the present system. He used, in particular, his knowledge of the human mind and its functioning under optimum and nonoptimum conditions. Here, a business is treated as an organism, and it is discovered to be either sick or well in direct ratio to the inability or ability of its communications system to carry orders, execution and information throughout its entire body. In the opinion of many who have studied Mr. Hubbard's system of communications, we face now an inevitable constructive revolution in plant management and national production. —THE EDITOR

Dianetics® spiritual healing technology is a precision subject that stems from the study and codiFication of survival. The word comes from the Greek *dia* "through," and *nous* "soul." It is further defined as what the soul is doing to the body.

Dianetics is pervasive. Human behavior and human thought are the foundation of human endeavor^ Once one has an answer to these basic riddles, there is almost nothing which will not eventually resolve.

Scientology® applied religious philosophy^ is an organized body of scientific research knowledge concerning life, life sources and the mind and includes practices that improve the intelligence, state and conduct of persons.

It is the study and handling of the spirit in relationship to itself, universes and other life.

The word itself comes from Greek and Latin roots, *scio* "knowingness in the fullest sense of the word," and *logos* "study of." Scientology is the science of knowing how to know answers and is a clarification of knowledge itself.

1 *endeavor',* an earnest attempt or effort.
2 philosophy, a particular system of principles for the conduct of life.

INTRODUCTION

The experience of L. Ron Hubbard in the handling and organizing of communications and communications systems is extensive. Educated as a mathematician and engineer at George Washington University, he early became interested in problems of human relationships and the applications of electronics thereto. He has studied and worked in several systems of communication in order to bring this system to perfection. Such systems included: the United States Army Signal Corps, the Marine Corps system, the Merchant Marine system (including British and Netherlands variations and wartime practices and refinements), U.S. Government communications systems, U.S. Navy systems (including letter mail, filing, radio, codes, networks for amphibious landings, and, most complex of all, combat information centres, as in the handling of fighter planes from carriers and in submarine search and destruction). The more beneficial points of these systems have been utilized, and their obvious and glaring mistakes have been avoided.

In his study of business and organizational communications systems, both inter-office and inter-plant, Mr. Hubbard has discovered that much is still to be desired to produce in these even a rudimentary circulation of information. His calculations demonstrate that by reason of poor communications alone most business and industrial organizations are running at less than twelve percent efficiency. Additionally, the most valuable personnel in American business are being wasted by improper communications service. Their time is spent largely in efforts to communicate and to obtain compliance with their plans and orders.

Recognizing that the role of the executive is planning and supervision, Mr. Hubbard, after a survey of many organizations, originated and composited the systems which are outlined in this book. He had two chief objects in mind. One, to save executives' time and make it possible for them to fill their proper role in an organization. Two, to reduce the confusion amongst employees and workers who, served by inadequate communication channels and methods, can have no clear understanding of the problems and concerns of management.

In addition to the fact that workers are rendered inefficient and confused by misunderstandings about what they are to do, a poor communications system makes it possible for various elements, undesirable alike to worker and manager, to interfere between production and management and create disturbances which are reflected in broad and paralysing strikes. These elements gain their power by denying information to the worker or by perverting information.

It is Mr. Hubbard's concept that anyone in an organization is, to some degree, a manager, whether he manages the whole organization, a small group of people, or simply a file case or a machine. Each, with his responsibility, is part of the neurone or nerve system of the organization, and he cannot function without clear and adequate instructions. Nor can he function unless he can obtain co-operation.

Far from opposing associations of employees, Mr. Hubbard sees in these one of the few attempts to improve the circumstances and function of the worker. In his view, anything undesirable which has arisen around such associations derives immediately from the inability of the worker, under present systems, to maintain adequate two-way communication with those who are making it possible for him to have a job to do. The severance of communication renders the worker anxious and confused, and he becomes open to suggestion that he is not and never can be a managing part of the organization for which he works and must, therefore, exist under a constant state of cold or hot war with the upper management.

The worker feels that he can only revolt against sources of command which he cannot reach and which, using poor systems of communication, rarely reach him. After broad study in this field, Mr. Hubbard compounded

SECTION ONE THE OX-CART OF MODERN PLANNING

The subject of communications has not been thoroughly investigated at any time by any man. Only now do we begin to investigate it and to formulate the principles and practices of communication. It is expected that this study will result in the creation of a profession of communicators, which will serve industry, commerce, and government to make communications flow.

Communications could be said to be the study and practice of interchanging ideas, individual to individual, individual to group, group to individual, and group to group. It has not been clearly understood in the past that the failure of a group to communicate ideas within itself results in the failure of the group, that the failure of communication between the group and its leader results in the failure of leadership. Uniformly, throughout industry and commerce, breakdowns which are blamed on poor leadership, insubordination, or general ineptness may be attributed correctly to failures of communication.

The leader and his subordinates wish to work smoothly together. They are often skilled at the operations which they must estimate and perform. But, lacking a cultural heritage of good communication, they

find themselves unable in many cases to use their skills effectively. Not realizing what it is they lack, they blame each other's abilities and motives and so create discord and further failure of communication.

Ideas newly-developed and organized in Scientology have illuminated the subject of communication as never before. There is a clear parallel, in the field of communication, between the individual and the group. With poor communication, the individual is not sane, the group is not effective.

With no communication, the individual is dead, the group disbands.

We have learned that an individual who cannot communicate with his own past, through memory, is at a great disadvantage, and an individual who cannot communicate with the present, through perception, is helpless, being unable to estimate the efforts required for meeting and creating the future. Communication within the individual is essential and indispensable. Lacking memory, which is communication with the past, and perception, which is communication with the present, the individual cannot plan a course of action. He cannot deal with his own problems. He is considered insane. So it is with groups, also.

In an organization which has poor communications, management cannot plan. The function of management is planning, but management cannot perform this function. Of course, an executive can go through (he motions of planning. He can hold meetings, discussions, conferences endlessly. He can issue orders. He can talk about planning. But unless he is in real communication with his organization, unless the reports he receives reflect actual events and processes, and reflect them all, he is planning in a vacuum. His plans will not be carried out, because they will not be appropriate. They will not be carried out, because, with such poor communication, they will not even be received. Nothing will function in this organization without good communication.

What has passed in our society for good communication, however, is on a level with ox-cart travel over trackless deserts and mountain wastes. The primitive communications systems which we use cannot carry the load, either in adequate volume or with sufficient speed. While transport of material has jumped from the sailing ship to the jet plane, communications have advanced only to the equivalent of Fulton's steamboat. Telephone, telegraph, radio, duplicators, airmail, and television may deceive us into thinking that communications are developed appropriately for our age. But these are only mechanical aids.

They are not communications. Far more important than communicating *devices* are communicating *people* and communicating *practices.*

The technology of communications is not to be confused with the technology of building, maintaining, and operating communication machines. The technology of communications deals with the interchange of ideas. It deals with the nature of thought within the individual and within the group. Its unit of operation is not a machine but a human being. In an organization the size of a small factory an almost perfect communications system could be instituted without the use of any material technology more complicated than pencils, paper, sheets of carbon paper, and some racks and filing cabinets. But the individuals operating this system would have to know more about the subject of communications than all the telephone, telegraph, radio, wirephoto and television operators, builders, and maintainers in the world put together. Conversely, an organization of moderate size might have at its disposal every conceivable communication device—recorders, relays, vacuum transfers, trolley-wire transfers,

telephones, duplicating typewriters, automatic mimeograph machines, electronic punch-card filing machines, and any other ingenious and fascinating device—and still be ninety percent ineffective in communication. And this often happens.

Scientology has revealed an important fact in relation to a communications system: A person's position on the tone scale regulates what his stand on communication will be. An individual who is angry will reverse the truth, turn black into white. A covert individual will alter the truth as much as he can without being detected. An apathetic individual will fail to pass any communications except those which carry an apathetic and hopeless message. As an individual rises on the tone scale, he communicates better and better. His communications are more and more direct, accurate, and constructive. The line, in other words, is carrying more and more theta.* As an individual falls away from a high position on the tone scale, he communicates worse and worse. His communications are less and less open, honest, and useful. The line is carrying more and more entheta.

If we know that a man is angry when he is telling us something, we can evaluate his communication as less truthful than if he were merely bored. If we know that he is afraid, we can discount his communication almost entirely. When he returns to a higher level, however, we can again consider his communications valuable. If he does not return to a higher level, we are justified in not communicating with him, unless it be with the purpose of bringing him back to a higher level. For the sake of the communications system, either he must be brought to a higher level or the communication line to him must be cut. A communicator at a low tone level is far more destructive than a teletype which prints "Nxw xs thx txmx fxr xll gxxd mxn tx cxmx tx thx xxd xf thx pxrty." We would not think of leaving such a machine in the circuit. Far less should we think of leaving a frightened or angry communicator in the system.

The tone of a group can be measured by its level of communication. If it communicates well within itself, its tone must be high. If its communication is faulty, its tone is not so high. If its communication is perverted, it is a sick organization. If its communication ceases, it dies.

The job of estimating the tone of a group is not begun by talking with the management or by watching individual workmen at their skills. It may be assumed that the management knows something about the business and that the workmen are able to do their jobs. The investigation will be most rapid and valid if the communications system of the group is examined— for this is the nervous system of the group. A group with good communication will not be handicapped seriously by the presence of a few dolts. A group with poor communications cannot succeed even if it contains intellectual giants.

* See Glossary for unfamiliar terms. The tone level of a group can be raised, as if magically, by the introduction of a genuine communicator. The communicator enters into the operation of the group with the sole purpose of establishing and maintaining good communications lines. He does not concern himself with the conduct or skill of individuals in the organization except as they relate to communications. He insists that a certain procedure of communication be followed. When this procedure begins to operate, the tone of the group automatically rises, the work goes better, there is less waste, there is more co-operation. Nothing need be said about work, waste or co-operation. All that is necessary is that the communication procedure be carried out. This is a big job, but it can be done.

The tone level of the communicator in regard to matters other than communications, while important, can be partially compensated for by education in communications. He might be covert on the subject of sex and angry on the subject of politics and bored on the subject of religion and still be an effective communicator—provided he did not have to

deal with any messages on the subjects of sex, politics, or religion. If he did have to deal with these subjects, we might expect his training and practice in good communication to overcome to a considerable degree his inclination to handle these messages in a low-toned manner. It is probable, and more than probable, that continued operation as a good communicator would bring liim slowly up the tone scale in general.

Therefore, it is not necessary for the communicator to be far above normal as an individual, although his knowledge of communication will place him very far above normal in this vital and pervasive function and render him extremely important and helpful to the group. He, or she, must only desire to keep the lines up, to see communications flow, to see the system operate as it has been designed to operate, and to prevent any interference with that operation.

The job of the communicator will be as arduous as the tone of the group is low. It will be as easy as the tone of the group is high. **But** as the communicator does his job, the tone of the group will rise.

A group which is low-toned will curse and threaten the communicator. The personnel of a Naval vessel, where the tone is usually low, will constantly rave and rant at the communications people. The communicator is on the spot. Those members of the organization who are doing the planning are angry at him because he can't handle their needs fast enough. Those members of the organization who are authoritarians call him on the carpet for daring to communicate anything at all. He is in a constant dilemma between so-called security and getting something done. He must adjust his operations to carry the most theta communications he can, using the time, equipment, technology, personnel, and authoritarian restrictions which have been handed to him. The little he knows about communications he has learned through his own experience. Those whom he serves know even less. They have no conception of his proper function. They think of him as a communicating *machine,* subject to their will. And yet, in spite of all this, they have a peculiar respect for him—a respect which is inherited from the past.

Always, communicators have been sacred people, because communication lines have been sacred. A society which has any organization or advancement holds its communication lines sacred, or it loses its organization and advancement. The priest derives his sacredness from his function as a communications point: he stands between the people and their deity and relays messages both ways. He is not the god. He does not own the god. But he controls the communication line to the god. Any individuals in that society who felt that they had their own communication line to the god would no longer hold the priest sacred.

In the university, the Great Authority on Sponges is important because he stands between his students and a vast number of books on sponges. If all the knowledge on sponges were contained in one medium-sized volume, the students could read it, and the Great Authority would no longer have any importance. In order to prevent this, or anything like it, from happening, the Great Authority makes it clear to the students that there are a *great* many books on sponges, that the knowledge in them is diverse and conflicting, that only he has read them all, and that students are congenitally incapable of understanding them anyway. If, on the other hand, the Great Authority understands his job, he relays all he knows about sponges as simply as he can. He may be so good at relaying information that he is considered a great professor. This means that he is a great communicator. Only rarely does he originate or discover any material about sponges. Only rarely is he a creative man, or a discoverer. But, from time to time, he is a good communicator, and when he is, he is loved by his students and envied by his colleagues.

A man on a communications post who will relay all material, who will alter it only to make it more understandable, who will delay it only if it is incomplete and soon to be completed, and who will break off the line if, and only if, it is entheta and destructive, is a man who will do well as a communicator. A communicator does not confuse himself with the goal-making section, the planning section, or the production section. His function reaches into all of these, but only to communicate, not to usurp the activities of any section of the organization.

Some men originate new ideas. Often they are poor communicators. The communicator who is assigned to such an individual has the same problem as the professor who is interpreting a vast library of books to students. The communicator must express what this creative man is doing. He must require the creative man to give him the material in a form which can be understood by all the people who are on the communication line. He must understand what the creative man is talking about, before he can communicate any of it to others. This makes the communicator for such a creative point a very important person. Translating the cryptic utterances of the genius who is absorbed in the creation of an idea is a full-time job. Sometimes the genius acts as his own communicator. Sometimes he is a genius at communicating. But more often he is a genius at designing something which no one understands and about which he communicates very poorly. A communicator assigned full-time to doing nothing but understanding what this man is about and communicating on the subject to others is a necessity in such a case.

When the communicator is dealing with a planning management, the difficulty of translation is not so great, but the volume is very large. A manager is constantly giving out orders, at all hours of the day and night. The business tycoon, who works at his job twenty-four hours a day, might well wear out three or four communicators in the course of one day. If four communicators were assigned to follow him around in six-hour shifts, the saving of his time and energy and the realization of his ideas would pay their salary a hundred times over. The manager would always be in communication with his organization, but he would never have to *worry* about communication. Normally, a manager is seldom in communication with his organization and he is always worried about communication.

Management exists to make plans. Management does not exist to communicate. That is the communicator's job. Most management spends ninety percent of its time communicating and ten percent making plans. If management did not have to think about communication, it could be ten times as free to plan. The communicator's job is not only to insist that management communicate, but also to participate in the activities of management as an observer, so that anything which needs to be communicated can be communicated without management's even having to think about it.

One prime necessity exists before this can happen. Management must trust and have confidence in the communicator and the communication system. The communicator of the head of a big industry must know as much about that industry as the head man himself. This does not mean that the communicator should be capable of running the industry. It means that he should be familiar with all the problems of the industry and particularly familiar with the methods and views of the manager, so that he will know what to communicate and what not to communicate. If the manager does all his thinking out loud, the communicator must know enough not to communicate it. The plant can get along without the manager's feelings about his golf score, his remarks to the new secretary about the charm of her figure, his nebulous desires to run the competition out of business, his worries about the encroachments of col-lectivism, etc., etc. All these things are

valuable as information to the manager's communicator, because they help the communicator to know what to communicate and how to evaluate it, but they are not plans for operation, and they do not need to be communicated to the plant as orders, rumours, or gossip.

When management gains confidence in the communicator, management no longer will express himself in curt, unexplained, mechanical orders. He will think and express himself freely. When, in the course of this thinking, a definite plan is formulated, it will be automatically put into the communications system, and, as will be detailed below, *it will inevitably be carried out or refused openly*. Management, trusting the communications system, will at last be free to plan.

A communicator in a military organization is on the spot, because he cannot persuade the generals to trust him. The generals will tell their harlots but not their communicators. Many a battle has been lost because of this dismal fact. The general will not tell his own message centre what to tell the troops, because the information is secret. But the plan already has gone out to the enemy through the bar-rooms. This is known as security. Security is a dangerous thing. It makes an organization irrational by depriving it of data. The best security in communications would be the fastest, fullest communication of all data to all points of reception. The plan would go into action before the enemy could do anything about it. Only rarely is secrecy the best method of operation. As a general habit of operation, it is disastrous.

The communicator in an organization which has secret goals, or secret plans for reaching goals, will have to sacrifice some of the efficiency of the communications system to the end of secrecy. But most organizations have very little need for secrecy if they only knew it. And most of the secrecy in industrial and commercial organizations is dedicated not to the benefit of the operation, but to the advantage of some individual or sub-group. When this kind of secrecy is removed by a communications system, open and honest co-operation is the only *possible* method of operation.

The communicator must know what the goal of the organization is. If he does not know, he cannot function as a communicator, he can only function as a communicating machine, which is not the same thing. The moment management keeps a goal or a plan secret from the communicator, management must again undertake the burden of communications. The usurpation of the function of communication by management is the primary case of failure in organizational communication. Management can't plan if it communicates, because it hasn't time to do both. Management must plan, in order to be management. So management does not bother to communicate and will not let anyone else communicate. Very soon management is thoroughly out of communication with the plant.

Often we find an attempt to operate down in the plant, which is carrying on the business of production, practically in the absence of direction by management. The foremen cast doves into the air, or use fortune-telling cards or an ouija board to find out what management wants to do, and then they pass the word around among the workmen that such-and-such should be done. When an order finally does arrive from management, it is not in agreement with what the foremen got on their ouija board. Recriminations, delay, government contracts, and general havoc ensue—all because nobody is communicating, nobody is seeing to it that communication of all ideas to all affected persons takes place at all times. This can be done only by a communications system. It cannot be done in odd moments by executives, accountants, and lathe operators.

It is a measure of the state of our society that a communicator is thought to be no more than a girl who pounds a teletype or a boy who carries messages. A man's secretary is supposed to do nothing but

answer the letters he tells her to answer. She is not supposed to use her brain. But if he is a successful executive, his secretary will be a communicator in the sense in which we are now using the word. She will evaluate what he tells her and see that it gets to the right person at the right time, and she won't bother him about it. He is busy planning. All she asks him to do is give her the right data. He makes plans, she communicates them. That is a working team.

In ancient times the herald represented the sacredness of communication. There was a herald's college. Heralds had degrees. They could travel anywhere. Much folderol was attendant upon their calling. A spurious herald could be detected quickly by a genuine herald. No one but a herald could communicate between two forces. He arrived with his white flag (now degraded into a symbol of surrender) and he was safe no matter what message he carried because his person was sacred.

In these days, communications is not a specialized profession. What is called communications is merely the operation, maintenance, and development of machines to assist the communicator. But there is no communicator. It is significant that great technology exists for the physical transfer of communications from one place to another, but no technology exists for the creation of the communications themselves.

SECTION TWO WHY ORGANIZATIONS ACT PSYCHOTIC

Communications lines have some interesting properties. They have, one might say, life and powers of their own.

A strong theta (reason-bearing) communication line has a way of maintaining its own life and defending itself from interference. If it is tampered with, it will blow up at the point where it is interrupted, and it will blow up the person who interrupts it. Any person who will interrupt a line which is carrying smooth, reasonable, well organized theta material must be acting on a suicidal compulsion, because the people who are dependent upon this line will take strong measures to preserve and protect it. Even if they never have been told anything about communications as science or art, the value of a communication line is implicit in every operation of theta, within the individual or within the group. If a man stands across a strong communication line and blocks its flow, it will blow up in his face.

If the line is not so strong, the individual may succeed in blocking it. The communicator, wishing to restore this line to operation, need only demonstrate that the line was interrupted by this individual. The individual will then blow off the line and, quite possibly, out of the organization completely. Wherever there is a person who will pervert a communication line, there is a germ of death in the organization. If the organization contains much life, it will not tolerate such an infection.

If the organization contains but little life, however, a clever authoritarian may sit on the communication lines indefinitely, perverting them just enough for his purposes but not enough to cut them completely. If this authoritarian happens to be the head man, the result will be that atmosphere of oppression, uncertainty, and rebellion so familiar to the employees and associates of that familiar figure of American business, the self-made tyrant.

Management which has tasted the pleasures of creative planning will have no further time for, nor patience with, the puny powers which can be derived from perverting communications within an organization. A good communications system permits management

to be the rider of a race horse. A poor communications system gives management only the doubtful joys of driving a stubborn mule.

Communications lines are interrupted more frequently by negligence than by design. People are just too busy to follow the required communication procedures. They neglect to make the slight extra motion which is necessary for their data to be entered properly into the communications system. Or, if there is not yet such a system, they neglect even to tell anyone what they want done or what they have done. The chief communicator in any industry which is instituting a communications system will spend most of his time indoctrinating people in the procedures and reminding them to use the procedures. He will have to persuade them that it is necessary to do this not because somebody demands it but because the organization cannot function or live without it.

The communications system is designed to pick up and preserve bits of information such as "The key to the back door of warehouse number three has disappeared," or "There is an unclaimed box of roller bearings in the dispensary," or "The drinking water in the women's rest room is slightly radioactive," and keep them moving until something is done about them, and then keep them on file for reference in the future. An item like "The key etc." would be shunted around by the communications system feverishly until the lock was changed and new keys issued. Of course, the communications system would not issue any *orders* about this. It would merely present the information to command points until an order was issued.

The stream of orders which issues from any command point in a large organization is made up of many small items. These items are the minute-to-minute thoughts of the organization. The communications system is the vehicle for these thoughts, it is the nervous system of the group.

We have often compared an organization to a life organism. We can carry this analogy further, to state that an organization without a communications system is like a sponge: insensitive, immobile, and helpless. The higher forms of life have highJy developed nervous systems, by which all parts of the organism are in communication with each other. If an organism's nervous system is not arranged so that it can feel pain, it cannot withdraw from or cope with danger. Its survival potential is low. If it wishes to attack, it must be in immediate and dependable communication with all its members. Its ability to attack and defend, and thus its survival, are directly dependent upon communication.

A communications system is not only the nervous system but also the brain of an organization—that is, it forms the medium, the mass of tissue through which the planning mind of the organization (all those individuals who originate plans, from the greatest to the smallest) operates. A mind cannot operate without memory. Whether that mind is running an organism or an organization, it must be able to communicate with its past. Memory is absolutely essential to the operation of an organization. An organization with a bad filing system acts psychotic. The filing system, being the memory of the organization, is an integral part of the communications system, which is the brain of the organization. The two cannot be separated, or psychotic behaviour will be manifested by the organization.

Management cannot plan without an excellent memory operating in the organization. This memory should not have to be and. indeed, cannot be enclosed in the heads of one or two individuals. It has to be available to all of the computing and planning levels of the organization. It has to be accurate. The evaluation of the information in it must be exact and uncoloured. The organization becomes neurotic to the degree that the information in its memory is coloured.

The survival of an organization depends upon its ability to perceive, to compute, and to remember. All these take place within the tissues

that form the communications system. A group, like an individual, must know what it has done, what it is doing, and what it intends to do. A group, like an individual, must have this data available immediately, at will. The more closely a communications system (including perception, memory, estimation of future efforts, and relay of orders) approximates the operation of the human mind, the better the organization will function. When the memory of the organization is resident only in the minds of a few individuals, that organization is not functioning as a group, and has no real group memory, but is only borrowing the memories of these individuals in lieu of having a memory of its own. This is highly unsatisfactory. As with an individual, so with a group there is a direct relationship between sanity and ability to communicate with records of the past, as well as with perceptions of the present.

Communications lines also have weaknesses. A communications line can be cut or interrupted or invalidated in five ways.

The first way is simply to cut the line, to prevent any information from travelling on the line, to pass no dispatches.

The second way is to pervert the line, to alter the communications which are going on the line.

The tllird way is to select all constructive messages out of the line and leave all destructive messages on the line. This is cutting the line by censorship.

The fourth way is to introduce destructive material into the line, to load the line with entheta. The fifth way is to glut the line, to permit any and all This need fig 1.

material to go over it, with no selectivity. Those who are on the receiving end will get so much material to deal with that they will become careless and irresponsible in their handling of the material.

Of course, the most successful way to prevent communications from occurring is not to establish a communications line in the first place. This is what usually happens. But if one is established, it can be destroyed by cutting it, by perverting it, by censoring the theta, by introducing entheta, or by glutting the line.

There are at least three ways to glut the line. One is to fail to evaluate dispatches as to importance and velocity, in a system where traffic is heavy. The receiver then has to read everything to find out which item to handle first. Another way is to permit messages to be verbose, with much talk and little data. Another way is to save up a great amount of material and then send it all at once—to send nothing for five days and then send 100,000 words and then nothing for five days. The receiver has so much to do all at once that he will tend to devaluate the communication in general. If a communicator carelessly lets two months' worth of material on a certain subject pile up on his desk and then releases it all at once, people will be so stunned by the great volume that they will pay no attention to it, and the material may be lost.

A communicator, because he is a communicator, will want lines not to be cut in any of these ways. He will have to know how to prevent their being cut, and the first ability that he will need in order to prevent their being cut will be the ability to evaluate the material that goes over the line. Some items will be very important, some not so important. They must be evaluated. Some items, whether important or not, will have to be done right away if they are to be done at all—they will have, in other words, a high velocity. They must be so evaluated by the communicator. The importance and velocity of every message must be written on it by the communicator, so that the receiver, if he has a pile of a hundred messages, will know which to handle first and which to follow up the most frequently.

In order to be able to evaluate messages in this way, the communicator must know as much about the operation of the

organization as the man who is sending the order. He must make his own evaluation of the message. The man who is sending the order may say to the communicator, "This order for orchids for my wife is a top priority, top velocity message. Mark it that way and send it out immediately." It is all right for the executive to say this, but it is not all right for the communicator to comply with his request—unless the order really is top priority and a big rush. It is up to the communicator to decide how this message will be communicated. He will probably rate it high velocity, if the orchids are to arrive that night—but he will undoubtedly rate it *low importance.* This will mean to the communications system that if other work is not too pressing, orchids should be purchased for Mrs. Executive that afternoon—or not at all, since there may well be a time limit marked on the message, "before 5:00 P.M.," or something of the sort.

If an executive tries to force his evaluation of an order on the communicator, or if he will not let the communicator know how the order relates to the rest of the operation, or if he generally hides information from the communicator, the communications system, by just that much, will cease to operate properly and communications will begin to fail. Whenever an executive acts as though the communicator were not good enough or trustworthy enough to know about something, the executive will be cutting a communication line, because he will be depriving the communicator of the data be needs to be able to *evaluate* the material which the executive deigns to give him.

An order which was the most important thing that this executive could think of might not be the most important thing that could happen in the organization. It would be up to the communicator of that executive to know the importance of the order in relation to everything that was being handled by the communications system. If he didn't know, it would be up to him to ask the central communications office to evaluate it for him. The communicator is interested in the executive's opinion of the importance of this message. He may even concur with it. But he may not. And the communicator's opinion is the one that counts.

In a low-toned organization, executives from the head janitor on up will try to keep everything a secret. This will make it difficult for the communications system to evaluate their communications. The number of items which have to be classified for security in an organization which has constructive and creative goals and plans should be very small. Sometimes, in such an organization, we find an individual from whose desk there is a Niagara of secret and confidential communications. Everything this individual sends out must be delivered in person, must be delivered only to the addressee, is sealed with wax, and must only be sent by a special, trusted messenger. Open one of these messages, and you find "Joe— will you come over to my office for a closed conference?— Bill." It is so secret, he cannot say it even in a secret communication. This individual is accomplishing only one thing with all this secrecy. He is causing whatever meagre communications lines there are in the organization to fail. Everything which is kept secret becomes an unknown in the equation which is set up to evaluate and expedite communications. Only a few of these unknowns are necessary to make correct evaluation impossible. Every order or job which is kept secret will raise the chances of duplication or conflict.

Communicators will have to insist, frequently at first, that people let the communicator know what they are doing—or if they have no communicator on hand in their office, that they act as their own communicator and let the central communications office know what they are doing. If the first vice president calls up the head painter and tells him to paint the front door of the building red, and the second vice-president calls up the assistant painter and tells him to paint the

front door green, there is going to be waste and dissension. But if these two orders come through the communications system, they will bump into each other, and the conflict can be reported and straightened out before the painters get into a fist fight or, at the least, use up a lot of paint and valuable time. When the communicator finds that the vice-president has called the painter on the phone, he will have to remind the vice-president that orders are supposed to go through the communications system. The vice-president may get angry or make fun of the communicator for this. Any organization which cannot cooperate with a communications system is sadly in need of repair. The ease with which a communications system can be assimilated by an organization is a measure of that organization's health.

The new communicator will have to withstand a lot of criticism and "humour" before he establishes himself, even in a fairly healthy organization. The communicator should expect this. If he cannot take it, he cannot function as a communicator. He will have to develop powers of persuasion. He will have to have complete confidence in his profession, and he will have to know it cold. His one advantage will be that he is not under the authority of any of the people with whom he is dealing (although they will not believe this at first and will try to fire him from time to time) and so he will be able to talk to them as an equal. In his inviolability, he can afford to be confident, gracious and helpful even to the most recalcitrant points of the command line.

The communicator is not a messenger. He is a coordinator. He is not in the organization to do everyone's communicating. He is there to help everyone do his own communicating properly. He is an overseer.

It would have to be played on a machine, and no one has the half-hour required to play it.

In other words, a disc is completely blank to all but the sender and the receiver—and if the receiver is smart, he will not bother to listen to it, either. If an executive had sixteen subordinates, each of whom would send him one record each day, he would spend eight hours a day listening to records which brought him eight minutes' information. A ratio of sixty-to-one. Of course, since an executive is expected to work at least twenty hours a day, subordinates continue to use discs.

A principle which the communicator must know is that communications get briefer and better evaluated as they go up toward the top of the command line. They must, or they will not be read when they arrive. Conversely, communications need, usually, to be more detailed as they go down the command line. Instructions have to be full of data in inverse ratio to the receiver's height on the command line.

SECTION THREE EVALUATION IS OF PRIME IMPORTANCE

A communicator deals in facts. One of the most important things he does with facts is evaluate them. The communicator is not running a library, he is running a brain. There is a difference. There are ten million books sitting in libraries today, crammed full of facts. These facts are practically no good to anyone, because they have not been evaluated. They show that somebody was very busy collecting facts, but they show nothing else. If we wish to get some good from these facts, we must go into the library and begin to evaluate all the facts we can find on the subject in which we are interested. We must evaluate them against our own experience.

Many fields which pass for science today are little more than vast silos of unevaluated and therefore useless facts. The facts which a communicator must relay and file are meant to be useful at the moment of relay and later whenever they are obtained from the file. Therefore, they must be evaluated.

If Jacqueline, in the business office, orders a new lamb's wool coat through the purchasing department, in order to get the company discount, her order will go through the communications system. In the same office, the datum may turn up that the second vice-president is planning to sell the land on which the plant is located. The communicator in that office will have to put both these items on the line. Since he is not building a library, but running a brain, he cannot put both these items on the line with the same evaluation. He will have to give Jacqueline's coat the lowest rating and the vice-president's deal the highest rating. A datum is as important as the number of other data it evaluates. The sale of the land would affect everyone who worked in the plant, all the equip-ment, all the orders—the whole business, in other words. Jacqueline's coat affects only Jacqueline and somebody in the purchasing department for a brief period. The sale of the land will change all the planning in the organization. Jacqueline's coat will change no planning at all.

Of course, if Jacqueline's coat were mink it might have a greater significance—but the communicator would not care about that. He is not an investigator. He is a communicator. If Jacqueline's coat is mink,

that fact will appear in the files, but it will still bear the lowest importance rating. The detective who comes around to find out about Jacqueline and the vice-president may find the coat communication very rewarding. If the detective sends a message to the president about all this, the communicator may care to mark *that* message "important." But the communicator does not take it upon himself to investigate, criticize, correct, or assist anyone in the organization about anything but communication.

On the other hand, if the communicator finds that his messages do not get through, he will use every means at his disposal to find out why. When it comes to communication, he is as sensitive to the flow of his lines as an electronic meter, and he is jealous of their continued life and liberty. The communicator has authority on one subject only: communication. When the system fails in any way, he does not rest until it is restored.

In the course of finding out why his communication line is not working, the communicator may uncover a vast plot against the organization. He is not interested in it. The moment he gets his line open again, his work is done. If the line is open— if all lines are open everywhere in the system—the plot will come to light. Someone on the command line will notice it and do something about it. All the communicator has to do is keep the lines open. The communicator does not originate orders or messages on any subject but communication. It is not up to him to pass around his opinions on the state of the organization. That would be an investigator's job.

If someone on the command line were doing a destructive or non-productive job, that fact would appear in the communications which were filed from that department. The communicator might, if he were not too busy, have an opinion on this individual, but he would not voice it. If, however, this individual failed to answer messages or to send routine reports through on time, the communicator would take every necessary action to correct this—even to a report to the president himself. But if the communicator reported to the president, he would only report that the line to the individual in question had broken down and that he had no way to repair it. He would say nothing about the work of the individual—he would not have to. A failure of communication of that magnitude would show that something was terribly wrong. It would be up to the command line to find out what it was.

A clear distinction must be made between the *importance* of a communication and its *velocity.* Of course, the more important a datum is the higher velocity it may be expected to have; but there will be many exceptions to this.

The most frequent exception will be the order which has a time limit. A car is ordered to meet the incoming representative of the Salt Lake City branch. This representative does not expect to be met; he expects to take a cab; he has always taken a cab; he is used to it; he likes it. Obviously, the importance of this order is small. If it were not carried out, no one would know the difference. On the other hand, the order is given on Tuesday morning at 11:00 a.m. and the plane is due to arrive at 11:28. If this order is to be carried out at all, it must have the highest velocity of which the communications system is capable.

There is, then, no fixed relationship between importance and velocity. From time to time there will be very important data on the line which still will have the lowest velocity: "To the shipping department—if consignment X32 is not out of the state by March 31, the entire plant may be confiscated by the government!" Lowest velocity. Why? Because the date of the order is March 2, and consignment X32 is known to be ready for shipping. This order would be marked *top importance,* but it would not be a rush order. On the other hand, if the date were March 30, we might expect the Chief Communicator to take the

express elevator to the shipping department and stand there until the shipment went out.

The velocity of a datum depends mainly on the amount of the operation which it will correct or interrupt. If a book is being printed, and a datum turns up which changes the titles of four of the chapters, that datum must be handled as fast as possible. That datum has a higher and higher priority as the moment of starting the presses approaches. After the presses start, it will not be worth stopping them. It will be too late. At that moment, the datum has no priority. It goes back through channels at the usual traffic rate, to make trouble for somebody who gave the order too late. It goes into the files to show who was at fault and what happened. But its velocity is no longer high. It is just a record of the fact that the communications system received this order too late.

Many an individual on a command point will overrate his dispatches. He will send out positively foolish orders at top velocity. The communicator is not so much interested in how foolish the orders are. His job is to estimate the amount of the operation this order will interrupt. Chances are, if it is so foolish, it will be refused, whether it is top velocity or merely traffic velocity.

If the communicator knows that there is a good reason for refusing this order, he has one course of action open to him— not to block the message or write "Please ignore this!" on the message, but to attach to the message related material from the files which shows that the order is impractical. When he does this, he is running his communications system like a brain. He is aligning the data in the organization's memory with the newly-received data, so that the organization can reach a valid decision. If the order is marked "top velocity" but consists of a rc-quest for a dozen toggle bolts to be kept in stock until next year, the communicator will have to re-evaluate the velocity. These "top velocity" messages can knock everything else off the line and take up a lot of the system's time and effort. They should not be frequent. The communicator marks "top velocity" off the message with his blue pencil and substitutes "traffic."

The communicator might use three classifications in his grading, based on the degree of change in plans which would be caused by the message. "Operational Interruption" would be the highest classification—or just "Interruption." "Alert" might be the next. "Traffic" would be the third. Only a few communications would be marked "Alert." Very few would be marked "Interruption." This kind of classification, however, would not distinguish between importance and velocity, and the communicator might decide that it was necessary to distinguish, so he would adopt, probably, a system of numbers and letters.

In various organizations various grading systems have been used. The kind of grading done depends on the purpose of the grader. In military intelligence operations, information may be graded in terms of the reliability of the informant and the probability which the operative thinks the information has. To paraphrase it, the letters A to D stand for the reliability of the informant, and the numbers I to 5 stand for the probable truth of the information. "A" stands for a person of known integrity who is trained to report on the subject. "B" stands for a person of unknown integrity who is trained. "C" is a person of known integrity who is untrained. And "D" is a person of unknown integrity who is also untrained. The numbers I to 5 are diminishing degrees of probability. The number 5 would stand for "impossible." "D5" then would be slang for the worst information an operative could get his hands on: an impossible story from an ignorant liar.

A communications system might be given the job of grading every piece of information in this way. Each individual on a command post who originated a message would be graded from A to D,

regardless of rank. The communicator could not allow himself to be fooled by rank. The vice-president might be given to exaggerations or bluffing. He might talk a lot and know little. It would be up to the communicator to decide.

Under such a plan, a message from the vice-president to the painter might be headed, "Vice-Pres. Jones to Paint Dept. (Smith), C3, lim., traffic," which would mean "Jones is honest but he doesn't know what he's talking about. This message has limited importance (That is, it will affect a limited portion of the operation). Its velocity is routine." The painter would not be bound by this evaluation in any way. If he thought Jones the last word and the message of transcendent importance, he could act accordingly. The evaluation would serve only to give this message what the communicator thought was proper handling, and to give it some useful rating later, in the file. It would serve to expedite those few messages which need expediting. It would help the person who was looking over the line to see what was happening at a glance. His eye would be caught by the symbols which stood for "important" or "rush" (two different things, it should be remembered). Maximum alertness would exist without any limitation on traffic.

The system which is being described could be cut down for a small organization. Naturally, in an organization of ten persons, a much simpler system would be used. The system which is being described would work for an organization which covers a thousand towns, a thousand military companies, a hundred departments, or a government. Anyone in such an organization who wanted to hear from anyone else or have his communications received would have to learn how to communicate through the system. He would have to learn how to make his messages terse without leaving out information. If he wrote a ten-page letter to the president or the commanding officer or the chief administrator, reporting an argument with a co-worker and resigning his position, the communicator would simply refuse the message. The communicator would insist that he simplify the message to: "I don't get along with Jones. He is unreasonable. I quit!" The ten-page letter could be kept in the files as a reference and its existence could be noted on the message—or it could be attached to the message as an information sheet, but the communicator cannot permit the message to take such a form that the president will not read it, or will waste time reading it. The communicator has to keep the lines flowing.

Probably the worst type of message which can be sent is the recorded voice. Records made on dictating machines are sometimes sent as messages. This kind of message is the perfect example of what can be wrong with a communication. It has every possible fault built into it as an integral and inevitable part of it. First of all, it is meant to save someone's time, a typist's; but it wastes the time of the person to whom it is sent, who is presumably more important than a typist.

Second, it is an invitation to the sender to be wordy. Whoever heard of sending a sound-scriber record with only one minute of recording on it? That would be *wasting* the record, wouldn't it? (Value, several pennies.) So, the sender fills up the record with friendly chatter—all fifteen minutes of it. Then, at the last minute he thinks of something else he has to say, and turns the record over. Having done that, he has to fill up that side, too. One-half hour of time for the sender, one-half hour of time for the receiver—a full hour is spent by this organization in communicating ideas which might have been put down on paper in ten minutes and read in one minute!

Third, the record is blank unless it is played on a machine. This means that it cannot be evaluated anywhere along the line—that it breaks the communication line, in other words.

Fourth, it cannot be filed or cross-indexed. It can only be put away under one subject head, and there it will stay until the end of time or

until the building burns down (as the building will, if it is being used by people who would try to communicate with discs); for who will take it out of the file again?

SECTION FOUR THE PROGRESS OF A MESSAGE

At the inception of a communications system in an organization, people will have to be constantly indoctrinated about the proper form of a message. That form should be simple and unvarying. Essential features are: Origin point, destination, velocity, importance, and origin time. These would all appear in a routine manner on the message, either in a line across the top, or in various boxes or customary placements on the page. These positions should have a recognized order, so that the whole thing can be rendered in a continuous stream, as on a teletype, without confusion or loss of data.

The communicator's task will be easier if the communication forms which are supplied have places clearly marked for each item of communications data. Some self-important individuals may feel that they do not need to fill in all these blanks. Some executives may balk at the requirement of an *explanation* for every order. But the communicator will know that if an executive cannot put his order in the proper communication form, then that executive does not have a clear idea of what he is trying to do. That executive should think it over longer before trying to communicate about it, because if he does not understand it himself, how will the receiver?

To make learning the form easy, the communicator should make up a sample message which contains all the possibilities and entries and distribute it to every office and desk. Copies of it should be posted in obvious locations. Individuals who have particular trouble might be presented with a copy to stand before them on the desk. Whenever the communicator receives a message which lacks some essential form or data, he should send it back to the originator until all messages are in proper form.

The date line of a message is called its MESSAGE FORM, and is the identifying mark for that message.

Some organizations may prefer to use the military system of 24-hour designation, 0001 being one minute past midnight and 2400 being midnight.

The communicator will find that he, or she, is frequently having to grade communications down as to velocity. If the system is not over-loaded, a traffic-velocity message would be delivered very quickly anyway, and the use of higher velocity grades on every message would result in slowing down the general flow by distracting the communicator from routine operations.

In Washington, during the 1941-1946 War, messages which had to go fast were first graded as "Important." Then everything was marked "Important," since everyone felt important, and it became necessary to introduce a new grade, "Rush." After that, there was "Urgent," which was finally superseded by "Operational Priority." "Operational Priority" remained effective for some time, although it merely meant expedited handling. "Rush," by that time, had become the equivalent of "Slow Boat to China." A new designation was needed to speed really "important" messages on their way. One day, some pink slips appeared on boxes and envelopes, which were meant to fill the need. They bore the words "Super-Frantic-Hysterical!" Unless the communicator wishes to have to resort to means like this, he will have to be prepared to grade messages down regularly.

Another matter over which the communicator will have differences with the people he is serving might be labelled "rhetoric." A message may

try to get into the communication line which runs like this: "Jones to Smith—Smith, I would be very appreciative if you would kind of hang around the office on Thursday because—well, I have been looking over these chairs and desks that are in here, and they are in a terrible state of repair. Mr. Grapnel was saying to me, only the other day, that we have to present a business-like appearance and look as though we were a prosperous firm. Well, there are three broken chairs right in this one office, and that doesn't look very prosperous to me. So, as I say, I called Mr. OT^eilly of the Seumas Furniture Company on the 'phone, and he says that he has to go out to Riverside on Wednesday and down to Richmond on Tuesday, and so he won't be able to get here until Thursday. Now, I know you have experience with furniture and know the costs and so forth, and so I would like it if you would be here when he comes so you can show him what is broken and arrange the whole thing with him. Thanks a lot.—Jones."

The communicator tells Mr. Jones that this message cannot get into the system the way it is written. For one thing, some of the data is missing. When is the appointment? For another thing, where is the record of the 'phone call? If Mr. O'Reilly comes and does some work or takes away some furniture on the strength of a 'phone call, the organization will have no memory of the transaction, and it may forget to pay Mr. O'Reilly or get the chairs back. Possibly a situation might arise whereby Mr. Jones might have to pay Mr. O'Reilly, since, according to memory, the transaction never took place. Third, the message is three times too long.

After Jones recasts the message five more times, it will look something like this. "Jones to Smith—would like you in room 101 at 2:30 P.M. Thursday (12 Feb. 52) to meet Mr. O'Reilly of the Seumas Furniture Company and arrange for his repair of three broken chairs and one desk (the small one). The preliminary arrangements with him are on confone *Jones-O'Reilly 3:30 P.M. II Feb. 52.' Reason: The office looks shoddy, Mr. Grapnel has complained, you are the only one I know who knows anything about furniture except Hansen, and he is on vacation. Thanks,—Jones." This would be a *very full* message, intended to get the best cooperation from Smith. We have been talking about the communication line "to" a person or a department. This may have suggested a one-way flow. *But no communication line is open and working without a two-way flow.* To and from. It is this two-way flow which permits the communications system to perform its most important job: seeing that the messages do not die before they have been either complied with or openly refused. The mechanism which accomplishes this we may name the "bull pen."

The very smallest number of copies which could exist of any communication would be two: one to go, one to stay until the other one came back. Why this? Because if one stays until the other one comes back, the communicator, and through him the originator, will know whether or not this order has been complied with. The message cannot die secretly. So long as that second copy is sitting in the basket or hanging on the peg marked "uncompleted," the message is alive—somebody is going to do something if the first copy doesn't come back. If the second copy is not there, the first copy can get lost or be forgotten, and nothing will be done. Nothing can be done. The only person who can do anything is the originator. But the originator is on the command line, he is a planner. He is not supposed to be worrying about whether messages live or die. He has no time for that. He has planned and issued his order. From then on it should be automatic—either com-- pliance or refusal. The communications system exists to free the planner from his worry, and the bull pen is the means by which the job is done. This operation can be seen in Figure 2. Jones is a planner. He wishes to tell Hepplewhite, the painter, to paint the front door green.

At 2:52 P.M. he looks across the room at his communicator-secretary and says, "Sally, I want the front door painted green today." "Why?" says Sally, knowing that every communication must give a reason for the order. Jones shoots her a tired glance and says, "Tomorrow is the seventeenth of March." Need fig 2

Sally makes a communication to the painter. There are four copies: white, yellow, blue, and green.

She puts the green copy in a box marked "Unack," meaning "unacknowledged." The other three copies go through the vacuum tube to the central communications office, or corn-centre.

The corncentre communicator time-stamps the three copies. He hangs the blue copy in a rack marked "Musack," meaning "must be acknowledged."

If the communicator feels that there are other people in the organization who should know about the operation—for example, the accounting department, who might like to know how the painter is spending his time—the communicator makes a quick duplicate of the order and sends it to accounting, marked "Infad," meaning "information addressee."It would even be possible to make one of the original four copies regularly a stencil, so that duplication might be done in that way, when desired, without any extra effort. New duplication methods, also, will facilitate the making of infad messages.

Whether or not the communicator makes an infad, he sends the white copy and the yellow copy through the tube to the communicator who serves the painter. This communicator is running a communications station for Hepplewhite. She may serve one person or many, as the case may be, and for each she would have a station set up.

To facilitate the description, we may call Jones the "Orig," or originator of the message, and Hepplewhite the "Actad," or action addressee.

Hepplewilite's communicator puts the two copies (white and yellow) into the musack box of Hepplewilite's comstation. (The comstation of any individual or section is merely eight boxes or slots or racks, which may be large or small, depending upon the volume expected.) Then she calls Hepplewhite on the telephone and tells him that there is a communication for him. In a few minutes, Hepplewhite comes in to read the message.

When he has read it, he puts his initials in the diamond-shaped rubber stamp mark which the communicator makes on the yellow copy. The rubber stamp says "Ack." Then he goes to paint the door.

His communicator moves the white copy to the box marked "muscomp," and sends the yellow copy back through the tube to the corncentre.

The corncentre communicator time-stamps the yellow copy (3:05P16Mar52) and sends it through the tube to Sally. He moves the blue copy from his musack rack to his muscomp rack, and he estimates the time necessary for the completion of the order and indexes the blue copy for time by some method (by the position on the rack, or by some colour-clip, or other method).

When Sally gets the yellow copy, she clips it to the green copy and moves both of them to her uncomp box. She looks over at Jones, but he is busy, so she says nothing.

At 3:43, Jones looks up suddenly and says, "What about that door?" He is the nervous type. Sally says, "It's acknowledged." Jones grunts approval and continues his work in relative tranquillity.

At 4:35, Hepplewhite has finished painting the door. He stops by his comstation and writes his initials in a rubber-stamp mark "Comp" which he or his communicator stamps on the white copy. In addition, he adds the information, "Shamrock green enamel. Will be dry about 9 tonight."

His communicator sends the white copy through the tube to the

corncentre. There, it is time-stamped, and sent on to Sally.

The corncentre communicator moves his blue copy from muscomp to wait file, where it will wait for the other three copies, so that they may all be filed in the filing section, which is part of the communications system. (No copies are filed elsewhere except duplicate copies, and these are not considered parts of the system at all, but are only duplicates for the convenience of some person or section.) Sally clips the three copies together. She looks over at

Jones and says, "Boss, the door is shamrock green. It'll be dry at nine tonight."

Jones looks up from his preoccupation with work, as though he had never heard about any door. Then his face lights up in a benign smile, and he says, "Good!" and rubs his hands. "That'll show the boys at the convention that we know who the Irish are, all right!" He goes back to work. The time is 4:50.

Sally sends the three copies back to the corncentre. There, they are placed with the blue copy in the "To File" box.

The filing section picks them up as a matter of routine and files them. The white copy, having the most information on it and being the most important, goes into the subject file. The yellow copy goes into the time file. The other two copies may be filed with the white copy, or filed under actads and origs, or (if a good duplication system exists) they may be discarded. They may also be filed in the subject file under related subjects, such as "St. Patrick's Day," or "Conventions."

In this operation, the executive has spent, after getting the original idea to paint the door, only forty seconds of his time initiating, worrying about (five seconds), and enjoying the completion of his idea.

The communications system has worked about three or four minutes to pass this communication.

It has taken an hour and forty minutes to get the door painted.

The ratio of communications time to production time is one-to-twenty-five. How does this compare with the time normally spent in industry by an executive who is trying to get across his orders to people and then is trying to find out if anything has been done about them?

There is a complete record of the transaction. The organization, as a group, remembers it. If Mr. Jones and Mr. Hepplewhite and Sally and Hepplewhite's communicator all quit the next day, the organization will still remember just what happened, because it is in the memory of the organization as well as in the memories of these individuals. The organization will know why the front door is green. If the president is an Orangeman, he will know on whom to vent his wrath, just by asking for a copy of the file on painting. There are no loose ends, no excuses, no passing the buck. This organization has a mind, as an organization. It is not psychotic. (See Figure 3.)

Now, let us suppose that Mr. Hepplewhite is seized with an attack of lumbago as he is mixing the paint. Four pieces of paper are waiting to hear from him. The corncentre communicator has rated this job as an hour-and-a-half job. At about 4:45, seeing that the blue copy is still in muscomp, he sends a nudge to Hepplewhite's station: A pink slip, asking what has happened to "2:55P16Mar/Jones-Hepplewhite." One copy of this slip goes to Hepplewhite's station. The other is clipped to the blue copy of Jones' message.

When Hepplewhite's communicator gets the nudge, she 'phones to the guard at the front door and asks how the paint job is coming along. He says, "What paint job?" and the hunt is on.

What is happening? Is the communicator trying to see that the job gets done? No. She is trying to get an estimation on the completion of

the *communication.* She is trying to locate the back-flow of the message. She does not care whether the door gets painted. She cares about the message.

Presently, Hepplewhite is discovered in the paint room. The communicator sends off a high-priority request for a doctor. Then, she writes on the white copy: "Incomplete, due to sickness of Mr. Hepplewhite," and signs her name.

At 4:45, the white copy reaches Sally, who looks up at Jones and says, "Boss, Mr. Hepplewhite is sick and can't paint the door tonight."

"Oh. That's too bad," says Jones. "Well, there isn't anybody else we can get tonight without going outside. Might as well forget it." He dismisses it from his mind and continues working in tranquillity. Although bis project has failed, he This need fig 3 (8888)
has been provided with a reasonable explanation and he has not been kept in suspense. Therefore, he is not annoyed.

Whether the door is painted or not, the communication has been satisfactorily completed.

If there were any sign of poor communication on the part of some individual in the command line, the communications system would begin sending nudges to this individual, requesting the completion of the communication. These nudges would all remain as a permanent part of the record of that communication, in the file.

An individual who failed to answer a nudge would normally blow right off the communication line after a very short time. In other words, the command function of the organization would be informed that there was a break in communication in the vicinity of this individual, and the command function would be asked to find out why. A vice president would drop in on the individual to have a heart-to-heart talk. Naturally, the individual would not be there. He could not be there and fail to answer a nudge. It would be unthinkable not to answer a nudge, if he were there. So he would be absent. The communications system would have reported this absence, without even trying to, as a by-product of keeping the communications lines open.

An organization in which all the communications lines are open and flowing is a healthy organization. There is no way to hide trouble with a fully open communications system in operation.

The acknowledgement of a message in an organization is the equivalent of the helmsman's repeating of the orders he receives on a ship. The helmsman has to repeat his orders, because if he does not, the ship runs aground. Organizations do not run aground with a splintering crash, spewing debris all over the sea. But organizations do run aground, and for the very same reasons that ships do. They run aground because their communications fail to flow.

SECTION FIVE COSTS, LEAKS AND REASONS

One of the worst communications systems known to man is the U.S. Navy letter system. Because messages travel wholly on the command line, they are hopelessly bogged down in command protocol. It takes almost as long to write one of these letters as it would to chisel a good communication on the same subject in stone: "To . . . From . . . Subject . . . References . . . Enclosures . . . Via . . . One, (the substance of the epistle) . . . Two, . . . Three, . . . Four, . . . Signature . . . Bar line at bottom . . . First endorsement (taking care of the first names of 'Via') . . . Second endorsement (second name) . . .*' The first endorsement is written, "From . . . To . . . Subject . . . Signature . . ." So is the second. It is like sending an airmail letter from Los Angeles to New York which has to change planes at Phoenix, Albuquerque, Fort Worth, Dallas, Little Rock, Memphis, Nashville, Louisville, Cincinnati, Columbus, Pittsburgh, Harris-burg, Philadelphia, and Newark. You could call this airmail if you wanted to: and the Navy can call its letter system communications.

Going back over the order books of Napoleon, one may find little masterpieces of communication. Of course. Napoleon had no system such as the one we are describing. When he had spoken, he had spoken, and it was mostly up to luck from then on. There was no evaluation and no bull pen to keep his order boiling until it was complied with. No one was assigned to the Regimental Commander as his communicator. If the Regimental Commander was in the habit of sending out "D5's," there was no way for Napoleon to find this out.

More battles are lost because of lack of communications than because of lack of strategy. The absence of back-flow has done more damage than the absence of brilliance. Many a brilliant planner has wasted his ideas by pouring them into a non-functional communications line. Nelson knew about this. He partly solved the problem by calling all his captains in before an engagement and explaining his ideas to them. He told them what he was trying to accomplish and how he intended to accomplish it, and he let them work out their own way of fitting in with his very simple plan. This was good planning, but we mention it here because it minimized the amount of communication which had to go on during the battle. Nelson solved his communications problem by eliminating much of the necessity for communications.

all communicators come to the central office, get out the mail from the day before, or from the early hours of the day, and then go back to their posts. Other organizations might wish to spread the mail job around among the various communicators at their posts. This would necessitate a special mail circuit which was clearly distinguished from operational messages and orders.

In the navies of the world, a fast communications system was evolved, the remarkable system known as "Flag-Hoist." Now it is backed up by blinkers using the same code as the flag-hoist.

A few decades ago, a fleet could operate in unison, carry out all necessary operations, convoy, fight or flee, using nothing more than a few pieces of cotton hanging on a yard-arm. In the 1941-1946 War, this system, with blinkers added, was used by a wolf pack to hunt submarines. Somewhat earlier, Genghis Khan used a similar system for cavalry operations.

An example of the flag-hoist system is this. The flag representing T (called "tare") goes up the flag hoist along with a flag representing 9. This means "Turn 90 degrees to the right." If 9 is above T, however, it means "Turn 90 degrees to the left." The flag ship runs this signal up. All the other ships do the same, in acknowledgement. The moment of execution comes as soon as all ships have acknowledged. At that moment, with all signalmen standing at alert, the flag ship brings its flags down again, and the order is executed. All the ships turn simultaneously to the right, ninety degrees. A difference in flags can make the order either "90 degrees from compass course" or "90 degrees from relative course." This system is one of the fastest in the world. The order to execute comes as fast as it could by radio. It is a good system. It keeps men alive in battle.

A principle of communication which the communicator must know is that a communications line is a good line in proportion to the abundance of theta and the paucity of MEST which are on it. MEST is matter, energy, space, and time. This means that a communications system should always look for ways to cut down the amount of material which has to be used to transmit a message; to find ways of accomplishing the task with a minimum of mechanical energy, both from machines and from human beings: to find the shortest routes through space', to use the least amount of time.

The first attempts to do this will involve, on the part of some, efforts to do away with the number of copies of a message. This will be the most obvious MEST in the system and these unfortunates will try to improve the system by cutting down the number of copies. This is quite similar to trying to cure a psychotic by disconnecting him from his brain by surgery. Cutting down the number of copies destroys the back-flow and destroys the memory. Cutting down the number of copies destroys the communications system and leaves no MEST for the theta to travel on. At this stage in man's development, his theta

requires MEST to express itself. When the race achieves universal ESP, communications systems may no longer need any MEST at all. Now, they do.

The communicator is responsible for the memory of the organization. The biggest leak in the memory of the organization will be the executive who gets on the 'phone and talks for half an hour and does not make any record of what went on or permit any to be made. In a long telephone conversation between two planners, a communicator should be listening in on the line, making notes. It does no good to record the conversation mechanically—except for court evidence. No one has time to listen to recordings. Still, a record must be kept. If the material does not get into the communications system in written form, it will be as though the conversation had never taken place. The executive may complain about making a record of the call himself. He may say that he hasn't time to do it. The communicator's answer is, "If you do not make a record of your agreement and commitment, nobody in the organization can follow through. You complain of being over-worked. The reason you are over-worked is that nobody in the organization can follow through on the things you initiate. It is not that people won't co-operate with you. It is just that they don't know what you want done. When you talk to Mr. Smith at the bank and he says he will lend you that $15,000 to put in the new arbor vitae on the front lawn, you must take the communication blank which is on your desk and write a confirmation message, giving all the data in the tersest possible form. Sign it. Send it through the communications system. It will go to Mr. Smith at the bank, and he will confirm it by signing his copy. The organization will remember it. In short, it will have happened. If you do not do this, then it never happened..."

If the executive has his own communicator, he may balk at having his conversations listened to. The argument is still the same. The communicator does not care at all what the executive says on the telephone. He does not care how long the executive talks on the 'phone or to whom. His only attitude is: "If there is no record of this call to confirm it, then it never happened, and you have wasted your time."

Executives will get used to having communicators listening in on their calls. They will learn to appreciate the value of the communicator's insisting that the agreement which is reached be stated clearly and precisely for the record. It has to be written down. If no agreement is reached, the record should say so: "Talked to Jinks of Teamsters' Union for two hours, about contract. No agreement reached. Jinks got mad,

and so did 1. (Signed) Jones." This is a useful record. This could be sent to Jinks for confirmation, even. He would confirm it. He would be glad to. This sort of thing gives the organization a record of what has been going on. If somebody says, "Jones does no work, all day long," the record is in the files to show what Jones did all day long. If there is a voice recording of the conversation, it can be filed with the confirmation report—but no one ever will play it; that is certain.

The wildest things can happen in the absence of such a system. A strange fellow turns up in the personnel office and says, "I was talking to the administrator, and he hired me for $185 a day." The personnel man thinks, "My God, that sounds like a lot of money for this guy, but maybe it's all right . . . I don't know . . ." He tries to get in touch with the administrator. "Sorry, Mr. Jones is gone for the day. He has a business conference out of town . . . won't be back till tomorrow morning." The personnel man hangs up. The fellow says, "I'm supposed to paint some murals in the banquet hall. l'm supposed to get started right away, because he's giving a party Friday . . ." The personnel man does not know what to do. He tears his hair.

When the executive is finally reached, at his home after the opera, at eleven o'clock at night, the personnel officer asks him, "Is this really on the level about ZiegschwiUen?" "Who is Ziegschwillen? And why are you bothering me at this hour of the night?" "You know, the fellow you hired today to do the . . ." "Have you been drinking, Smith?" "No sir. This fellow came in and said you were giving him $185 a day . . ." *"What?"* "Yes, sir, to do the . . ." "I never heard of Ziegschwillen! Throw him out!" "Yes, sir."

The executive is out of town until Friday. Friday morning he shows up in the banquet hall and lets out a roar: *"Where are my murals?* What was the name of that painter. Sally?" "Ziegschwillen, sir." "Ziegschwillen? . . . *Ziegschwillen* . . . Somebody was *talking* to me about Ziegschwillen . . . Now let's see . . . Who was it . . ." Communications!

Management, planners worry about morale, they ought to worry about communication. Good communication is good morale. Bad communication is bad morale. Military organi-

zations hire dancing girls, buy cola by the train load, buy baseball suits, install soda fountains, make church compulsory, in short, do almost anything to raise morale. They are trying, but they do not know what morale is. The only way to raise morale is by good, solid planning toward known goals, by providing food, clothing, and shelter (even if portable), and by keeping the communications lines up.

Good communication makes it possible for all the people in an organization to do useful work every day, instead of the administration's working forty-eight hours a day and everyone else's hanging around trying to find out what the administration wants them to do. People do not like to loaf. They do not like being off the communication line. It makes them feel that they are not really part of the operation. Management should realize that its ideas are vitally important to everyone in the organization—not so they can jump to attention, salute, and begin to dig holes and fill them up; but so they can all be part of the operation, working together toward a known, common goal.

The communicator may use this fact in his effort to sell communications to backward executives. "The organization wants to know what you are thinking, Mr. Jones. The men down in the shop can't do their job without knowing. It raises morale all around, as well as preventing duplications and waste."

Or, the communicator may have this problem: "People aren't reading your orders carefully, Mr. Jones. They are too long and too numerous. The things you have to say are too important to the operation to be lost in wordiness and contradiction. We must make these orders easier for the plant to understand, so that your planning will not be wasted."
Or, this: "Your orders are not specific enough, Mr. Jones. You have so much of this information at your finger tips that you take it for granted everyone else has, too. But some of them have not been with us long, and most of them do not see the problem in the scope in which you see it. If you cannot make your orders more specific, they may be misinterpreted, and your planning may be wasted."

The communicator will find that management likes having its planning considered valuable, likes feeling that someone does not want it to be wasted. Management which feels that it is appreciated for its planning (not for its leniency or democratic-ness) will not feel the desire to be authoritarian. Almost anyone can follow a good plan. Not many men can make a plan which can be followed. When the

communicator uses this approach, he is getting to the executive on a solid, theta line; he is using constructive reason. Every order must have an explanation. Military organizations have a law against explaining orders. it is not for a man to know why. It is for a man to do. However, men who do not know why, do not do—no matter how urgent the order is. To overcome this difficulty, the order is worded in threats: "Any man who goes off the ship on liberty before 1600 hours (4 p.m.) will be denied liberty for the next two weeks." Fine! This produces a large spirit of cooperation. And why was this order necessary in the first place? Because the preceding order said, "All men will go on liberty at 1600 hours," and there was no explanation given. The captain held liberty until that time because he wanted his ship loaded. A good reason. Why didn't he say so? How easy it would have been! "Liberty not granted until 1600. We want to get the ship loaded and ready for sea, so that we will have no worries tomorrow." Everyone would have said, "Good! Let's fix her up and then go ashore and have a good time." Instead of that, the petty officers are saying, "To Hell with it!" There are two parts to an order: the directive, and the reason for the directive. There is nothing wrong with an outright command, but it should be explained. There is nothing wrong with the commander's saying, "You men go up that hill and take it." That is not authoritarian, that is planning. But it is a poor commander who will not add, "This hill overlooks enemy artillery

SECTION SIX COMMAND LINE AND COMLINE

It is of great interest to the communicator to save the organization money. He can use this as a yardstick of the efficiency of his communications system. If he can save money by his system and within his system and still keep the communications flowing, he has a good system.

If telegrams are constantly travelling back and forth between two points, the communicator should look them over and find out what is happening. Is this much traffic necessary? Perhaps these people need to be indoctrinated in how to write a telegram. Does it take an exchange of six messages to convey information which could have been conveyed in two messages if they had been properly written? Of course, in an established communications system which was operating fully, these wires would be going through a communicator, who would not pass

them unless they gave the obviously necessary data.

Some people will try to be too brief, and so will leave out data. Some will talk a lot but forget data. Some will leave data out on purpose—and what a good communications system will do to people like that will be a pleasure to see.

When communications begin to cost a lot of money, there must be something wrong with the organization. It is up to the communicator to see this and report it to the highest echelon. "This place must be in a mess, Mr. Jones. I have two lines here that won't work at all, and there is too much communication required for the amount of work that gets done."

The executive has an automatic check on the structure of his organization, and on the operation of the personnel within that structure. Suppose that instrument manufacture has been put under the command of body division because it happens to occupy space near the body division. There will be a constant stream of communication from the instrument section to the ignition department. When the body section executive communicates with the instrument section, however, his communication line will not operate properly, because the people in instruments resent his interference. This situation will show up in the communications office. If the chief executive wants to examine his organization, he should look to see where the lines are flowing too little and where they are glutted. This will tell him either that be should indoctrinate some individuals or that there is something inefficient about his command structure.

An executive has command power in an organization. Usually, his inefficiencies are tolerated in ratio to the amount of command power he has. But the altitude of an individual on the command line is also a measure of the effect that his acts and communications are going to have on the organization. Therefore, bis idiosyncrasies should be less tolerated, when it comes to communication.

If the janitor says that he thinks the organization is full of German spies, no one will pay any attention. But if the second vice-president says, "You know, we have to be very careful. Foreign agents are everywhere. I have my suspicions about various people right in this organization," what will happen? A tidal wave of rumours, the whole plant in an uproar.

As a man rises higher and higher on the command line, he belongs more and more to the organization. When he reaches the top, he belongs to it twenty-four hours a day, seven days a week, fifty-two

weeks a year, and one more day on leap year. He is epitomizing the life of the organization. The members of the organization can respect him for this only if he communicates well to them. If he does not, he might as well not be in command.

The chief executive must be the best trained, best disciplined, most thoroughly indoctrinated person in the organization, where communication is concerned. If he wants to come to work at noon and go home at midnight, if he wants to upholster his office in purple-dyed polar bear skin, if he wants to have seven singing secretaries, this is nobody's business but his own. But if he does not communicate well, this is everybody's business, and he should be indoctrinated in communication or turn his job over to a man who can learn communication.

The chief executive is particularly important to communication not only because he is the top of the command line, but because of all the points on the command line he is the only one with command over the communications system. No other person on any point of the command line anywhere in the organization has any command over the communications system. All communicators, clerks, file clerks, and messengers are under the direction of the chief communicator, and the chief communicator answers only to the chief executive on the command line. If the chief executive understands what communications is and why the communication network has to be separate and distinct from the command network, the system will function. If he does not, very soon the communications system will begin to mingle with the command line, and at that moment the whole project can be junked.

In the past, command charts have been thought to be communications charts. They aren't. Beautiful charts, in ten colours, sit all over the Defence Department, the Navy, the Government, State Capitols, County Seats, hospitals, etc. At the top. there is the president or the chief nurse or the Secretary of Defence, and from there run lines to all members and sections of the organization. The moment people in this organization get a look at this chart and decide that it is a communications chart, the organization is as good as dead. What the secretary tells the undersecretary is supposed to be told to the assistant, who will tell it to the general, who will tell it to the colonel, and so on down the line to the sergeant, who

Fig 4 will do it. On a basis of command, this is true. But on a basis of communications, this is not true.

We would not take a planning machine, some device that was

charting courses for 195 air flights simultaneously, and put a speaker on one side of it and a teletype on the other, and expect it to listen to the speaker and whenever the speaker said "Bingo" relay that information and type "Bingo" on the teletype. This would be an interruption of the planning machine. It would be using a 195-problem-capacity computer just to relay the word "Bingo." That would be silly. But that is what is done to administrators and executives.

Some executives who are entangled in these communication-command chimeras do not realize how overloaded they are by having to listen for "Bingo" and repeat "Bingo" forty times a day. They take it all in stride until one day the man on their left says "Bingo" and they, in their preoccupation, turn to the man on their right and say "Cheese Cake." Two months later the head of the armament department receives the messages: "Forty-thousand cheese cakes have been purchased according to your order. What should we do with them?" *"What* cheese cakes?" The executive who let that one slip gets shipped out to the Wide Open Spaces, and he never knows what happened.

The commanding general tells his regimental commander. The regimental commander tells his adjutant. They think this is communications. It is not. If an efficient organization chart is to be drawn up, it must have two parts: Command and Communication. They could be drawn on the same board, in two different colours. The hub of the command chart would be the chief executive, but the hub of the communications chart would be the central communications office. The two charts would connect only in one place: the chief communicator under the command of chief executive.

A communicator exists wherever there is a command point of any volume of output. Where there is a general, there is a general's communicator. The communicator has to find out

Fig 5 (from the general) what the general wants to do, what is his goal. Then he has to find out (through the communications system) where the troops are located and whether the horses have had fodder. "General, sir. The horses have been without fodder for five days." "What! I didn't know that." If the general has a communicator he finds this out in time to make another plan. If he has no communicator, the cavalry charges a hundred yards and all the horses fall flat on their faces. "They have been without fodder for five days, General." "Why didn't somebody tell me?"

Somebody didn't tell him because he was in command. Command

has the habit of assuming to itself pompous robes, and so information does not flow up to it easily. If the information flows up to it at all it is usually from some highly manic individual who charges in under a full head of steam and spills a great load of entheta. An organization can be wrecked this way.

When the general has had to put up with a certain amount of this sort of thing, he goes crazy and makes a rule that all his orders are to be obeyed and that nobody is to ask why. This, then. produces a modern military organization.

A communications station should exist for every command post, or terman. A shadow of this exists today in secretaries. But the secretaries are under the command of their executives. They have no power to demand and produce good communications. They do the best they can, but they depend too much on the good will of the executive. If the executive hates to communicate, the secretary does not dare to communicate, for fear of losing her job.

In the army, the adjutant cannot be a good communicator because he is too dependent on the general. His promotion depends on whether or not he is cheerful and happy and can balance a cup of tea properly at parties.

The adjutant says to the general, "General, sir, the ammunition is sitting in ten feet of water." The general jumps, then looks angry. "Well, don't tell them anything about that."

SECTION SEVEN MAIL AND THE LITTERED DESK

One of the biggest jobs of any organization is mail. Some or-ganizations have mail as ninety-five percent of their operation. Others just have a whopping big number of letters to write. But people, for some reason, seem to take mail for gr-anted: "Well, I haven't anything to do this afternoon. I guess I'll catch up on some of my mail." Mail is the first point at- which any organization's communication breaks down.

An executive's desk is sometimes as clean as a new penny-but don't open the centre drawer: there is a month's accumulation of letters in it! There is a good reason for this. The executive's time is being taken by many people and many problems. He keeps putting things off. He says he will make up his mind about it Tuesday. By Tuesday, he has forgotten about it, and it dies in his desk drawer. That centre desk

drawer of the executive is the bottleneck in the organization.

An executive's desk should be as littered and confused as the operation is. If there are a lot of loose ends in the operation, there should be a lot of loose pieces of paper on the executive's desk—one for each loose end. **Or,** there should be a communications system which will keep these things in plain sight until they are cared for.

Nothing should **be** filed until it is dead. If it is filed before it is dead, it dies in the file, and after a while the organization begins to develop a very unpleasant aroma.

If the organization is not confused at all, the last point of clearance should be the executive's desk. The beautiful clean desk is just a myth. "Grapnel is so efficient! His desk never has anything on it at all." This statement presents two possibilities: either it is false or it is true. If it is true, it represents an organization without flaw.

An executive should not have to answer mail if he does not want to. Mail is a function of the mail section. If a letter comes, asking for employment, the executive may care to read it, but he may not care to answer it. Under normal circumstances, if he has no secretary, this will mean that the letter does not get answered—which is bad public relations for the organization. There may be a big, expensive public relations department trying to build up affinity with the public, but the real public relations of this company consist of business relations. So the letter should be answered. A mail section would answer this letter. The executive would write "Answer: insufficient experience, no position open. Jones." The mail section would write a letter. Mail would not pile up on Jones' desk.

On the other hand, if Jones likes and has time to answer his own letters, he should not be allowed to monopolize the time of the communications system by calling a girl into his office every half hour to take dictation, while he hems and haws. He should do his hemming and hawing into a dictating machine, if he cannot face a typewriter.

Let us imagine an organization in which there are a hundred command points at which letters are likely to be written to the public, but only twenty of these are important enough to have their own communicators. For the other eighty, there might be a travelling dictation-machine service as well as a quiet room for dictating. All the records dictated but untyped in one day would be taken by the mail battery, and letters would be typed, first thing in the morning. There might be many ways of arranging this, to suit different organizations. The objective would be to have all letters going through the system

with the least amount of effort on the part of the system and of the command points. Ideally, mail would be handled like this:

A letter arriving in the mail, addressed to Jones, would be opened by the mail section (unless it was marked "Personal"). It would be read by a communicator (not a clerk), and an office communication form would be written up containing the substance of this letter. This form, accompanied by the letter itself then would go through the system to Jones, as a communication from the mail section to Jones. Jones would have to act, of course, because the bull pen would be watching the progress of this communication. Note that the letter is not the communication: the letter is only "exhibit A," which goes along with the communication for reference. When Jones decides what he wants to do about the letter, he completes the communication, and the mail section then answers the letter according to Jones' order. Now the organization has full memory of this letter and answer, just as it has of all other operations. The communication about the letter will work properly in the file system, and the letter will be kept for reference.

When this system has been in operation for a while, mail no longer will come addressed to Jones. Jones will still be there, but letters will be addressed to the organization, and the communications system will decide who is the best individual to take action about each letter. Some letters will have to be acted upon by several individuals. The system will analyse the proper handling of each and co-ordinate it to achieve the quickest action. How many projects lag because letters have to be passed around physically from desk to desk and department to department, in order to get final action!

The communicators who answer all the letters of the organization are expert letter writers, or become so. The letters of the organization begin to take on a recognizable quality: they are clear, friendly, tactful, and prompt. Jones may have written on his order, "No qualifications, no positions open if he had." But the letter-writer will make the applicant feel that National Products Co. is a fine outfit even if they cannot give him a job. This is public relations.

SECTION EIGHT DEVELOPING AN ORGANIZATION'S BRAIN

It is the communicator's responsibility to handle in the best possible way all communications. Therefore, it is his responsibility to keep himself informed about existing communications facilities, to use the best equipment and methods, and to keep his staff informed about these things. (Heretofore, knowledge and operation of equipment has been considered the *only* job of a communicator.)

The communicator will know all the tricks for fast, volume communication at low cost. It may be that an organization has a moderate volume of high-velocity information every day between Los Angeles and New York. It would be up to the communicator to find the best way to transmit this. A news service, which transmits twenty-four hours a day, may prefer a slow, expensive workhorse like the teletype. But teletype is for constant use.

Perhaps the organization in question would do best to have a daily long distance telephone call, station to station, at the same time every day. There is a stenographer or a steno-typer at each end of the line. Three minutes of transmission each way. Then they hang up. The communications systems at each end have an hour to get the answers ready—those that take longer wait till the next day. Then the call is repeated at half the length. Cost: nine dollars a day, 45 dollars a week, 2,300 dollars a year.

The amount of real information which can be transmitted by a trained communicator to a legal stenographer in nine minutes is large. At least a thousand words could be transmitted and read back in those nine minutes by expert communicators. An equivalent number of words by telegram would cost more than sixty-five dollars, or more than seven times as much. The communicator would have to know about such matters.

It is possible, through a communications system, to organize files so that they are action files, so that they are the memory of a mind which thinks. A file should have three sections: (1) the action file, which holds a datum that calls for action at a certain time, and injects it back into the system at the proper moment, (2) working files, which hold the information that is valuable to the operation, (3) Dead files, which could be junked without any loss of value to the operation.

The action file would *not* be housed in a closed filing cabinet. It would be out in plain sight, working all the time. Such a file can be visualized as an expanse of coloured tabs with communications, hanging in racks. It also can be visualized as a battery of file machines and action card indexes. Whatever its form, it is alive with activity at all times.

The working file must be organized so that the information in it is available in association with related material, like the data in a mind. If it is not so organized, then it has no information in it, no matter how many facts are written down on pieces of paper in filing cabinets. The information should be organized, indexed, cross-indexed, and activated so that when a communication comes through the system a quick review of the related data can be made, as in a mind.

The Navy file system is beautifully organized, but it does not tell anything. It is a filing system only, not a brain. Action and working files are a brain, which hold the memory of an organization. Closed file drawers, unorganized and unindexed, contain not memory, but library facts. They are useful only to the scholar.

A communications system is a reason system. It produces reason on an organizational level, just as the individual minds of the personnel produce reason on an individual level.

A CIC (Combat Information Centre) could be organized, using the

will come up for examination
the planner or communicator c

The construction of a brain
a computing machine. A c
language into which everythi
brain must be able to perceiv
universally, without special p
the real work must be done b
processes. The brain is only
thought operates.

communication system, which would take care of the planning of an organization. A project would be initiated by management, and the brain of this organization would go into action to supply management with all the facts about the problem, arranged and related to present the best way of proceeding. Management would have to supply the direction of the operation, to supply the motivation. If the organization had good action and working files, decisions on problems that would arise would be almost automatic. How convenient for management to be thus freed to devote itself to *creative* planning—to letting the organization solve its own problems, while management looks around for new problems to solve, new fields to conquer!

The commander of a fleet does not have to supervise the aiming of guns. The CIC's do that. They find the enemy, aim the guns, and pick up the survivors. The CIC can perform any operation which has been performed once, or which is similar to one that has been performed once. This frees the commander to think up operations which never have been performed. This is what keeps the enemy off balance.

Management has a hard time in big industry because of the lack of an organizational brain to do the routine planning. One can imagine the industry of the future, in which management devotes many hours to an examination of goals and plans and a minimum to administration, in which management is able to be less a lion tamer and more an architect.

The communications system should put out a regular bulletin on the operation. A summary of each week's activities should be made from the time file. Summaries of activities in various departments and along various lines should be made from the departmental files and from the subject file. All information that goes into files should be summarized in two or three separate reports. Then these reports should be further summarized into an operational bulletin for all to read. The purpose of this is the development of a brain in which any fact can be found and in which all facts which pertain to a given order

SECTION NINE ADOPTING A SPECIFIC SYSTEM

In order to put a communications system into effect, it is necessary to have a specific system in mind. The system which is offered here is not the only possible one, but it combines many desirable features which have been discussed above and eliminates undesirable ones.

Figure 7 is an arrangement for the standard communication point or station. Two stacks of four file trays are labelled INCOME, OUTGO, UNACK, UNCOMP, MUSACK (MUST ACKNOWLEDGE), MUSCOMP (MUST COMPLETE), and FILE. Unack and uncomp are used for the communications which originate at this point. Musack and muscomp are used **for** communications which originate at other points and which must be completed at this point.

All messages which come to this point are placed by the messenger in the income tray. All that are going out are picked up by the messenger from the outgo tray—-or from the file tray, if they are completed. The communicator of this station operates the station for the person or persons who are doing work at this desk or office or department. Many persons will serve as their own communicators. Others, like men working in shops, will share a communicator who will serve that department or section or group.

Although a communicator is present, a message will not be acknowledged until it has been presented to the actad (action addressee) or to some assistant of the actad. If the individual is not in his office,

this fact will show up in the central office as an unacknowledged message.

The four copies of the message will be on papers of different colours. WHITE is the action copy, or comp copy.

YELLOW is the ack copy. BLUE is the communicator's copy, which works in the central office, until the communication is completed. GREEN is the originator's copy, or orig copy.

Nudges (Communication-office queries as to the progress of a message) are pink for the first and red for the second.

Infads (meaning "information addressee") are of buff or some neutral colour. Such a message has only one copy. (See figure 7.)

Figure 8 shows the flow of a message from Desk "A" to Desk "B," through the central office. The dotted line represents a message which does not travel through the system. This message does not get filed, and so as far as the organization is concerned it never happened.

Figure 9 shows this flow again, and the return flow. The arrangement of the central office is different as to the space devoted to the various slots. The central office will originate only a few messages, most of them nudges, probably. But it will handle all the messages which are originated by anyone. Therefore, a great deal of space must be devoted to musack and muscomp. Muscomp probably will develop into an action file, in which every piece of work is estimated for completion time and moves up in the file, day by day, until it comes due. The central office shoulders the responsibility of the whole organization, where musacks and muscomps are concerned.

All copies are to be filed in the central filing department (see figure II). The central office has only one copy, during the passage of the message. When the message is completed, the blue copy goes into the WAIT FILE box, to wait for the other three copies to come back from the originator. When all four copies are together, they go into TO FILE, and then to the filing department.

Figure 10 is a sample message, and a design for rubber stamps for ack and comp.

Fig 6 Fig 7-10 It is felt that the date, 12 May 52 is a better form than 5/12/52 or 12/5/52, since it never can be ambiguous. The months can be abbreviated to three letters throughout: Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec. The slanting dates are central-office time stamps. This message is as it would look upon being received back by the originator, the job having been completed.

If Jones didn't know enough to infad accounting on this message, the central office would do so automatically.

Figure 12 shows the filing department, which is a sub-section of the communications system and is under the control of the chief communicator and no one else. It is the memory of the organization.

As the system develops, the files will be used on an automatic association basis, to evaluate any and all communication in the light of past experience. When a message comes through, the evaluator will attach copies of pertinent data from the files to the message, before the communicator will let the message go through. This, with the new duplication process, will be only a matter of a minute.

Filing evaluation will make continuous evaluation and synthesis of the data in the files, so that the usefulness of the memory will be increased by keeping the active and important data accessible and allowing the inactive and unimportant data to be indexed or colour-marked so that attention will not be wasted on it.

Eventually, the system will function like a mind: perception, evaluation, decision, action. Executives will have good, evaluated data and complete data upon which to base decisions. And they will not have to worry about the completion of actions,

since the system will make sure actions are either completed or reported as incomplete, while there is still time to make another decision.

Sometimes there will be a terman (an individual who is served by a communicator) who is removed from the plant. An organization in New York might have a small office in

Fig 11 Chicago. If this office is to be in the communications system of the organization, the communicator for this Chicago office will be in New York. This communicator will set up a station for the Chicago office, and all messages going to the Chicago office will go to this station. None of the white copies, however, will be forwarded to Chicago. Instead, a duplicate will be sent, or a phone line will be set up. In this way, no unwieldy factor of distance is introduced into the system (see Figure 12).

If the terman in the Chicago office wishes to keep track of his comstation in New York, he can set up a duplicate station, using duplicate forms from New York, or using forms which he writes himself from information gotten through the phone line. This duplicate station does not work in the system. It is only for his convenience, like the duplicate files he probably will have also. Such an individual would be called a "ter-mote." If the office contained more than one individual, it could be served as a group by one station (in which case it would be called a "remote terminal"), or a station could be set up for each terman.

If the terman was travelling from place to place, or if the group was travelling, the same procedure would be followed. In this case the terms "roving terman" and "roving terminal" would be used.

There is a clear and important distinction to be made between a post and a station. A post is a place where there is a communicator. A station is merely a set of slots dedicated to one terman or terminal. One post might contain a hundred stations, and still it might be only a small post, if each station carried a very small volume. On the other hand, one post might contain only one station and be a big post, since the volume of that one station might be enormous, requiring large action files within the various positions (MUSACK, MUS-COMP, etc.) of the station. Such a post would have several communicators.

Figure 12 In some cases, there will be two offices, in different places. which are of similar size and volume of communication. One of these may be the main office, in terms of command. But in terms of communication, they will be nearer equality. It will be necessary to set up each office with a corncentre. Each office will be a self-contained comsy stem.

Two possibilities exist in this case. One is the possibility of duplicating the memories of the two systems. This does not mean that every single piece of paper in one must have a duplicate in the other, although this would be quite possible. What it probably means is that condensed, evaluated material from the subject file of one will be sent in duplicate to the other. If more detail is required, a more detailed duplication can be requested on any given subject.

The other possibility is an intermediate arrangement, whereby one system is considered a major system and the other a minor system. The major system would appropriate the files of the other, but would not send anything in return, unless it was specifically requested.

In either case, mail between these two offices would partake of the character of mail to other firms, except that it would follow all the rules which were followed in the communications systems within the offices. It would be a simple matter to route this mail directly through either system, by using duplicates. A special post would exist in each office, just to handle this mail and to co-ordinate it with the internal communications system. This post would have nothing to do with the regular mail section.

The regular mail section is a specialized part of the system. It is

really a cross between a production department and a communications post. In respect to the organization, it acts like a production department. Its product is letters. Letters, of course, are NOT part of the comsystem, but are used only to reach outsiders through the mail.

The mail section will try to make its letters conform more and more to the rules of communications. As time passes, people on the outside will find that certain firms send them not letters, but communications. Eventually, the letter will disappear from business usage, and the communication will take its place. The wasteful process of writing letters will be dropped altogether, and duplicates of communications that have passed within the organization will be sent out to termans and terminals which are not part of the organization.

The mail section is keeping a station for every person to whom it sends anything on the outside. Or rather, the whole outside world is considered a remote terminal, and the mail section is a post which is used by the communicator who keeps the comstation for the world. The world will be just one more terminal in a comsystem which contains many terminals and termans.

Until the world is ready to accept communications, however, the duplicates which are sent will be modified to look somewhat like ordinary letters.

Mail will be filed right in the mail section and will never be allowed to get out of that section and into the system, even as an exhibit "A," except in unusual cases.

SECTION TEN SOME PROBLEMS OF EXECUTION

In one group which was doing a pilot project on a communications system, a conference was held and questions were asked which had come up during the operation of the project. Some of the questions and answers follow: Q: Do infad communications have to be acknowledged? A: No. If the comsystem is so poor that infads have to be acknowledged, the solution is to get a new chief communicator.

Q: Who decides what termans are to be infads on any given message?

A: The originator, of course, can designate anyone he chooses as an infad. In addition, the corncentre communicator will evaluate each communication to see who should be an infad of it. The corncentre will always infad anyone whom the originator designates, but it will never assume that the originator has designated all the necessary infads. It will always evaluate the message. Q: What is the function of a group communicator? A: In any organization, there may be a small group within the large group which wants to be considered as an entity. The most likely case is the "labour" group, the employees as distinguished from the upper management.

If the employees have a meeting, they may desire to be served, for that meeting, by a communicator, who can summarize their decisions and enter them into the comsystem, so they will be part of the thinking and memory of the whole organization.

This could be standardized, so that every week the employees would have a meeting, and communication between management and employees as two groups would be established. The communicator might extract from the files all new information and summarize it for the group, so that the employees would know what was going on in the business. He also would infad the management on the data which the group wished the management to have.

Q: What is a conference communicator? A: A communicator who sets up a temporary station for a given conference, so that the information which is developed in the conference may get into the system. This is the general function of which the employee-group communicator is a special case.

Conferences are communications. When two men get together over a table or desk and have a long talk about what they are going to do, the things they decide (not everything they say) belong in the in Cape Town. The communicator in Montana might not know whether the orig was a genius or a fool—and he might need to know. But in a relatively small system, the only evaluation which would commonly be used would be that of velocity.

Q: Should all messages be marked for velocity? A: Not normally. Normally, only the higher velocity messages would be marked. Unmarked messages would automatically be rated at traffic velocity. Remember that any high-velocity rating causes some interruption of the main flow through the system, and it should only be used when that interruption is justified. If the system is a good one and is not overburdened, even traffic velocity will be fast. The chief communicator will make it his pet project to try run all messages at the highest possible velocity. He will want the velocity of the *system itself* to be naturally very high.

communications system. If the conference is a long one, or if many people are involved, a communicator should attend it to take notes. He should sum up the points made and the agreements reached and make out a communication summary of the meeting, which should then be signed by the participants. Copies of this summary should go to affected points on the command line, and the original should be filed.

This does not mean that every time two persons meet at the water cooler there should be a communicator present, nor that they must make out a report of what they say about the girl in the third row, second desk, and send it through the system.

It means that if what they say is part of planning, if it is intended as an operational communication from one man to another and not just social chatter, it should go into the memory of the organization, like any other communication. If it does, there can be no disagreement about what happened in the meeting. If it does not, then the meeting never happened, and if one of the parties wishes to shirk his responsibility in the matter discussed, there will be no way to call him to account.

Q: What is the proper size for a communications form?

A: Any size that works is the proper size. Present thinking is that 8 X 5^ inches is a very practical size.

Q: What is the most practical way of making the four copies?

A: To date, thin paper with carbon backs. Q: Are file folders good substitutes for boxes or racks in the station positions?

A: No, they are very poor, since they require much handling and nothing is visible in them, at a glance.

Q: How can a busy communicator best arrange his MUS-COMP position for efficiency?

A: If the volume is great, action files are used. One method of setting up an action file would be to hang the blues on a wire like clothes on a line. They could then be shifted around at will, according to the time-estimate which was put on them for completion.

In a small corncentre, boxes or hooks on a board might be useful. In a very large corncentre, special racks and wheels might be designed.

Q: Is there any way to cut down the 'phone bill to a remote terman?

A: Yes. Set up a code system and a regular time for the call so that it will not have to be person-to-person.

Q: How can you get secretaries to act as communicators and communicators to act as secretaries?

A: Two situations exist. In the very large firm, comsystem personnel will not be confused with production personnel. A communicator who

is asked to do production work may properly refuse to do so.

In a small firm, people will serve in both capacities. There may be some friction at first between the two functions. People may forget whether they are being communicators or producers. If they remember which they are being, however, they will be able to function properly. This is a matter of indoctrination.

We might imagine that conversations such as the following, between Jones and his secretary-communicator. Sally, might take place:

SALLY: (Returning to Jones a communication which he has just written.) Mr. Jones, this is not a proper communication. You have not stated the reason for your request to the painter to paint the front door fire-engine red. JONES: Well, just send it that way. It's all right. SALLY: It's not a communication, Mr. Jones. It has to have a reason to be a communication. JONES: Say, are you my secretary, or not? SALLY: Yes, sir. I'm your secretary, but I'm also your communicator, and as your communicator. I'm saying that this is not a proper communication, and it won't go through the line. I could send it out, but it would come right back, so why waste time?

JONES: You'd better do what I tell you to do, or I'll get a new secretary.

SALLY: Well, you can get a new secretary. But right now I'm your communicator, and you can't get a new communicator without sending a communication to the chief communicator, telling him you want a new communicator and the reasons why —which is just what's the matter with this communication here: no reason.

JONES: We'll see about that! (Picks up telephone) Hello, personnel. I want to fire my secretary. (PERSONNEL): (Okay, fire her.) JONES: You're fired!

SALLY: All right I'm fired as a secretary, but I'm still your communicator, and as your communicator I'm still telling you that that is not a proper message.

JONES: (PICKS UP TELEPHONE AGAIN) Hello, personnel? I want to fire my communicator . . . What?? I can't? (HANGS UP AND LOOKS DEJECTED.) (TURNS TO SALLY.) Let's talk this thing over. Now, Sally, what do you want me to do?

SALLY: Just make a proper communication . . .

JONES: (TAKING THE PAPER) All right. I'll tell therr the Firemen of America are having a convention across the street and we want to show them that we appreciate them.

SALLY: That's fine. That will go through . . . Now, Mr. Jones, I have

finished those diagram corrections you asked me to make, and here they are.

JONES: Oh I You've done them all wrong . . . but, of course, I can't fire you . . . so I guess there's nothing I can do about it.

SALLY: Of course you can fire me. I'm your assistant. I'm doing this work for you. It has nothing to do with communications, so fire me.

JONES: (SEEING THE POINT, AT LAST) Well, actually, you only made a couple of little mistakes. We can fix that up. SALLY: Thank you, Mr. Jones. JONES: Thank you. Sally.

Q: Should the MESSAGE FORM (the identification line of a message) be as short as the sender can possibly make it?

A: Yes and no. It should be as short as the sender can make it *without* leaving out necessary information and *without* making it unreadable. A jumble of letters and numbers is not identification, it is obfuscation. A message form which read "0230P5/18/52/Smith-Jones" would not be particularly helpful to the reader. It would be confusing. The sender should have written something like "230P 18May52 Smith to Jones." It is always a good practice to make the message form readable, even at the cost of a few extra pencil marks. Q: Is it necessary to include the year? A: That depends on the time-stamping arrangements in the system. If all communications are to be time-stamped, there would be no need for the year in the message form. In fact, if the system is good enough, there would be no need for the orig to make any time or date designation at all. Time stamps would be put on the communication white, yellow and blue almost before the ink was dry. so to speak.

Figure 13 Q: Why are the names of the months used? A: Because they cannot be ambiguous. If they are uniformly abbreviated to three letters, they will work in any kind of system just as well as numbers, if not better. Some organizations may prefer to use what might be called "end abbreviations," such as "Jny, Fby, Mch, Apl, May, Jne, Jly" for some of the months, but these become difficult for such months as August, September, and so on. Probably the abbreviations which are given in Section Nine will be the most popular.

Q: What if there is more than one Smith in a given organization?

A: If there are two or more originators named Smith, the system must give them code names. These should be something which can be pronounced. Joseph P. Smith should be called JoSmith rather than JPSmith.

Q: The text gives examples of originators who are too wordy, but what about those who are not wordy enough? Do they exist?

A: They certainly do. There is a kind of individual (usually, chronically angry) who delights in giving just enough data to make the actad angry but not enough to make him want to comply with the order. This is why it has been stressed that every order must have a reason stated in it.

Q: Is there any place for human emotions in the communication system?

A: Definitely, yes. The system transmits emotion as well as data. Some of the emotion which it transmits may be erroneous, however, as in the case of the too-brief message which seems sarcastic or demanding. Some of it will be quite accurate.

Q: What should a communicator do if her terman hands her a communication which says, "Jones to Smith: Damn you, Smith! You can go straight to the Devil! Reason: I hate you!"? Should she send it?

A: She should not censor it, at any rate. Probably she should ask Jones if he really wants to put such a low-affinity communication into the system. If he says yes, then she should send it. The communications system exists to communicate, not to control. If there is great animosity between Jones and Smith, this fact should be recorded in the mind of the organization—not hidden away somewhere, to make trouble later.

On the other, hand, Jones may be in the habit of saying to his communicator, "Send a message to Smith, and tell him to go to the Devil." The communicator may know that this is merely the way Jones talks in his office when the door is shut, and that he would not think of saying this to Smith in so many words. Therefore, she merely sends Smith a refusal, including a valid reason for the refusal. If Jones has not given her a reason, she must get one from him, of course.

Q: What about the hot-tempered executive who is his own communicator?

A: The hot-tempered tercom is a problem. No communicator is on hand to reason with him. He must be indoctrinated by the chief communicator, so that he will know what kind of an effect low-affinity communications can have in the organization.

Very probably the new tercom will not realize at first just how accurately a good communications system transmits his black moods or sudden rages. He may have grown used to being screened from public view by a battery of secretaries, and his first entries into the communications system may be like an auto horn in the music hall. Eventually, he will learn that statements which are put on comline are distributed far, wide and fast and that they are remembered by the

organization. He will then give up his bad habits and become a good communicator, who only gives out angry messages when he is genuinely and justifiably angry.

A terman who consistently injected any kind of entheta into the system (anger, sarcasm, despair, slyly destructive suggestions) would soon find himself on the end of a very dead comline, since it would be the duty of the system to cut the line to him—or, if the line were an important one, to remove him from it.

Q; If the system did not have some fast method of producing duplicates, so that the corncentre could infad all affected departments on any communication whenever it wanted, how could the problem of infads best be handled? Who should make the copies?

A: The originator is the most logical person to make the infad copies, since he has to write the message once anyway. Most probably, in new comsystems, origs will make infad copies. As the systems grow, however, and as new "dream methods" are developed for making really fast (five-second) duplicates, the entire duplication process will shift to the com-centre, and even if the orig wishes to infad some third party on one of his communications, he will merely designate this on the white, and the corncentre will make this and whatever other infad copies it sees fit and send them out.

Q: What is the fundamental difference between the actad message and the infad or the daad (data addressee)?

A: The difference lies in the amount of work which the system does to expedite the message. The actad message has four copies, each of which is under the eye of some individual and each of which is demanding that the message be acknowledged and completed. Infads and daads are just lonely little pieces of paper which have left no duplicates behind them so that the sheriff can send out a posse if they don't come home by midnight. They are on their own. Of course, infads are not so vital as actads, and so they do not need so much shepherding. And daads, which are very vital, since they represent a need for data to keep the wheels turning from minute to minute, cannot go far astray because the sender is anxiously waiting for an answer. Infads and daads are the casual remarks and quick inspirations of the communications system. Actads are the routine thoughts.

Often, a communicator will find that an infad will do very well where it was thought that an actad was needed. As the organization becomes more spontaneously creative, information will produce results without any need for direct orders.

Q: Will the communications system bring about a tremendous amount of communication paper work?

A: The system will bring about a tremendous amount of *communication.* It will not bring any added paper work— particularly in the long run.

One of the main purposes of the comsystem is to mirror the function of the organization. The chief executive can look into this mirror and see where the function needs rearranging. He can put functions in different places until they are where they belong. When the optimum command structure has been achieved, by the use of this mirror, the amount of paper in the communications system may fall quite low. But the amount of communication in the organization will be very great. The organization will know what it is doing.

A very great volume of communication paper is a sign of some error, either of command structure or of communication practice on the part of some individual or department. Q: Are infads and daads returned to the file? A: Yes. The organization wishes to remember all its thoughts, not merely its command thoughts. Q: Are evaluation marks necessary in the message form? A: No. Evaluation is always necessary. Any person in the system must be able to evaluate information and must make a practice of doing so. Writing this evaluation on the message, however, is a somewhat arbitrary procedure, and it will seldom be used in a small system. Q: What about in a big system?

A: In a very large system which covered a great deal of territory or which handled a great volume of flow, evaluation marks might become indispensable to the proper expediting of messages. A communicator in Montana who received a communication from Cape Town might have no idea of the proper velocity, importance and reliability of the message unless these had already been estimated and recorded by the communicator in Cape Town. The communicator in Montana might not know whether the orig was a genius or a fool—and he might need to know. But in a relatively small system, the only evaluation which would commonly be used would be that of velocity.

Q: Should all messages be marked for velocity? A: Not normally. Normally, only the higher velocity messages would be marked. Unmarked messages would automatically be rated at traffic velocity. Remember that any high-velocity rating causes some interruption of the main flow through the system, and it should only be used when that interruption is justified. If the system is a good one and is not overburdened, even traffic velocity will be fast. The chief

communicator will make it his pet project to try run all messages at the highest possible velocity. He will want the velocity of the *system itself* to be naturally very high.

SECTION ELEVEN

GROUP GOALS AND MANAGEMENT (From an Essay by L. Ron Hubbard)

It is an old and possibly true tenet of business—at least where business has been successful—that management is a speciality. Certainly it is true that ruling is a specialized art and craft not less technical than the running of complex machinery and certainly, until Scientology, more complex.

With our present technology about groups, it is possible to accomplish with certainty many things which before came out of guesses when they emerged at all. Management in the past has been as uncodified in its techniques as psychiatry, and management, with reservation, has almost always been a complete failure. Men were prone to measure the excellence of management in how many dollars a company accumulated or how much territory a country acquired. These are, at best, crude rules of thumb. Until there was another and better measure, they had to serve. To understand that these are not good measures of the excellence of management one has only to review the history of farms, companies, and nations to discover that few have had any long duration and almost all of them have had considerable trouble. Management has failed if only because the "art" of managing as practised in the past required too much hard labour on the part of the manager.

Until one has considered the definitions of wealth and expanded territory and has taken a proper view on what these things really comprise, one is not likely to be able to appreciate very much about management, its problems or its goals. Hershey, a brilliant manager with a brilliant managing staff, failed dismally as a manager because he neglected the primary wealth of his company—his people and their own pride and independence. His reign of a company ceased with his people —well paid engineers and labourers, well housed, well clothed —shooting at him with remarkably live ammunition. The brilliant management of Germany came within an inch of restoring to her all her conquests of former years, yet laid Germany in ruins,

Before one can judge management one has to consider the goals of an enterprise and discover how nearly a certain management of a certain enterprise was able to attain those goals. And if the goal of the company is said to have been wealth, then one had better have an understanding of wealth itself, and if the goal is said to have been territory, then one had better consider what, exactly, is the ownership of territory.

Goals and their proper definition are important because they are inherent in the definition of management itself. Management could be said to be the planning of means to attain goals and their assignation for execution to staff and the proper coordination of activities within the group to attain maximal efficiency with minimal effort to attain determined goals.

Management itself does not ordinarily include the discovery and delineation of the goals of a group. Management concerns itself with the accomplishment of goals otherwise determined. In large companies the goals of the group are normally set forth by boards of directors. When this is done, the goals are assigned the nebulous word "policy." In governments, goals, when they are assigned at all, generally stem from less formal sources.

Nations are so large that until they embark upon conquests they usually have few national goals which embrace all the group. The government personnel itself has the goal of protecting itself and exerting itself in management and the remainder of the group bumbles along on small sub-goals. When a goal embracing a whole nation is advanced and defined, the nation itself coalesces as a group and flashes forward to the attainment of advances. It is an uncommon occurrence at best that a nation has a goal large enough to embrace the entire group: thus governments are normally very poor, being management with only the purpose of managing. Asia Minor, given a goal by Muhammet, exploded into Europe. Europe, given a goal by certain religious men to the effect that the city of the Cross had better be attained, exploded into Asia Minor. Russia, selling five-year plans and world conquest plans and minority freedom plans, can have a conquest over any other nation without any large group goals. A good goal can be attained by poor management. The best management in the world never attained group support in toto in the absence of a goal or in the embracing of a poor one. Thus Russia could be very badly managed and succeed better than an excellently managed but goalless United States (for self-protection is not a goal, it's a defence). Marx is more newly dead than Paine. The goal is less decayed.

Companies obtain, usually, their "policy" from an owner or owners who wish to have personal profit and power. Thus a sort of goal is postulated. Nations obtain their goals from such highly remarkable sources as a gaol bird with a dream of a conquered enemy, a messiah

with cross in hand and valhalla in the offing. National goals are not the result of the thinking of presidents or the arguments of assemblies. Goals for companies or governments are usually a dream dreamed first by one man, then embraced by a few and finally held up as the guidon of the many. Management puts such a goal into effect, provides the ways and means, the co-ordination and the execution of acts leading toward that goal.

Muhammet sat alongside the caravan routes until he had a goal formulated and then his followers managed Muham-metanism into a conquest of a large part of civilization. Jefferson, coding the material of Paine and others, dreamed a goal which became our United States. An inventor dreams of a new toy, and management, on the goal of spreading that toy and making money, manages. Christ gave a goal to men. St. Paul managed the goal into a group goal. In greater or lesser echelons of groups, whether it is a Marine company assigned the goal of taking hill X428 by the planner of the campaign, or Alexander dreaming of world conquest and a Macedonian Army managing it into actuality, or Standard Oil girdling the world because Rockefeller wanted to get rich, the goal is dreamed by a planning individual or echelon and managed into being by a group.

The dreamer, the planner, is seldom an actual member of the group. Usually he is martyred to a cause, overrun and overreached. Often he lives to bask in glory. But he is seldom active management itself. When he becomes management, he ceases to formulate steps to be taken as lesser goals to greater goals and the group loses sight of its goal and falters. It is not a question of whether the dreamer is or is not a good manager. He may be a brilliant manager and he may be an utter flop. But the moment he starts managing, the group loses a figurehead and a guidon and gains a manager. The dreamer of dreams and the user of flogs on lazy backs cannot be encompassed in the same man,for the dream, to be effective, must be revered and the judge and the task master can only be respected. Part of a goal is its glamour and part of any dream is the man who dreamed it. Democracy probably failed when Jefferson took office as president, not because Jefferson was a bad president but because Jefferson, engrossed with management, ceased his appointed task of polishing up the goals.

According to an expert on history, no group ever attains a higher level of ideal or ethics than the moment it is first organized. This observation should be limited, to be true, to those groups wherein management has been assigned to the dreamer of the dream. For in those cases where the dreamer was ably supported, the tone of the group remained high and the group continued to be brilliantly effective as in the case of Alexander whose generals did all the generalling and Alexander, a brilliant individual cavalryman, set examples and pointed out empires.

But whether a group has an Alexander or a wild-eyed poet or an inventor doing its goal setting for it, the group cannot be an actual or even an effective group without such goals for its achievement and without management brilliant enough to achieve those goals.

Having examined the source of such goals, one should also examine the character of goals in general. There are probably as many goals as there are men to dream them. probably more. Goals can be divided into two categories, roughly. The first would be survival goals and the second would be non-survival goals. Actually most goals are a combination of both for goals are occasionally set forth solely for their appeal value not for their actual value. One sees that the goal of a nation which directs it to conquer all other nations ends up, after occasional spurts of prosperity, in racial disaster. Such a goal is not dissimilar to the money goal of most "successful" industrialists or boards. One might call such goals acquisitive goals entailing, almost exclusively, the ownership of the MEST accumulated through hard work, by others. Technically, one could call these EnMEST goals, for conquest of nations brings about the ownership of MEST which, by conquest, has been enturbulated into EnMEST and which will make EnMEST of the conqueror's own land eventually.

Rapacious money gathering gains EnMEST, not MEST, and makes EnMEST of the rightful money of the acquisitor. Such goals, since they tend toward death, are then non-survival goals. Survival goals are good and successful in ratio to the amount of actual theta contained in them, which is to say. the ability of the goals to answer up favourably on a maximum number of dynamics. A survival goal then is actually only an optimum solution to existing problems, plus theta enough in the dreamer to reach well beyond the casual solution. A group best catalyses on theta goals, not only to a higher pitch but to a more lasting pitch than a group catalysed by EnMEST goals as in a war. It can be postulated that theta goals could bring about a much higher level of enthusiasm and vigour than the most grandly brass-banded war ever adventured upon.

Another postulate is that a goal is as desirable as it contains truth or true advantage along the dynamics.

A group, then, can be seen to have three spheres of interest and action. The first is the postulation of goals. The second is management. The

third is the group itself, the executors of the plans, procurers of the means and enjoyers of the victories.

These three factors or divisions must be satisfied to have a successful group or, actually, a true group. The divisions are not particularly sharp. The desires and thoughts of the body of the group influence and catalyse and are actually part of the goal dreamer. Management has to have the support of the group and the provision of the group to proceed at all and thus must have the agreement of the group for the best and most economical execution of orders. Management must have the confidence of the goal maker, or else the goal maker is likely to include the reform of management as part of the dream. The goal maker must be accepted and trusted by management or management will begin to look around for a new goal maker and, being management, not a goal maker, may take up with some highly specious ideas which management might then seek to make a sub-echelon to itself (the thing which causes most nations to cave in and most companies to collapse).

There are three divisions of action, then, which are interactive and interdependent. ARC amongst these three must be very high. A group which is hated by its management (often the case in the military) often gets wiped out. A whole system may be destroyed (as in American industry) when management and the group decide to become two camps. The death of the goal maker is not destructive to a group but even sometimes aids it, but only so long as the dream itself lives and is kept living. A management, for instance, which would interpose (for the "good" of the group) between the goal maker and the group is levelling death at the group by perverting and interpreting the character of the goal. Management cannot concern itself with the overall goal or plan: it can only execute and expedite the plans of accomplishing the goal and relegate its own planning to ways and means planning, not goal planning. The traffic between the group and the goal maker should be direct and clean of all "interpretations" unless management wishes to destroy the group in which case it should, by all means, undertake an interruption of communication between the goal maker and the group. The place of the goal maker is in the market place with the group or off somewhere sitting down thinking up a new idea. The place of management is in the halls and palaces, arsenals and time-keepers cages, behind the judges' bench and in the dispatcher's tower. Management leads the charge after goals has assigned the cause of the campaign.

Management is subservient to goals but goal making is not in command of management. So long as a management realizes this it will continue in a healthy state as a management and the group, modified by natural factors such as food, clothing and general abundance, will remain in excellent condition. When management fails to realize this, the goal maker, even when he is merely an individual who enjoys the making of vast fortunes, shifts the management. When the goal maker is actually high theta and management forgets this and forgets the quality of ideas (or doesn't ever quite realize their potency) then, again and more so, management will be tumbled around, for a theta goal maker has behind him a group and in a moment can become much more group than management and easily empties out the halls and palaces. A management that discredits its goal maker or perverts the communication of goals of course dies itself, but, in dying, may also kill a group.

Management often takes the goal maker into its confidence and requests the solution to various problems. Management should understand that when it does such a thing it is not taking conference with more management,for the advice it will receive on technical problems, no matter how brilliant, is usually delivered with asperity, for the goal maker has no sight of tenuous lines of supply, quivering bank balances, raging labour leaders, leases and contracts unsigned or perilously inadequate. The goal maker sees goals, management sees obstacles to goals and ways of overcoming them. The first requisite of a goal maker is to see goals which are attainable only by the most violent ardours and which are yet sparkling and alluring enough to lead forward and onward his own interest (in the case of an EnMEST goal maker) or (if he is a theta goal maker) his entire group. Management pants between the pressure of the group to attain the goal and the clarion call of the goal maker to go forward.

Yet there are specific means by which management can lighten the burdens for itself, recover and retain its own breath and be highly successful as management, which means that the group, under that management, must be highly successful if *its goals are kept bright.*

Let us concern ourselves only with true groups. The true group could be defined as one which has (a) a theta goal, (b) an active and skilled management working only in the service of the group to accomplish the theta goal and (c) participant members who fully contribute to the group and its goals and who are contributed to by the group; and which has high ARC between goal and management, management and group, group and goal. Here we have no management problems beyond those natural problems of laying the secondary but more complex plans of

accomplishing the goals, pointing out and laying the plans for the avoidance of obstacles en route to that goal or those goals and co-ordinating the execution of such secondary, but most vitally important, plans. Management, having the agreement of the participants, is immediately relieved, by the participants, of some of the planning and, that plague of management, the tying of loose and overlooked ends. Further, management is not burdened with the actual location or cultivation of food, clothing and shelter for the group as in a welfare state, but is only concerned with co-ordinating group location and cultivation. Management is enriched by the advice of those most intimately concerned with the problems of participation and is apprised instantly of unworkabilities it may postulate. On the goal side it is relieved of the problem management has never solved, the postulation and animation of the primary goals of the group. Further, management does not have the nerve-racking task of smoothing out enturbula-tions and confusions which are the bane of every semi-group.

Now let us consider what might be meant by a true group as opposed to a pseudo-group. A true group falls away from being a true group in the gradient that ARC breaks exist between goals and management, management and group, and group and goals. In the case of a high theta goal maker and a group in agreement with those goals, a bond between group and goal maker is so copper bound, cast iron strong, whether the goal maker is alive or dead as a person, that a management out of ARC with either the goal maker or the group will perish and be replaced swiftly. But in the interim while that management still exists, the group is not a true group and is not attaining its objectives as it should. This would be the first grade down from a true group toward a pseudo-group.

The condition might obtain for some time if management were not quite a true management and not flagrantly out of ARC. The duration that such a management would last would be inversely proportional to the completeness of the ARC break. A severe perversion or break of ARC would bring about immediate management demise. A continuing slight one might find the management tolerated for a longer time.

The break with the group, while the goal maker lives, can be of greater severity than with the goal maker without causing management to collapse or be shifted. Break of ARC with a goal maker finds management under the immediate bombardment of a group catalysed, as a small, sub-goal, into the overthrow of management. For this reason most managements prefer a good, safely dead goal maker whose ideals and rationale are solidly held by the group and most groups prefer live goal makers because so long as the goal maker lives (in the case of a true group), the group has a solid champion, for a theta goal maker is mainly interested in the group and its individuals and his goals and has very little thought of management beyond its efficiency in accomplishing goals with minimal turmoil and maximum speed.

The next step down from the true group toward a pseudogroup is that point reached where the goals exist as codes after the death or cessation of activity as a goal maker of the goal maker. Management, always ready to assume emergencies exist, being hard-driven men even in the best group, breaks ARC to some slight degree with the codified goals in the name of expediency. Being interested in current problems and seeing the next hill rather than the next planet, management innocently begins a series of such breaks or perversions and begins to use various means to sell these to the group. The group may resist ordinarily but in a moment of real danger may deliver to management the right to alter or suspend some of the code. If management does not restore the break with or perversion of the code, the true group has slipped well on its road to a pseudo-group.

The next major point on the decline is that point where management is management for the sake of managing for its own good, not according to the demised goal maker's codes of goals, but preserving only some tawdry shadow of these such as "patriotism," "your king," "the American way," "every peasant his own landlord," etc., etc., etc.

The next step down is the complete break and reversal of ARC from group to management at which moment arrives the revolution, the labour strikes and other matters.

If management succeeds the overthrown management without the simultaneous appearance of a new goal maker, the old regime, despite the blood let, is only replaced by the new one, for management, despite critics, is normally sincere in its efforts to manage, and strong management, unless a good theta goal maker springs up and carries through the revolution or strike, is faced with a continuing and continual emergency which demands the most fantastic skill and address on the part of managers and, oddly enough but predictably, the strongest possible control of the group.

We are examining here, if you have not noticed, the tone scale of governments or companies or groups in general from the high theta of a near co-operative state, down through the three of a democratic republic, down through "emergency management," down through totalitarianism, down through tyranny and down, if not resurged by a new goal maker

somewhere on the route, into the apathy of a dying organization or nation.

A true group will conquer the most MEST. Not even given proportionate resources with another group, it will conquer other groups which are not quite true groups. Brilliance and skill tend naturally to rally to the standards of a true group as well as resources. As a sort of inevitable consequence, MEST will move under a true group. The amount of MEST a true group will eventually conquer—but not necessarily OWN—is directly in proportion to the amount of theta that group displays—theta being many things including solutions along the dynamics toward survival. To display theta, the group must definitely tend toward a true group.

A truly successful management is a management in a true group. It is definitely in the interest of management to have as nearly true a group as it can possibly achieve. Indeed, management can actually go looking, for a group's completion, for a goal maker, or send the group looking for a goal maker and then, the goal maker proving himself by catalysing the group's thoughts and ambitions, raise the goal maker's sphere of action as high as possible and abide thereby without further attempting to modulate or control the goals made (for management is necessarily a trifle conservative, is always liable to authoritarianism and is apt to be somewhat sticky of its power). Probably the most stupid thing a management can do is to refuse to let a group become a true group. The group, if at all alive as individuals, will seek (the third dynamic being what it is) to become a group in the true sense. A group will always have around it a goal maker. Management in Industrial America and in Russia tries to outlaw, fight and condemn goal makers. This places the group in the command, not of management, but a would-be martyr, a John L. Lewis, a Petrillo, a Townsend, and management promptly has to go authoritarian and start killing sections of the third dynamic which course leads to death not only of the management but to the business or the nation.

Likewise a group should be tremendously aware of the dullness or the real danger of putting a goal maker into management or insisting that the goal maker manage. Hitler had a battle. He probably had a lot of other battles he could have written about if one and all had recognized what goal maker there was in him and supported his goal making. Instead, current management threw him into gaol and sorted itself out as a target for national wrath (for don't think the people weren't behind Hitler, regardless of what the Nazis try to tell our military government). Down went the Republic, up went Hitler as management. Down went Germany in a bath of blood. At best he was a bad goal maker because he dealt with EnMEST, and very little theta. But he was a hideously bad manager for by becoming one he could no longer be a good goal maker but, made irascible by the confusions of management, went mad dog.

Management and enterprises are most highly successful when they attain most energetically toward true group status.

There are certain definite and precise laws by which management can raise the level of its own efficiency and the level of production and activity of a group.

When it is necessary to establish a surprise element in an attack or to secure a portion of the group from attack, suppression of OPERATIONAL DATA is permissible to management. Suppression of any other than operational data can disrupt a group and blow management over. Any management which operates as a censorship or a propaganda medium will inevitably destroy itself and injure the group. A manage-ment must not pervert affinity, communication or reality and must not interrupt it. A management fails in ratio to the amount of perversion or severance of ARC it engages upon and its plans and the goals of the group are wrong in the exact ratio it finds itself "forced" to engage upon ARC perversion or severance of ARC in terms of propaganda or internal relations.

A management can instantly improve the tone of any organization and thus its efficiency by booking up and keeping wide open all communication lines between all departments and amongst all persons of the group and communication lines between the goal maker and the group. Fail to establish and keep in open and flowing condition one communication channel and the organization will fail to just that extent.

He who holds the power of an organization is that person who holds its communication lines and who is a crossroad of the communications. Therefore, in a true group, communications and communications lines should be and are sacred. Communication lines are sacred. They have been considered so instinctively since the oldest ages of man. Messengers, heralds, and riders have been the object of the greatest care even between combatants on enMEST missions. Priesthoods hold their power through posing as or being communication relay points between gods and men. And even most governments consider cults sacred. Communication lines are sacred and who would interrupt or pervert a communication line within a group is entitled to group death—exile.

And that usually happens as a natural course of events. Communication lines must not be used as channels of viciousness and entheta. They must not be twisted or perverted. They must not be glutted with many words and little meaning. They must not be severed. They must be established wherever a communication line seems to want to exist or is needed.

The most vital lines of a group are not operational lines, although this may appear so to management. They are the theta lines between any theta and the group and the goal maker and the group. Management that tampers with these lines in any way will destroy itself. These actually have tension and explosion in them. It is as inevitable as nightfall that these lines will explode, when tampered with, at the exact point of the tampering. This is a natural law of communication lines.

A group has the right to exile anyone it discovers to be guilty of tampering with any communication line.

A management which will pervert an affinity or sever one may gain a momentary power but the laws here are the same as those relating to communication and an affinity tampered with will lower the tone of a group.

A management which will pervert or suppress a reality, no matter how "reasonable" the act seems, is acting in the direction of the destruction of a group. It is not what management thinks the group or the goal maker should know. it is what is true. A primary function of management is the discovery and publication, in the briefest form which will admit the whole force of the data, the reality of all existing circumstances, situations, and personnel. A management which will hide data, even in the hope of sparing some one's feelings, is operating toward a decline of the group.

A true group must have a management which deals in affinity, reality, and communication and any group is totally within its rights, when a full and reasonable examination discloses management in fault of perverting or cutting ARC, of exiling, or suspending that management.

Management should be cognizant of the differences existing in power. Management undeniably must have power but a management which confuses authority with power is acting, no matter its "sincerity" or "earnestness" or even conscious belief that it is doing what is right and well, in the direction of decay of organizational efficiency. Power which is held and used by rationale alone is almost imperishable. That power deteriorates and becomes ineffective in exact ratio to the amount of pain or punishment drive it must use to accomplish its end.

The theta of management becomes entheta in a dwindling spiral once this course is entered upon. For example, the punishment of criminals creates more criminals. The use of punishment drive on the insane creates more insane. Punishment drive against inefficiency creates more inefficiency and no management wisdom or power under the sun can reverse or interrupt this working law. Every management of past ages has been an enturbulated group rule seeking to rule an en-turbulated group. Management has only succeeded when punishment drive was suspended or when theta moved in over the scene from a goal maker and by sheer theta power, dis-enturbulated the group.

The need of management is for power to advance secondary and vital plans and co-ordinate their execution by the group. The only power that ever works is derived from reason and the ability to reason. MEST surrenders only to reason when it is to become organized MEST. Punishment drive creates en-MEST where MEST was sought. It is the boasted desire of every management to acquire MEST for the group. By employing punishment drive on the group or on MEST a management can acquire only entheta control of enMEST and that is death. Management, if enough free theta exists in the group or if the goal is sufficiently theta, gets away with punishment drive and can confuse the punishment drive it is applying with the existing theta in the group and can delude itself into thinking that accomplishments occur because of punishment drive, not because of existing theta. Thus enthused about punishment drive, management then applies more of it with the result that the existing theta is enturbulated. Sooner or later the group perishes or, fortunate group, saves itself with a revolt which carries a theta goal. (Example, British Navy, bad conditions of discipline before first quarter of nineteenth century; mutiny of whole Navy for humanitarian handling of men; result, a more efficient Navy than British had ever had before.)

Power, and very real, forceful power it is, can be sustained only when it deals with theta goals and is derived from theta principles. Authoritarian power, held by breaking or perverting ARC, enforced by punishment drive, brings to management certain destruction and brings to the group reduced efficiency or death. One, in considering these things, is not dealing in airy philosophic impracticalities but in facts so hard and solid they can be worn and eaten and used as roofs. We are dealing here with the basic stuff of management and group survival. It is to be commented upon that management has succeeded despite its use of punishment drive and because of existing theta goals whether management knew it or not. This sums up not particularly to the

discredit of managements of the past but to the highly resistant character of theta goals. Management, failing to understand the true force of its power and the source of that power, seeing only that if it cut and perverted ARC it had power of a sort, has been the yoke around the neck of Mankind in most instances, not the proud thing management thinks it is or could be, keeping the wheels turning. Where wheels turned in the past it was usually because of highly vital theta goals and thoroughly despite management.

Management, being a needful cog in the scheme of things, has been kept around by a hopeful Mankind on the off-chance that it some day might be of complete use. A punishment drive management is the spoke in the wheel of an action being conducted by a goal maker and a group, not the grease for the wheel which management sincerely believes itself to be.

Management derives power most swiftly by acting as interpreter between a goal maker and a group. The power of the management is effective in ratio to the cleanness with which it relays between the goal maker and the group on ARC. Management loses real power in the ratio that it perverts or cuts lines between the goal maker and the group. When the goal maker exists now only as a printed code, management can continue to prosper and can continue to serve only in the ratio that it keeps that code cleanly interpreted between archives and group. Management deteriorates and grows unprosperous in the ratio that it perverts or cuts the lines from code to group.

There is an intriguing factor involved, however, in ARC lines. When they are slightly interrupted they deliver power

an unnecessary arbitrary, existing because of the existing arbitrary of management operating on an authoritarian level, marking the absence of theta goal makers and seeking to enforce that lack with punishment drive.

Economic tyranny alone could make possible the far less than ideal group ideology of Communism. Where fascistic business management exists, there socialism and Communism can grow. The world is in tumult today because of three schools of management: fascism reserves the right to use the whip, and devil take the men of production; socialism outlaws private property and builds up staggering bureaucracies about as efficient as Rube Goldberg's machinery: Communism buffoons around with one-time high ethic tenets, building an empire on deceits. None of the three are worthy of attention should a workable science of management come into being.

to the individual that interrupts them. True, it is authoritarian power, death power. But a very faint tampering with a line gives authority to the tamperer since he is obscuring to some slight degree a section of theta. His group is trying to see the theta and reach it and if they can do so only through the tamperer and if they are convinced that the tamperer or tampering is necessary (which it NEVER is), which action is part of tampering with such lines, then the group tolerates the tamperer in the hope of seeing more theta. Mistaking this regard for him as something he is receiving personally, the tamperer cannot resist, if he is a narrow and stupid man, tampering a little more with the ARC line. He can live and is tolerated only so long as the theta he is partly masking is not entirely obscured. But he, by that first tampering, starts on the dwindling spiral. Eventually he is so "reactive" that he obscures the theta or discredits it. At that moment he dies. He has put so much tension on the line that it explodes.

There is also a pretence of having a theta goal without having one which intrigues management. Lacking the actual article, the management postulates merely the fact that such an article exists and that management is the sole purveyor of this theta goal. Usually such a management makes excuses for the goal not being in sight or existing by claiming that "it is too complicated for ignorant minds to grasp." "It is too sacred to be defiled by the hands of the mob." Management dresses itself in all the trappings of a theta relay station, but as there is no theta goal in the first place to give to the group, punishment drive has to be entered upon instantly. Hellfire has to be promised to those who won't believe a theta goal exists just over management's shoulder. A flog has to be used to convince the group that the cause is just.

However, a group is capable of generating some theta on its own. There are always some minor goal makers around. Unfortunately these serve to buoy up a masking management by actually putting some theta into circulation. Management can then keep on masking an empty altar. But as the altar is empty such a management is always afraid instinctively. It starts to speak of rabble, the mob. the horrors of individual say in group actions. It speaks of anarchy and uses wild propaganda to stampede and enturbulate its group. The life goes, to some degree, down in every individual in that group and stays up only because of the minor goal makers in the group. Management, seeing here a rival or a threat of discovery that it exists not for the goal but for itself, starts in punishment driving the minor theta makers, calling them revolutionaries whenever they advance a goal or idea and having them torn down from any tiny eminence to which their meagre supply of theta has lifted them. When the last of these goal makers is dead, the group

is dead, management is dead and desolation reigns. THIS HAS BEEN THE CYCLE OF MANAGEMENT AMONGST MAN SINCE FIRST HE BECAME CIVILIZED save in those times and places where a real goal maker existed and where management actually began by being a part of a nearly true group. (See the history of Greece, the history of Egypt, the history of Rome, trace the course of Greek tyrannies. See also the history of various companies and one readily sorts out those which began because of a goal maker and those which pretended a goal existed but had no goal maker for the group but only made goals for individuals—management itself. Three life insurance companies began because of real goal makers and they are the leading companies of America despite subsequent perversions of the goal and its subordination to individual profit.)

Now it so happens that a culture which has within it many examples of punishment drive masked management will begin to develop a spurious technology of management based upon mimicry of these masked punishment drive managements. The technology is most ably put forward in Niccolo Machia-velli's "The Prince." Almost any text on "military science" is a technology of masked management. However, such texts exist and are useful because they furnish a short term method of assembling a unit to follow a cause whenever one appears.

The technology of how a company evolves or a battery spots is not the technology of management but the technology of a co-ordinated group. Everywhere one looks in such a text on actual battle skill one finds co-operation and understanding is the essence and that ARC is stressed amongst the group itself at every period and paragraph. But alas, the technology of the military management itself is so far from useful or factual that wars get won only because most armies have the same management system and that one wins which makes less errors than another and which has a better "cause." Example, the Communist main group in Russia is not a true group. Probably the United States is much closer to (but very far from) a true group. Thus the nation of Russia vs. the nation of the U.S. in a battle of culture would lose miserably. But an army of Communists, working for a management which only recently lost its goal makers, Marx and Lenin, can have a "cause" couched in modern terms.

All armies are considerably entheta and take only enMEST. But a Russian army has a "cause" superior to a U.S. army. Neither army has a true group cause, but the U.S. "cause" has not been restated in convincing modem terms. A second rate and obsolete "cause" is as dangerous to have around an army as an obsolete weapon. The U.S. army "cause" does not include a conquest of MEST clause but contains only protection of status quo clauses. Once the U.S. drove hard on theta goals. Because her people and culture are not much decayed and her technology is high, a U.S. with a CAUSE as before, could easily outreach any Russian culture. And a U.S. army with such a CAUSE would crush a vastly superior Russian force.

Armies, understand, are short term groups intimately concerned with the conquest of MEST which, no matter if they made enMEST of it, is still a MEST goal until conquered. Thus armies can be thrown into action with far less reason than a culture can be catalysed. An army builds its technology on fantastically high ARC on the enlisted level and is governed by a fantastically low ARC on the officer level.

With such bad examples in a culture, management can develop an entirely false technology, managers have to be geniuses to work with such technologies and ordinarily work themselves into a swift demise as witness the presidents of the U.S. who can be seen, if you compare the pictures of the same president after just two years of being president, to deteriorate swiftly. The group one way or another will try to knock apart an authoritarian management or a management even slightly authoritarian. The management thinks this is all because of bad

planning, tries to plan better, and thinks all can be righted by just a little more emergency punishment drive. The group revolts more. Management punishment drives more. And finally something has to explode. It is a lucky nation which blows into a theta goal revolt early in this cycle. The government of the United States is overworked and inefficient as management because all the principles of its original goal makers are not applied, and those that are applied are slightly perverted.

Bad management, then, like any aberration, goes by contagion. Because of a native existence of theta goals, even as to common survival, and a country wealthy in brilliant people and natural resources, management can become a sort of priesthood because success reigns and management never has been loath to take credit for a group's production. But statistics will tell you swiftly that the great god "modern business management" is in continual trouble, is expensive, is uneconomical and that, by the duration of large fortunes and businesses on the average, such management as has been purporting to be management, is almost a complete failure and is murdering outright the majority of enterprises of this country for one. The rise of unionism is not an index of the viciousness and wilfulness of Man but is, as it rises and wars against production, an index of the failure of management as it has been practised as a technology. Unionism is not wrong. It is simply

SECTION TWELVE THE CREDO OF A GOOD AND SKILLED MANAGER

To be effective and successful, a manager must:

Understand as fully as possible the goals and aims of the group he manages. He must be able to see and embrace the ideal attainment of the goal as envisioned by a goal maker. He must be able to tolerate and better the practical attainments and advances of which his group and its members may be capable. He must strive to narrow, always, the ever existing gulf between the ideal and the practical.

He must realize that a primary mission is the full and honest interpretation by himself of the ideal and ethic and their goals and aims to his subordinates and the group itself. He must lead creatively and persuasively toward these goals his subordinates, the group itself, and the individuals of the group.

He must embrace the organization and act solely for the entire organization and never form or favour cliques. His judgment of individuals of the group should be solely in the light of their worth to the entire group.

He must never falter in sacrificing individuals to the good of the group both in planning and execution and in his justice.

He must protect all established communication lines and complement them where necessary.

He must protect all affinity in his charge and have himself an affinity for the group itself. He must attain always to the highest creative reality. His planning must accomplish, in the light of goals and aims, the activity of the entire group. He must never let organizations grow and sprawl but, learning by pilots, must keep organizational planning fresh and flexible. He must recognize in himself the rationale of the group and receive and evaluate the data out of which he makes his solutions with the highest attention to the truth of that data.

He must constitute himself on the orders of service to the group.

He must permit himself to be served well as to his individual requirements, practising an economy of his own efforts and enjoying certain comforts to the wealth of keeping high his rationale.

He should require of his subordinates that they relay into their own

spheres of management the whole and entire of his true feelings and the reasons for his decisions as clearly as they can be relayed and expanded and interpreted only for the greater understanding of the individuals governed by those subordinates.

He must never permit himself to pervert or mask any portion of the ideal and ethic on which the group operates, nor must he permit the ideal and ethic to grow old and outmoded and unworkable. He must never permit his planning to be perverted or censored by subordinates. He must never permit the ideal and ethic of the group's individual members to deteriorate, using always reason to interrupt such a deterioration.

He must have faith in the goals, faith in himself, and faith in the group.

He must lead by demonstrating always creative and constructive sub-goals. He must not drive by threat or fear.

He must realize that every individual in the group is engaged in some degree in the managing of other men, life, and MEST and that a liberty of management within this code should be allowed to every such sub-manager.

Thus conducting himself a manager can win empire for his group whatever that empire may be.

GLOSSARY

ACK (Noun) The acknowledged yellow copy of a communication. (Verb) To acknowledge. To stamp "Ack" and initial.

ACTAD The action addressee, the person to whom the communication goes for action.

A-R-C* Mathematical symbol for the component parts of theta (thought). These parts are affinity ("love"), reality (agreement), and communication. Unless two persons feel some friendship for each other, they cannot agree on anything. Unless they are friendly, they do not want to communicate. Unless they agree, they will not be very friendly. Unless they agree, they will not accept each other's communications. Unless they communicate, they cannot agree. Unless they communicate, they cannot keep up their friendship. A-R-C is merely a symbol for this interrelationship in human affairs. High A-R-C is friendship, agreement, and communication. Low A-R-C is hatred, contradiction, and secrecy or lying.

AUTHORITARIAN (Noun) A person who gives orders without reasons. A person who arbitrarily tries to think for others instead of letting them think for themselves.

* All starred subjects are fully treated and may be further studied in SCIENCE OF SURVIVAL, by L. Ron Hubbard.

BLUE (Noun) The corncentre copy of a communication.

CLEARING An operation whereby a badly cluttered communication channel may be swept clean. Sometimes an emergency exists which requires an enormous traffic volume and this has communicators slaving all up and down the lines. When a line or number of lines are to be cleared of an emergency situation which has ceased to exist, the chief communicator is informed by the deciding executive and all messages appertaining to the past situation are swept back to files whether they have been acknowledged or completed or not.

COM-CENTRE — The central communications office, of which there can be only one in any given communications system.

COMLINE — A communications line. This does not refer to physical equipment but to the passage of ideas between two points. A flow of ideas, in two directions, on paper, establishes a comline. A verbal exchange of ideas can be considered a comline only when the discussion is summarized on paper and then sent over the line as a confirmation.

COMMUNI-CATOR — One who operates a post or corncentre.

COMP — (Noun) The completed white copy of a message. (Verb) To complete. To stamp "Comp" and initial.

COMSTA-TION — A communications station. A physical arrangement, in boxes, slots, wires, etc., of positions for communications. There is a comstation for every terman and terminal. (See "post," "terman," "position.")

CONFONE — A communication which is put through as a confirmation of a telephone conversation. Without a confone, a telephone conversation cannot get into the system and must be considered never to have happened.

COVERT — (Adj.) Secretive, underhanded.

DAAD — (Noun) "Data addressee." The DAAD is a fast but non-tabulated method of gaining data from another station. A DAAD leaves no copy in the hands of the ORIG or the chief communicator and should come back quickly as demanded information means that a maybe has to be resolved in order to resolve other problems. Thus a DAAD is traditionally fast, but has the frailty of not leaving tracks. A DAAD, returned, is sent to file.

DYNAMICS* — Divisions of the broad human survival urge, such as (1) self, (2) children, (3) group, (4) mankind.

EnMEST* — Property, energy, or space which has been rendered less useful by poor thinking. Time which is wasted. (See "MEST.")

ENTHETA* — Irrational or confused or destructive thought, enturbulated thought. (See "theta.")

FILE — The position in a comstation taken by a communication which is ready to go to the com-centre for filing.

GREEN — (Noun) The originator's copy of a communication.

GROUP — A group is not just a number of people, it is a number of people with a shared ideal, ethic and rationale. It is an entity. Individual members of a group may come and go, and hundreds of years may pass, but the group may still be the "same" group. As it has grown older, its component parts have been replaced, like the cells in a body. The memory of a group is not equal to the memories of the individuals in the group. It may be greater or less than these, depending on whether or not there has been good communication and filing in the group. Any group which depends wholly upon the memories of individuals and has no common recorded memory has no real memory of its own and is insane as a group, though the individuals in it may be quite rational.

INCOME — The position in a station taken by an arriving communication.

INFAD — (Noun) The information addressee. Also, a

communication going to an information addressee. (Verb) To send an infad to.

MAIL The communications post where comstations SECTION are operated for the world at large and for various organizations and individuals in the world at large. The world is considered merely another remote terminal.

MESSAGE The date line of a message—its identifying FORM mark.

MEST * Mathematical symbol for Matter, Energy, Space, and Time. Loosely, property and possessions.

MUSACK The position in a comstation which is taken by a communication that originated at another station and must be acknowledged by this station.

MUSCOMP The position in a comstation taken by a communication originating elsewhere which has been acknowledged by this station but must still be completed by this station.

NUDGE A slip which asks about the progress of a communication. Corncentre sends a nudge to the actad when he fails to acknowledge a message or to complete it in the estimated time. The first nudge is pink, the second red. The com-centre copy of the nudge is attached to the blue. (See "blue.")

ORIG (Noun) The originator of a communication.

OUTGO The position in a comstation taken by a communication which is going out from this station.

POSITION A section of a comstation. A slot or box or other receptacle for a communication. There are seven positions in every comstation: INCOME, OUTGO, UNACK, UNCOMP, MUSACK, MUSCOMP, and FILE.

POST A place where there is a communicator running one or more comstations.

REACTIVE* Irrational, reacting instead of acting.

SCIENTO- The science of knowledge. (See other works LOGY of L. Ron Hubbard.)

TERCOM A terman who is acting as his own communicator.

TERMAN An individual who is served by a comstation. The man or woman at the end of a comline.

TERMOTE A terman who is remote from his comstation and who is in touch with it by telephone, radio, or duplicate, but who does not handle or see the original white. (See "white.")

TEROV Similar in function to a remote terman, but moving around.

TERMINAL A group or section which is served by a comstation. Some individuals will not have stations of their own but will be served by the station of their group. Terminals can also be remote or roving.

THETA * Mathematical symbol for thought, reason.

TONE The gradient scale of rationality and well-SCALE* being.

UNACK The position in a comstation taken by a communication which has originated at this station and which has not yet been acknowledged by the actad.

UNCOMP The position in a comstation taken by a communication which was originated at this station and has been acknowledged by the actad but has not yet been completed by the actad.

WHITE (Noun) The completion copy of a communication. The

actad's copy.

YELLOW (Noun) The acknowledgment copy of a communication.

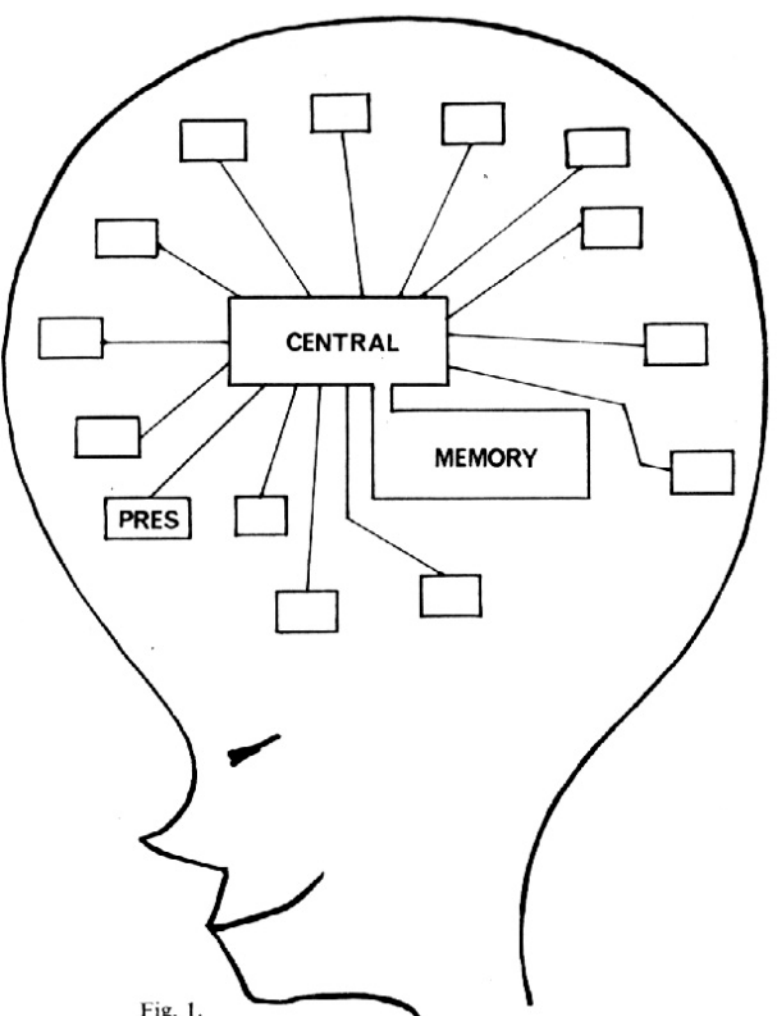

Fig. 1.

	OUT
	MUST COMPLETE
	MUST ACKNOWLEDGE
	IN

PAINTER
ACTAD

CENTRAL OFFICE

	OUT GO
TO FILE	MUST BE COMPLETED
WAIT FOR FILE	
	MUST BE ACKNOWLEDGED
	IN COME

JONES
ORIG.

To Filing	OUT
Uncomplete	
Un-acknowledged	
	IN

Fig. 2.

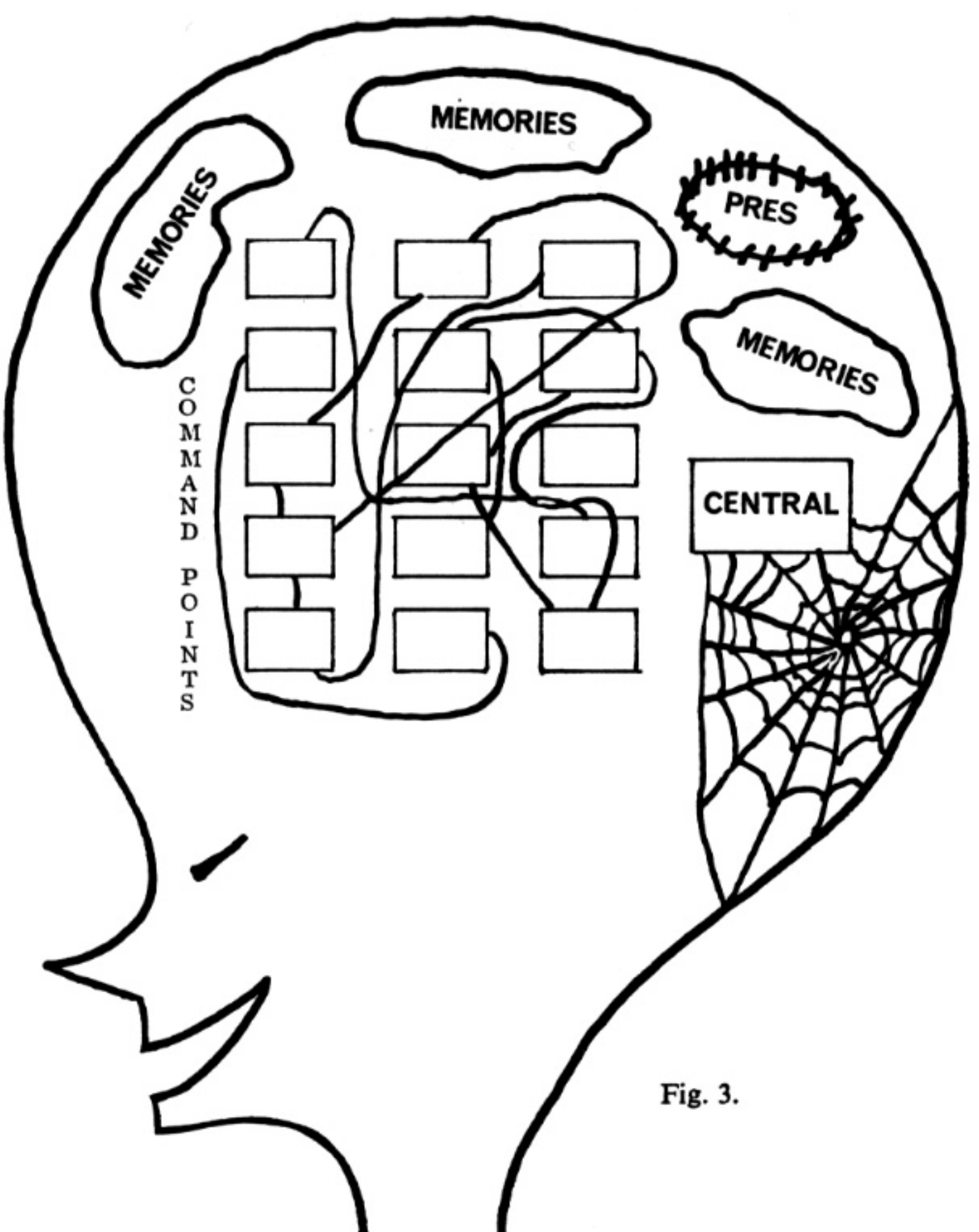

Fig. 3.

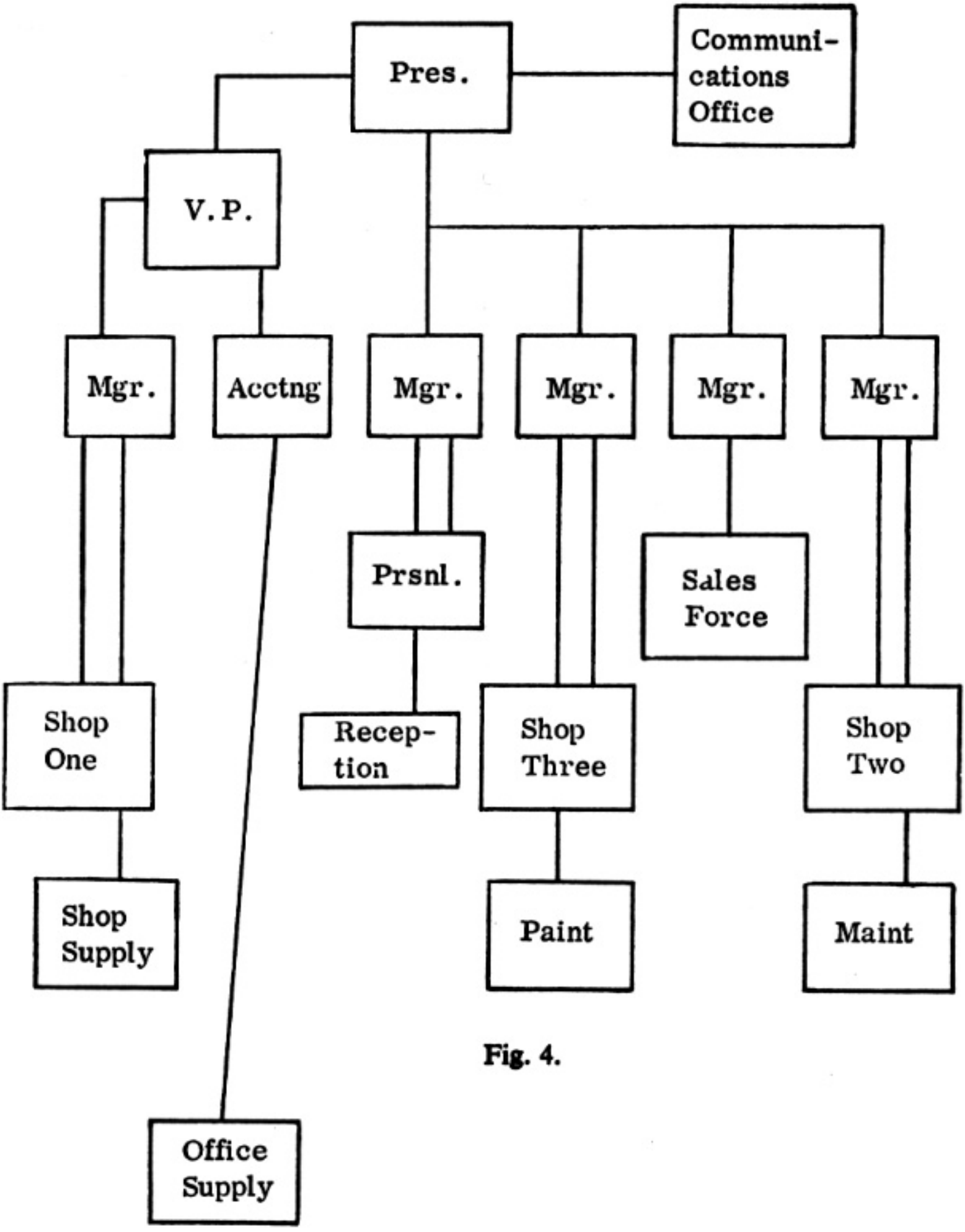
Pres.
Communi-
cations
Office
V.P.
Mgr.
Acctng
Mgr.
Mgr.
Mgr.
Mgr.
Prsnl.
Sales
Force
Shop
One
Recep-
tion
Shop
Three
Shop
Two
Shop
Supply
Paint
Maint
Office
Supply

Fig. 4.

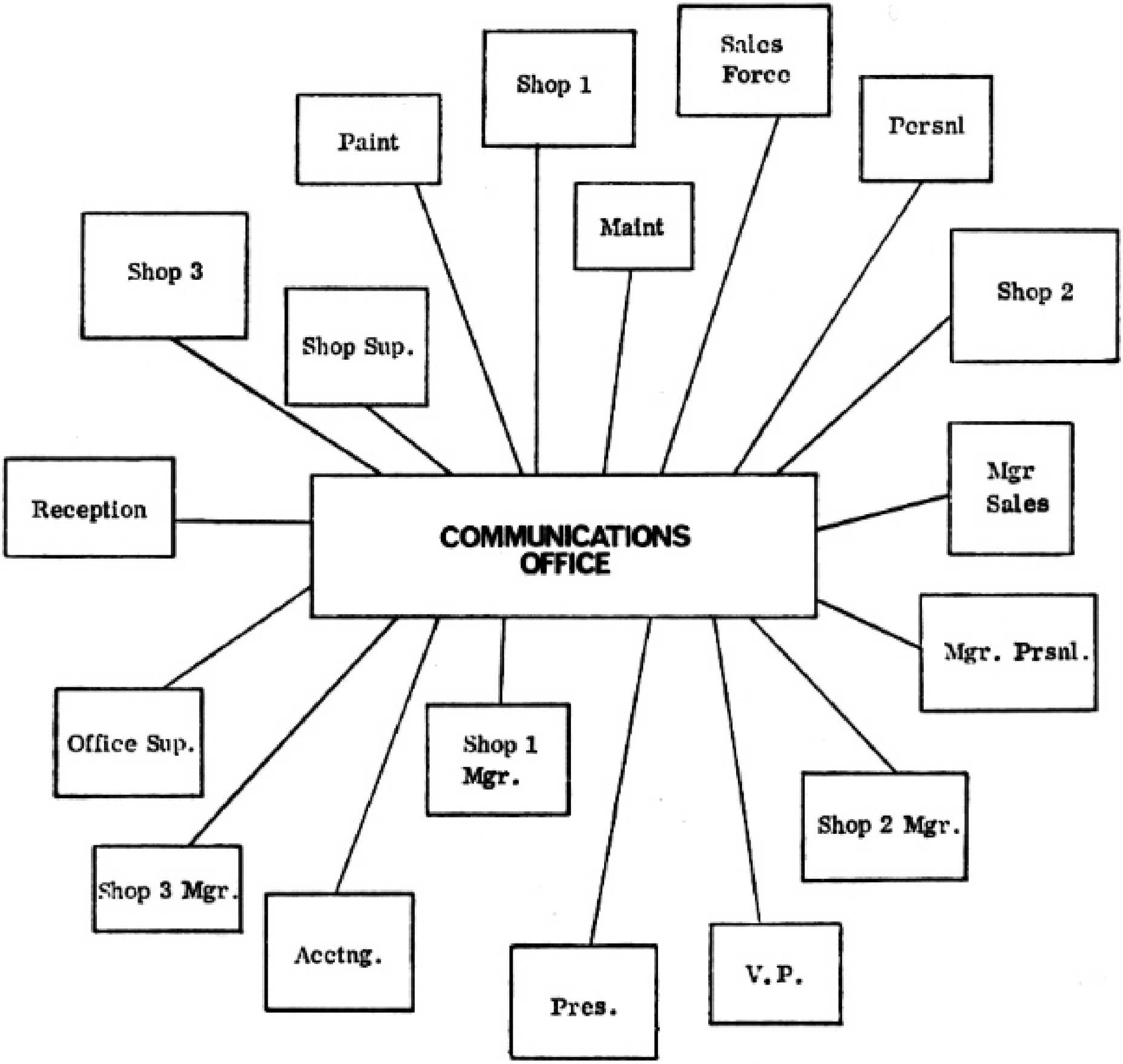
Shop 1
Sales Force
Paint
Persnl
Maint
Shop 3
Shop 2
Shop Sup.
Reception
COMMUNICATIONS OFFICE
Mgr Sales
Mgr. Prsnl.
Office Sup.
Shop 1 Mgr.
Shop 2 Mgr.
Shop 3 Mgr.
Acctng.
Pres.
V.P.

Fig. 5.

FILE (Outgoing, to Comm. Office, for filing)	OUTGO
UNCOMP (An action originated here, which has not yet been completed by actad.)	MUSCOMP (An action which must be completed by this office or person)
UNACK (An action originated here, which has not yet been acknowledged by actad.)	MUSACK (A communication which must be acknowledged by this office or person)
	INCOME

Fig. 6.

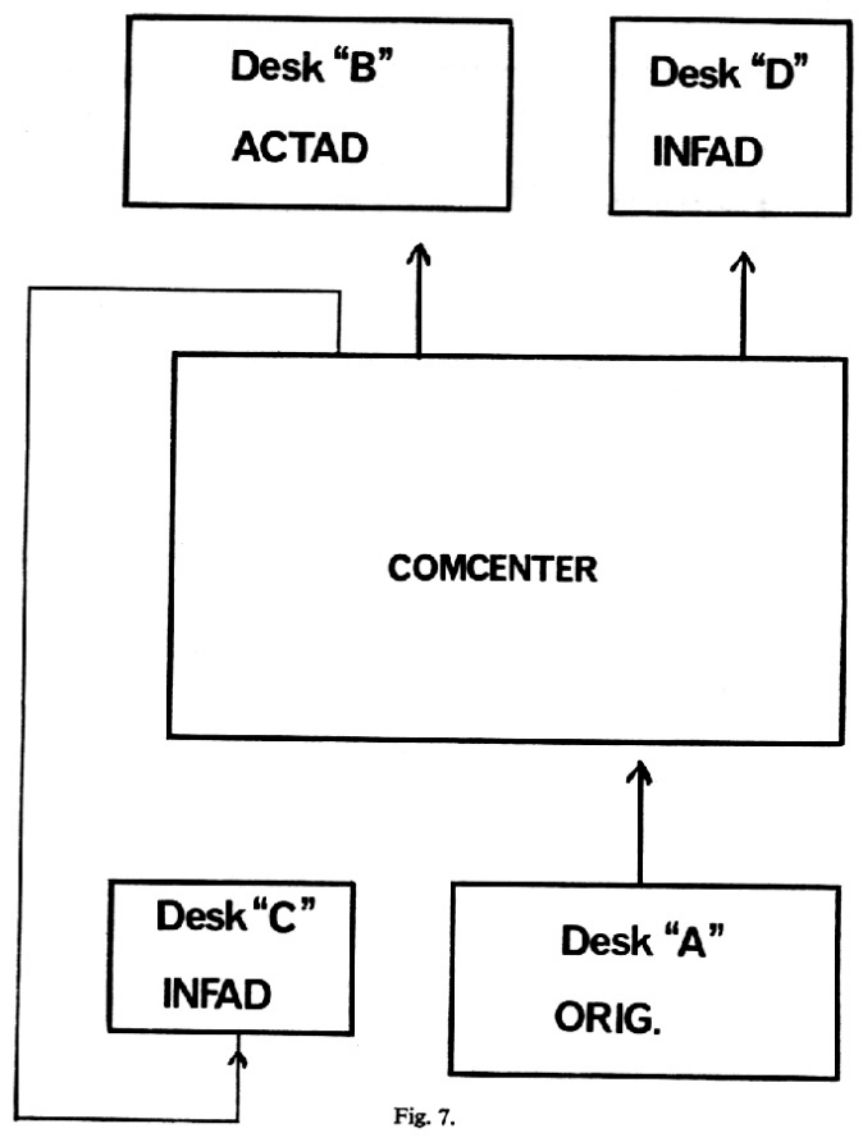

Fig. 7.

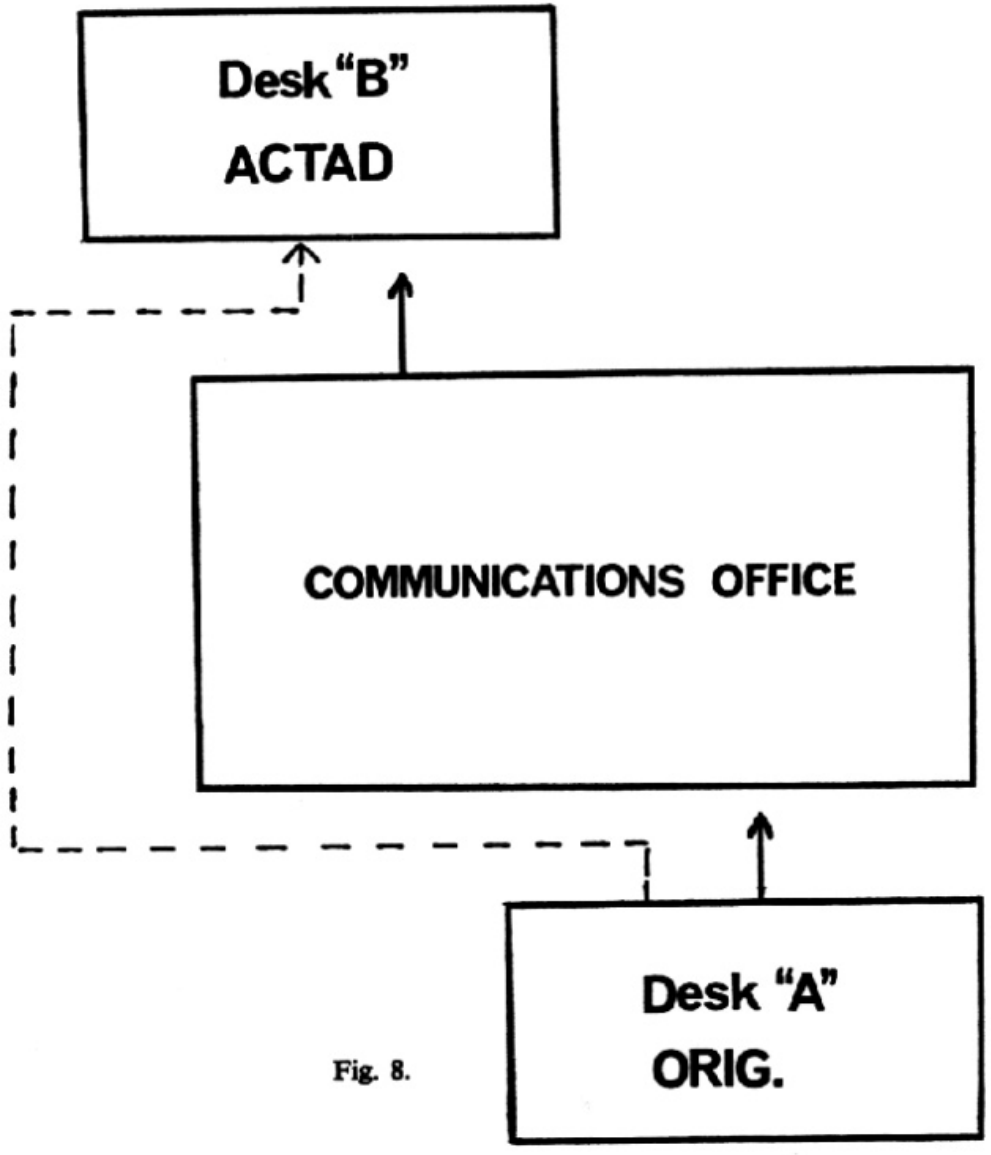

Fig. 8.

1030A 12 May/Jones Actad Smith Infad: Brown
Charles
Zyff
Acctng

A NEW PANE OF GLASS is needed in my office door.

There is a large crack in the present one. Visitors are poorly impressed by this.

10:40A 12 May 52
4:51P 13 May 52

04-15P
13 May 52
COMP
J. Smith

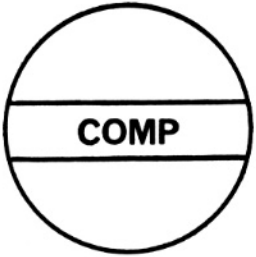

Fig. 10.

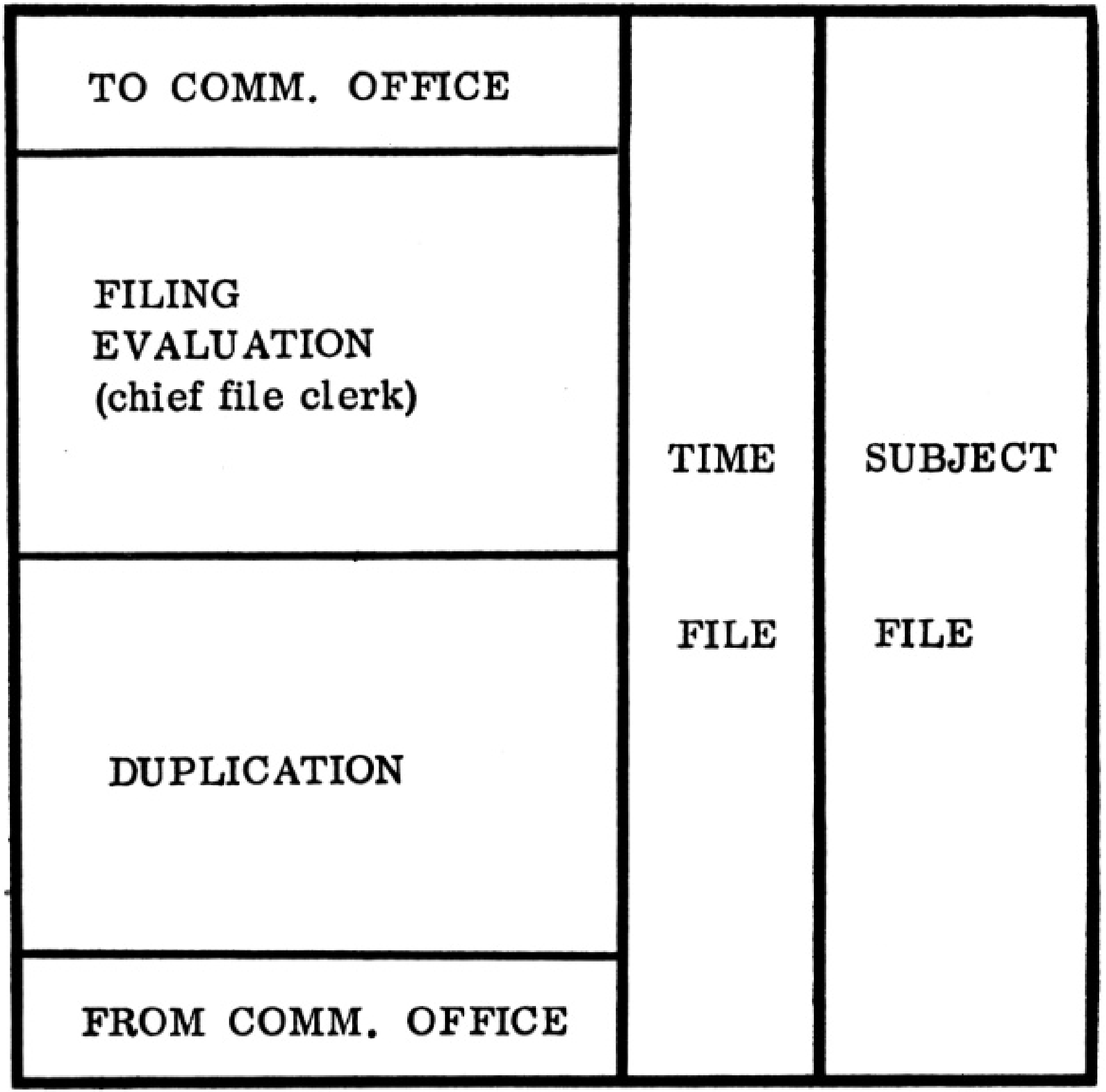
TO COMM. OFFICE
FILING
EVALUATION
(chief file clerk)
DUPLICATION
FROM COMM. OFFICE
TIME
FILE
SUBJECT
FILE

Fig. 11.

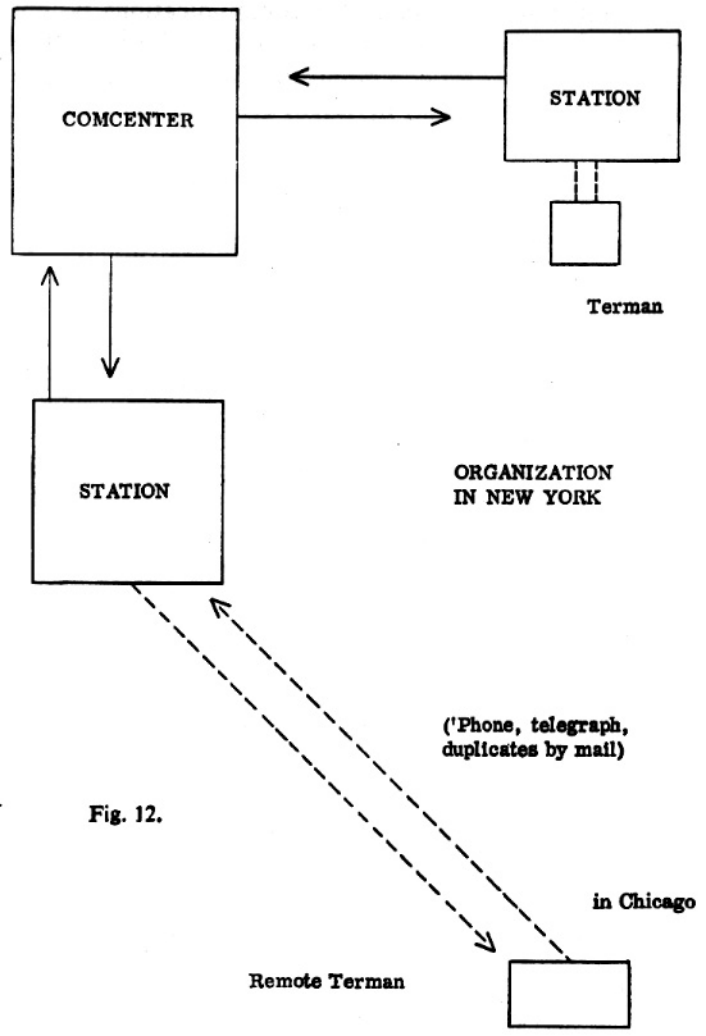
COMCENTER
STATION
Terman
STATION
ORGANIZATION
IN NEW YORK
('Phone, telegraph,
duplicates by mail)
in Chicago
Remote Terman

Fig. 12.

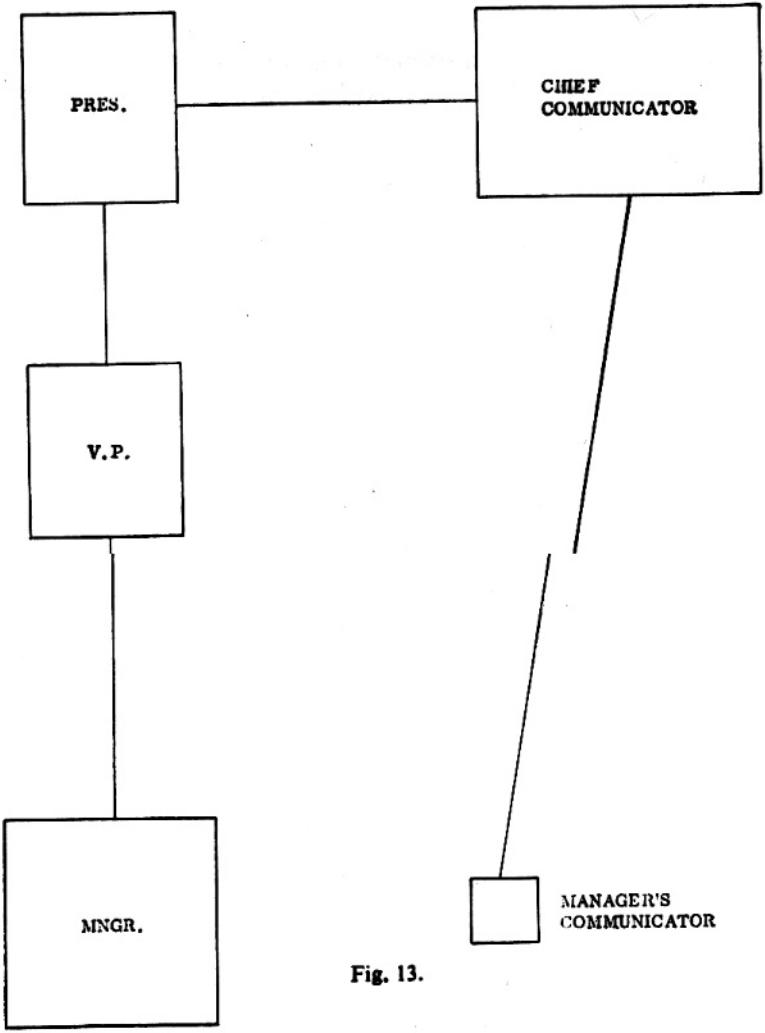

Fig. 13.