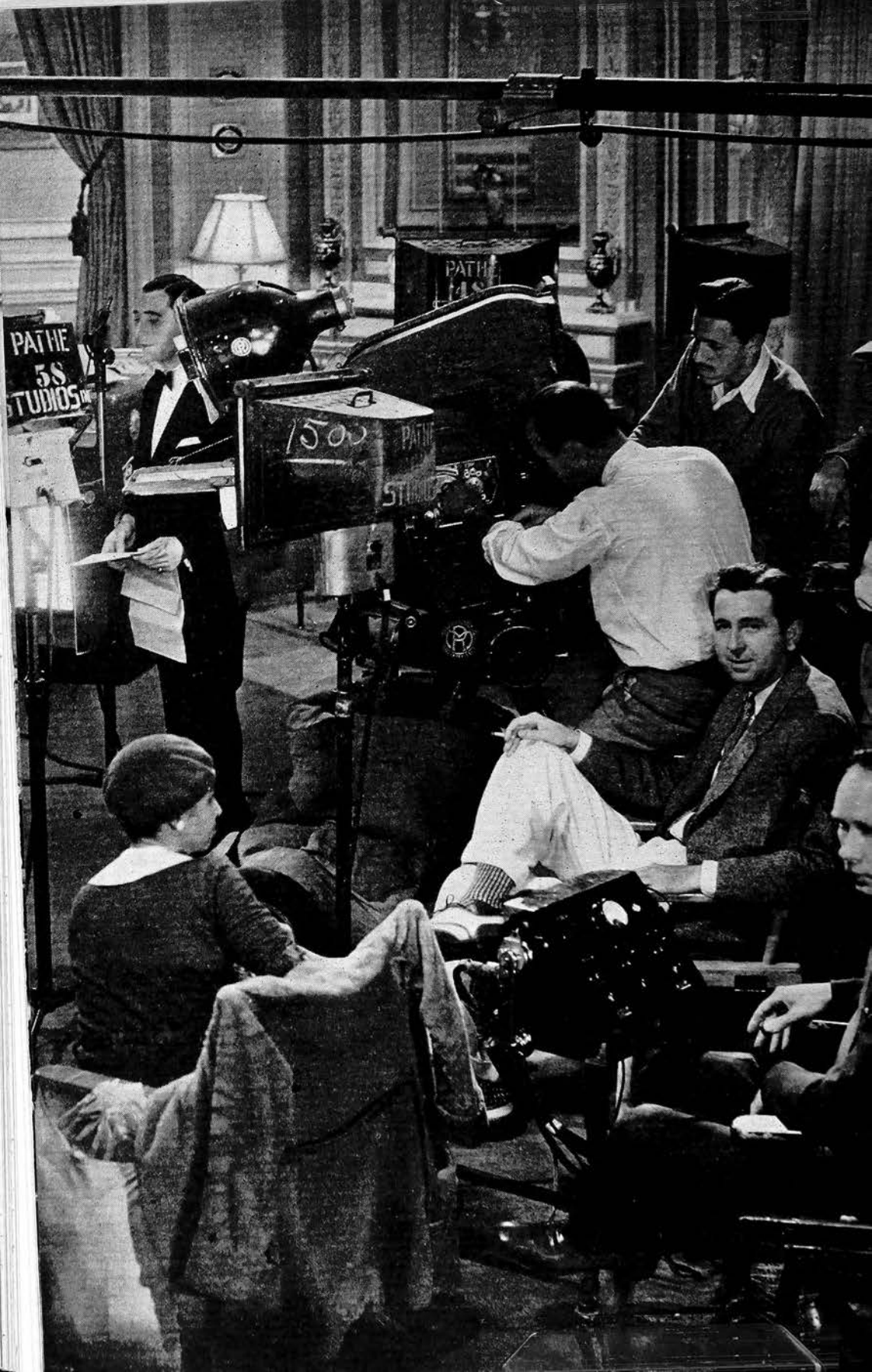
From the point of view of their accessibility through the available avenues of mass education and influence, individuals may be regarded merely as impressionable members of a mass or as members of existing occupational and social groups and classes. In rare instances they will be recognized as key persons who may be of special influence and assistance in helping to achieve the desired mass educational objective. When the inhabitants of a community are considered not only *en masse* but as members of groups and families and as individuals who have (or not) a definite bearing upon the





MONOTYPE













desired educational objective, much waste effort is obviated.

The individual in society "is neither the beginning nor the end but a link in the succession of life."⁴ Because of the "general impulse of men to live together," the interests of the individual are identified with or merged in the larger interests of many groups with which he feels indissolubly bound. Through 'imitative cohesion,' men are prompted to conform blindly to the traditions, beliefs and ways of the group, to approve of things because they are accepted and to disapprove simply because they are not, to be moved by the slogans, the stereotypes, the conventions, the idols of the tribe. Because ideas and emotions can often be most effectively communicated to a person through the influence of individual leaders whom he respects and of social groups and classes with which he is associated, these constitute preferred audiences for any mass educational effort.

Mass impression, that intangible mental attitude of the masses commonly called public opinion, is spun out of the minds of individuals 'lost' within the great body of mankind. This spinning is a progressive process, and a cumulative one, and the patterns woven are incessantly changing. Deliberate propaganda, or purposive mass impression, if persistently enough promulgated through appropriate channels to well chosen audiences, passes into the stream of conversation in the normal intercourse of daily life and becomes part of an accepted pattern of public opinion.⁵

III. INFORMATION

The third step in outlining a mass education program should provide for the accumulation, preparation and pre-

⁴MacIver, R. M.: *Society, Its Structure and Changes*. New York, Ray Long and Richard R. Smith, Inc., 1931, p. 20 and ff.

⁵Wiley, Malcolm M. and Rice, Stuart A.: *Communication Agencies and Social Life*. New York, McGraw-Hill Book Company, Inc., 1933, Part III.

sentation of such available information as it is believed will be useful in giving the proposed audiences a desired informed opinion. What will the prospective audience need to be told, and in what form, to secure its intelligent cooperation in achieving the desired objective?

Information constitutes the ammunition of the mass educational task. Success is dependent upon the authentic, convincing and persuasive quality of the information used. The steps in the educational process which Mark M. Jones has outlined as leading to action by the individual apply also to those that lead to action by individuals in the mass. He points out—

☞ that contacting an individual necessarily precedes any opportunity of informing him about an idea,

☞ that informing him precedes any possibility of interesting him,

☞ that upon his interest depends the individual's understanding of the idea,

☞ that his understanding of it necessarily precedes his reposing any enduring confidence in it, and

☞ that gaining an individual's confidence in an idea necessarily precedes securing his intelligent and enthusiastic cooperation in bringing it about.

Highly specialized are the tasks of assembling authentic information and of preparing and presenting it for publication so that when issued it will not only interest the individual and be clearly understood by him but will inspire his confidence and lead him to participate intelligently and enthusiastically in achieving a given purpose. These tasks call for the employment of many talents, trained skills and techniques. Because of the investments of money and of cooperative effort they involve, amateurism at any point may prove very costly.

However small their cost, the most expensive mass educational efforts are those which are unheard, unread and unseen. Too often publication is premature, before the material presented has been authenticated and put into a form which will not only engage the reader's attention and interest but be read and understood by him and gain his confidence and support.

Take, for example, the hypothetical case of Mr. Alan Blank, banker and leading citizen of Buckeye Falls. He is not accustomed to 'digging' for his information. He is used to getting it 'on a silver platter'—to having it meet him more than half way. His research faculties have been dulled by a continuous diet of books, magazines and newspapers—the contents of which must be 'full-baked' to have their media survive. He chooses to receive this 'predigested' literature and pays for it. He doesn't have enough time to read as much of it as he would like. When he receives gratuitously a body of information phrased in a writer's technical jargon, it is not surprising, therefore, that it fails to interest him. He fingers it, decides not to exercise the disciplinary concentration which a reading would require, lays it aside, forgets it and thus nullifies in so far as he and his influence are concerned the return on the investment of money and effort which have gone into it, from the initial research to the final mailing.

Mr. Blank's case is used to set forth the importance which the interpretation of information plays in the mass educational process. It should be a first principle that the thought and skill devoted to presenting information in a mass educational effort should be commensurate with the total amount of time and money invested in all of the several steps included in the process. The art of interpretation is one requiring its own specialized ability. The yield on the entire educa-

tional investment will be directly influenced by the skill of the interpreter in clearly and effectively setting forth to the intended audience information which has been accumulated because it was considered pertinent to the enlightenment of that audience.

There are three stages in the preparation of information for use in a mass education program—

☞ The accumulation of authentic data which it is believed will be germane and useful in giving the proposed audiences accurate information upon the subject at hand;

☞ Selection from the mass of available material such as may be useful in informing pertinent audiences and in influencing their mental attitudes and behavior; and subsequently the translation and presentation of that information into the vocabularies of these audiences; and

☞ Such rewriting, refinement, editing and polishing of this material as will make it most likely to attract the attention, engage the interest, be understood by, and secure the confidence and cooperation of, the proposed audiences, and as will make it available for transmission to them through the medium or media chosen for that purpose.

1. *Accumulation of authentic materials.* Much that has been taught and is being taught through the agencies of mass impression neither rests on any basis of scientific knowledge nor represents any extensive canvass of authoritative opinion. Health educators have been particularly gullible in their acceptance of health fads and half truths, particularly in much that has taught concerning personal hygiene.^{6,7} It is doubtful whether any enduring gain is ever effected by the publication of unsubstantiated material or by the misrep-

⁶Armstrong, Donald B., M.D.: Health Facts—What to Tell. *American Journal of Public Health*, March, 1932, xxii, No. 3, p. 271.

⁷Winslow, C.-E. A., Dr. P. H.: The Facts—How to Decide What is to be Told. *American Journal of Public Health*, June, 1929, xix, No. 6, p. 647.

resentation of substantiated data. Such wasteful effort can perhaps best be avoided by recognition on the part of the mass educator of the limitation of his function in the educational process. He is primarily a translator, an interpreter, a popularizer of information and opinion. If he acquires proficiency in the knowledge and skills required in the practice of his profession, and if he efficiently and economically employs its principles and techniques to a degree approaching adequacy to the opportunity which confronts him, he will need to obtain his subject matter from other specialists whose primary concern is fact-finding and the diagnosis and prognosis of problems in the field of his mass educational effort. Only thus can he feel assured that his educational materials have sufficient authoritative bases of fact and opinion to warrant their dissemination. But while asking and waiting for additional demonstrated or authoritatively recommended facts, which might be expressed in forms which would be readily comprehended by any normal child, mass educators can well utilize the vast present-day resources of communication in the further interpretation of knowledge long since fully tested and unanimously recommended.

"The conquest of nature, while not complete, has for the first time in history become sufficient to supply all men's needs," Sir James Arthur Salter, former director of the economic and finance section of the League of Nations, recently said before the Conference of Universities. "I do not advocate cessation of scientific research or technical training," he continued, "but the proper use of the gifts of science is now more important than their increase."

2. *Assortment and presentation of information.* Because the the mayor of an eastern city complained that he had been misquoted upon an earlier occasion, a reporter following a subsequent press conference took meticulous pains to quote

him verbatim. The resultant statement published as coming from the official well illustrates the need for the last stages mentioned above in the preparation of material for publication:

“Briefly, I may omit some minor points that I referred to this morning, but briefly, there was a discussion about the holders of the stock, the position of the stock with relation to the bonds, the future of the stocks, as to its value, the probable effects upon the stock by the disaffirming of the lease. A number of people—the holdings represented by the committee, about 11 or 12 per cent, I mean by this committee. The desirability of getting in a much increased number of security holders. This is on the part of the committee, so that the views of a larger group might be learned.

“And the history of the stock and the trend from time to time. They show the same disposition, in other words, a spirit of willingness to cooperate, a willingness to meet the city’s views and the city’s interest. How far that will go of course will develop as we go along.”

Only in heaven will publishable manuscripts flow uniformly from tongues and pens. “The rule of clearness,” states Christopher Morley, “is not to write so that the reader can understand, but so that he cannot possibly misunderstand.”

If information is to be presented so that it will be unmistakably clear to the masses, it must be phrased in language which will be readily understood by them. Publications can justify their existence only by being read. Technical language should be tabooed—though not at the expense of accuracy. Writing may be popular in a finer sense of the word. Information can be made available to much wider audiences if words and expressions which can be generally understood are substituted for technical phraseology.

It has been said that it is a common mistake of technical minds to assume that certain facts necessary to the under-

standing of their subject, because familiar to them, are obvious to everyone; and that this factor, perhaps greater than any other, has been responsible for the tardy application by mankind of the knowledge acquired by the more learned.

Why use forbidding technical phraseology knowing in advance that it will curtail the circle of readers? Where, if not here, is the place to demonstrate that a subject can be presented "intelligently and authoritatively without the use of heavy technical weapons so often brandished merely to impress the reader," rather than to inform him?

The rank and file will always be mystified by that which they do not understand. But increasingly laymen are refusing to be confused by strange words and signs and are suspicious of that person's grasp of any subject upon which he is unable to write or talk so clearly that he cannot possibly be misunderstood.

3. *'Englishing,' editing and publishing.* Commercial publishers could not survive by publishing manuscripts in an unfinished stage. A finishing touch may often give point and value to an otherwise ineffectual effort. The Buffalo Museum of Science found in a recent observation that people actually spent more time before exhibit cases when the amount of material in the cases was lessened. It is better to get one hundred words 'over' to a reader than to get none—by attempting a thousand.

It is easy to forget *why* printed matter is issued. Its purpose always is to carry ideas from one individual or group to another. If it fails of a reading, it is totally ineffectual, wasteful and expensive, however small the printer's bill. When judged from the point of view of their economy and effectiveness in accomplishing the purposes for which they are intended, volumes that are a pleasure to the hand and

eye and a credit to the desk cost no more than, if as much as, books that are carelessly manufactured.

IV. MEDIA OF COMMUNICATION

The fourth step in outlining a mass education program is that of choosing from the manifold channels available the media which can be employed most economically and effectively to communicate information to the audiences which have been selected because they are composed of individuals upon whose intelligent cooperation achievement of the desired educational objective depends. Obviously, a primary principle determining the choice of a medium is not only the comparative economy of its use, but its probable effectiveness in achieving the purpose for which it is to be used. In the choice of the right media for dispatch of the right message to the right individuals lies the way toward effectiveness in mass education with least expenditure of money and effort.

The mass educator is offered an elaborate range of choice in the media which he will utilize in the transfer of ideas and purposive impressions to individuals and groups. Economy in the use of media naturally indicates that selection should be made so far as possible according to the geographical range of residence of the prospective audience. All things being equal, the more direct and personal the approach the better are the chances of engaging attention and interest leading to understanding, confidence and support; although naturally, the more costly will be the effort. The media available for mass education afford a high degree of selectivity both in geographical range and in intimacy and directness of personal contact with individuals. A wide compass is thus afforded for the exercise of specialized knowledge and skill in their choice and use. The task of choosing is simplified when the available media are considered with regard to the

degree of selectivity which they afford in reaching individuals according to where they live, what they see, hear and read, who they are, what they do, and what their status is with reference to the proposed educational objective.

In an accompanying outline is presented a check list of available communication media arranged according to the comparative intimacy and directness which they afford in contacting individuals as individuals, and as members of a mass and of various social groups and classes. All the channels listed are available in some communities, particularly in the larger cities; and many of them are available in all so-called civilized communities.

Any program of mass education which relied upon direct contact with individuals would obviously seem foredoomed. It would assume a mediaeval state of civilization, when the sum of the qualities of a man's individual and social knowledge was limited by the influence upon him and the knowledge imparted to him by those with whom he more or less accidentally came into contact. Even if practicable, personal contact may not offer the best means for those who know to communicate information to those who do not know. Possession of knowledge does not *ipso facto* qualify one to dispense it. The job might be much better done by one who has access to his audience only through less personal and direct channels. It is a rare individual who would trade knowledge derived from a favorite book for that acquired through personal contact with any teacher.

The telephone, a medium of direct contact which, pending the development of television, offers the closest approximation to face-to-face conversation, "has advantages of flexibility which give it preeminence where a quick 'two-way' interchange is desired."⁸ First class mail, telegraph, cable and

⁸Willey and Rice: *op. cit.*, p. 148.

MEDIA OF COMMUNICATION AVAILABLE FOR USE IN MASS EDUCATION
ALLOWING SELECTIVITY ACCORDING TO WHAT INDIVIDUALS READ, WHAT THEY SEE,
WHERE THEY LIVE, WHAT THEY DO, AND WHO THEY ARE

ESTABLISHED CHANNELS OF COMMUNICATION (PRINTED WORD, SPOKEN WORD, PICTURES)		SOCIAL ORGANIZATIONS (SOCIAL GROUPS AS MEDIA)	INDIVIDUALS (MEN AS MEDIA)
MEDIA ALLOWING ONLY ACCIDENTAL SELECTIVITY in communicating thoughts and emotions to individuals upon whose mental attitudes and behavior, achievement of the intermediary and ultimate objectives depends.	MEDIA ALLOWING PRACTICAL DEGREE OF SELECTIVITY in communicating thoughts and emotions to individuals upon whose mental attitudes and behavior, achievement of the intermediary and ultimate objectives depends.	MEDIA ALLOWING COMPLETE SELECTIVITY in communicating thoughts and emotions to individuals upon whose mental attitudes and behavior, achievement of the intermediary and ultimate objectives depends.	KEY AND GIFTED INDIVIDUALS WHOSE CO-OPERATION IS ESPECIALLY USEFUL in communicating thoughts and emotions to individuals upon whose mental attitudes and behavior, achievement of the intermediary and ultimate objectives depends.
NEWSPAPERS MOTION PICTURES RADIO GENERAL MAGAZINES	IMPERSONAL MAIL PAMPHLETS ENCLOSURES THE PLATFORM DRAMATIZATION EXHIBITS PERIODICALS	PERSONAL CONTACT PERSONAL MAIL TELEPHONE TELEGRAPH CABLE WIRELESS	PUBLIC OFFICIALS INDUSTRIAL LEADERS SPECIAL TALENT
	PUBLIC OFFICES AND DEPARTMENTS EDUCATIONAL INSTITUTIONS PROFESSIONAL GROUPS CIVIC ORGANIZATIONS SOCIAL AGENCIES INDUSTRIAL AND LABOR ORGANIZATIONS ETC.		

wireless constitute direct and exclusive though less intimate channels of communication between individuals. Publications and other printed matter which can be dispatched as second or third class or 'bulk' mail, while less costly in communicating ideas to large groups, are also less exclusive and less personal than the foregoing. Newspapers and magazines of large general circulation, theatrical motion pictures and radio, all of them economical and effectual mass educational media, allow only accidental selectivity in communicating ideas and images to pertinent individuals and groups.

There are, of course, many considerations which will determine the effectiveness and economy of using any particular medium for a given purpose. Booklets, pamphlets and other reading matter, to use one example, may not be effective with a proposed type of audience. Not all people can read. Not all people who can read do so. Those who do read often have firmly fixed reading habits. In their leisure many men and women sit doing nothing. Their hands, their eyes, their brains are often idle. They do not even read a newspaper—one of the most adaptable common carriers of information available to the mass educator. It is for this reason, among others, that radio broadcasting has demonstrated itself as a valuable medium for oral mass education. That it offers vast unexploited opportunities is indicated by responses which a clergyman received from more than 485,000 letter writers following one broadcast in 1930 over a network of twelve stations of the Columbia Broadcasting System.⁹

To use one other example, the talking picture, adaptable for presenting visual and oral instruction simultaneously, must necessarily play an important part in modern mass education. Through this medium of transmitting moving images with synchronized sound, it is possible to present be-

⁹Willey and Rice: *op. cit.*, p. 203.

fore any audience at any time a speaker of recognized histrionic power in public expression. Photography of microscopic subject matter in motion has made it possible to display to 5,000 persons simultaneously what yesterday was visible to only one person leaning over a microscope. The synchronization of sound with animated drawings has further extended the usefulness of this medium for mass instruction.

The availability of individual leaders and of social groups as media for the communication of ideas and emotions has been mentioned (p. 177). Irrespective of the cause initially leading the individual into common interest with a group, once he is aware of such mutuality, his acceptance of a new idea becomes somewhat dependent upon the group's sanction of it. Indeed, if reluctant to accept a new concept, he is often brought to do so through the 'social coercion' which is inherent in all social organization.¹⁰ Numbers give strength. The presence of others supports the interest of each, opening the way to better mutual understanding. Through mass influence, individual confidence is engendered and enthusiastic cooperation often gained. In this sense, it may be said that it is the purpose of mass education to transform unorganized aggregates of human beings into groups which are like minded with respect to the basic subject matter of the effort. Individual leaders and social organizations, framework of the structure of society, are thus ideal potential audiences for any mass educational effort. This is because they constitute a medium *par excellence* for the communication of ideas and emotions to their followers.

A criterion of success in mass education is the extent to which it develops in its proposed audiences understanding, emotional reactions and habit patterns which conform to the

¹⁰MacIver, R. M.: *op. cit.*, p. 100 and ff.

purposes of the effort. Measurement of change in the mental attitudes and behavior of one individual is difficult enough; the difficulties of measuring such changes in groups of the population are obvious unless the result sought is definite action like the casting of a ballot or the purchase of a commodity. There is need for more authoritative information upon which to base judgment of the probable effectiveness and economy of various methods and procedures available for use in mass education. Experimentation with various processes and media has not been recorded very extensively and thus made part of the available working knowledge. Here is a fruitful field for controlled experiment, for the use of available means of measuring the results of purposive social action. In the absence of records of such exploration and the fixing of principles based upon such factual data, procedure must necessarily rest upon collective experience.

An attempt has been made here to indicate in sketchy fashion what, based upon such experience, seems a sound approach in the formulation and carrying out of a mass education program. The steps fundamentally present have been indicated by a four-part question: (a) *What facts and ideas must be secured*, (b) *to transmit through what media*, (c) *to what audiences*, (d) *to accomplish what objectives?* Here are outlined the essential steps which, consciously or not, are taken in the spreading of mass information. These are the steps which necessarily would be taken in mobilizing the resources available for concerted effort in carrying out any well considered mass educational objective.

The foregoing suggests that the attitudes and behavior of masses of human beings can be influenced and motivated for social ends through the utilization of the means which modern industry has made available for the widespread dissemination of ideas, images and emotions. Spectacular demonstra-

tions have been made in the last decade and a half of the power of concerted propaganda in influencing the trends of the world. Programs which yesterday existed only in the minds of pamphleteers and orators today affect the lives of millions. Propagated ideas, not ammunition, enthroned Sovietism in Russia, Fascism in Italy. Whatever one may think of the political philosophies by which these governments are motivated, no clearer manifestation is needed of the power of mass education to influence the actions of mankind than to witness the economic and social upheavals brought about in these and other countries through the purposive employment by their leaders of the tools of mass impression.

"You," said Demosthenes to his rival orator Æschines, "make them say, 'How well he speaks.' I make them say, 'Let us march against Philip.'"

Masterful use of modern instrumentalities of mass education is indispensable in securing mass action. Any group whose program requires social action, which has not become aware of the important part mass impression must play in the accomplishment of its purpose, has not adequately qualified itself for leadership in its field.

Thomas Carlyle has encouraging words for the mass educator: "Hast thou not a Brain, furnished, furnishable with some glimmerings of Light; and three fingers to hold a pen withal? Never since Aaron's Rod went out of practice, or even before it, was there such a wonder-working Tool: greater than all recorded miracles have been performed by Pens."