The selection of industrial salesmen

Dunigan, Francis Joseph

Boston University

http://hdl.handle.net/2144/16626

Boston University
BOSTON UNIVERSITY

College of Business Administration

THESIS

The Selection of Industrial Salesmen

by

Francis Joseph Dunigan
(B.S. in Industrial Engineering Lehigh University 1947)

submitted in partial fulfillment of the requirements
for the degree of

MASTER OF BUSINESS ADMINISTRATION
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Foreword

Today, the problem of sales personnel selection is fairly well defined, but the ultimate solution remains considerably more obscure. Impartial investigators, as distinguished from a number of industrial consultants, are considerably less sanguine in their hopes for a speedy, effective, and foolproof "yardstick" of sales ability, or, for that matter, in the existence of "sales ability" as a unique human trait. The complexity of the problem is amply pointed out in this quotation by Shartle *(1).

"We have studied something like 20,000 occupations, and we find that the difficulty encountered in devising improved selection techniques for sales work is probably not equalled in any other group of occupations."

The main difficulty in selecting men for sales work, as well as for many other types of work, lies in the fact that experiments in the social sciences cannot be objectively controlled. Because of the complex and numerous variables, one given set of circumstances can seldom, if ever, be duplicated. In the field of selling, each job is different and requires various human capacities. The initial problem in devising a selection plan is to try and decide what attributes and abilities are necessary, and then, how to measure them.

The general criticism of industry sales selection methods today is that selection of most types of management-level employees is done in much the same way. The differences among occupational selection systems may be found in the personnel who administer the programs, and in the infrequent use of psychological tests with very unknown limits.

Quite naturally, sales management personnel predominate in the administration of sales personnel selection programs. The systems, unfortunately, are severely limited by the skill and experience of individual

administrators and the scarcity of available knowledge with which to work. This dearth of precedent and knowledge is not limited to the selling field, but appears throughout the world wherever the "human equation" must be solved.

The cold facts involved in the selection of salesmen are; there is no objective way to pre-determine whether:

1. a man can sell a specific product line;
2. a man can work harmoniously with other members of the organization;
3. a salesman will like his job, the company, and working conditions.

These factors can only be estimated, and with contemporary knowledge of personnel selection, the student of personnel selection can only hope that by utilizing the various selection tools, he can come close to valid conclusions.

As further evidence of the lack of specialization in the personnel field with regard to sales, it is found that the major tools used in the selection of sales personnel also are used in many other fields. According to an overwhelming percentage of writers in the sales selection field (and further substantiated by E. A. Cleveland in a summary of sales personnel research from 1935 to 1945 *(1)*), emphasis is being placed upon: (1) standardized and evaluated application blanks; (2) "diagnostic" or "patterned" interviews; and (3) standardized tests and inventories. As yet, there is no concerted agreement as to which of these approaches are most valuable.

The two company selection systems chosen for study in this thesis are that of the Armstrong Cork Company, Lancaster, Pennsylvania and the Apparatus Department of the General Electric Company, Schenectady, New York. Both of these selection systems leave much to be desired. However, this thesis is written within the premise that there are severe limitations upon

the knowledge available to industry as a whole concerning the definition, discovery, and measurement of sales abilities. Therefore, the two selection programs are criticized with regard to the prevailing state of infancy in sales personnel research. That there is much room for improvement in this field can be easily learned by a small amount of reading of publications concerning the subject.

Both of these companies use most of the recognized tools of sales selection. The Armstrong Cork Company is one of the companies included in an estimated 90% who do not use psychological tests. Neither company uses a formal job analysis, although selection is centralized with a group of men, in each case, who have considerable experience and familiarity with the characteristics of the selling job. For this reason, all candidates are selected according to the job specifications as understood — be they right or wrong — by a small group involved in administration of the selection program.

Since the discovery of specific sales aptitudes is so difficult (statistical validation seems to be the closest approach), and since these traits, once "decided", can lead to very erroneous answers, much of the strength of selection programs apparently is accounted for by other factors. Although good selection depends upon understanding and administrative talent in handling selection tools, the coordination and combination of these methods is very important. The sequence and timing of the steps in the program, and the quantity and type of men presented for exposure to selection methods may decide whether or not a successful sales force is obtained. In the latter respects, both of the companies included in this study are outstanding. Their recruiting programs and "adjustment" training are extensive, and the results obtained have evidently justified the expenditure of large sums of money for their maintenance. It must be realized, of course, that many other factors such as working conditions, reputation of the company, financial status, sales
promotion other than selling, and compensation arrangements have decided effect upon rate of sales personnel turnover and marketing efficiency of a company. Therefore, it is difficult to isolate a sales selection program from these other influences in determining its efficacy. However, although no actual figures were available, both of these companies state that their sales personnel turnover is low, and can be attributed to a considerable degree to their selection programs. It is not thought by the author that these methods can be adopted in entirety by small firms because of the expense involved. Neither, is there any claim that a yardstick to measure the "real salesman" has been found. Instead, the two systems are presented as belonging to two companies which are generally regarded as doing an efficient job in the production and marketing of their products -- a job in which industrial salesmen are actively participating.
I. The Importance and Background of the Selection of Salesmen

At the head of a list of contemporary sales problems compiled by eighty-five sales managers in a wide variety of business was the question, "How can I find men who can and will sell?" *(1) Forty-eight per cent of these sales managers mentioned as their main problem the securing of the right man or the training of their salesmen. Of all the phases of sales management, why should the acquiring of good salesmen be so important?

The importance of good selling lies in the fact that nothing happens in business until a sale is made. There is no outlet for production until customers are available. There is no need for transportation, accounting, finance, or statistics until a sale is made. *(2) It is natural to say in rebuttal, "Well, what you say has always been true. Why get so excited about it now?" No doubt, salesmanship always has been necessary; but until comparatively recently it has been allowed to "grow like Topsy", while other phases of our industrial life have received prime attention.

Today, however, the pendulum of interest and development is beginning to swing in the direction of distribution. The exchange of goods directly from the producer to the consumer without the aid of functional middlemen has all but disappeared, and instead, distribution has become extremely complex. The number of people participating in the activities of distribution has increased, and the variety of vocations and services necessary to reach today's consumer have grown. With the addition of wholesalers and retailers, the marketing process

*(1) Cy Norton, Printers Ink, July 19, 1940.
becomes less and less simple. Whether stemming entirely from the public interest or not, government influence on the distribution of goods through price controls, anti-monopoly legislation, inter-commerce regulations, unfair trade practice definitions, and in countless other forms is becoming increasingly evident. Total purchasing power has been on the increase (although there seem to be signs that it is beginning to reach a plateau), especially in the low income brackets which has opened a new market with its own peculiar characteristics. There will be a need for more distribution outlets of all kinds, and correspondingly, more salesmen than ever before will be needed. The readjustment in the flow of national income to the lower income brackets (although raising the standard of living of the recipients) will make competition for the consumer's dollar above the level of the basic necessities much keener. There will be fewer expenditures for luxury specialties and more demand for the products of large scale industrial production. Increased competition will be found in the new enterprises which are endeavoring to secure a part of the increased demand.

The job of the salesman is going to be tougher and more important than it has ever been in the past. The market will be larger and the problems of distributing to this vast market will be great. More of the national income will be expended for distribution and distribution services, resulting in a "compounding" of competition as more persons strive for a share of the increased expenditure. As the market becomes saturated we will see the return of the selective buyer, who wants to be sold instead of being simply "allowed" to buy.

These increased distribution problems brought on by increased production can enable the salesmen to augment the services which he already performs. The salesman must create demand for new and old products by showing the customer how the particular product or service will be of benefit to him. Jobs can be created by the demand cultivated by good
salesmen. Salesmanship is also constructive in that it contributes to a higher standard of living by helping to reduce distribution costs and satisfy consumer needs and desires. In industrial selling, especially, salesmen are helping the manufacturers in the solution of their factory problems. This assistance, which is often technical, helps to increase efficiency, increase production, and lower costs. *(1) Indeed, the capacity to perform these functions will be largely responsible for a company's success. It is probably true that the next quarter century will find the leading corporations to be those that are most skillful in their sales divisions. *(2) Although the pressure for increased distributive efficiency will not be of the life or death variety, the manpower problems of salesmanship would seem to be as equally challenging as were the problems of production during World War II.

As was indicated in a previous paragraph, one of the major problems of salesmanship is the selection of capable salesmen. There are two possible methods of building a sales force. *(3) One is to hire almost every individual who applies for a job, send him out into the field, preferably on a commission basis, and leave him to sink or swim. By a process of "survival of the fittest" the failures are eliminated and the survivors, who have succeeded against heavy odds, are retained. But it shouldn't be difficult for the average person to understand the costs of such a procedure. Consider, for instance, the results of a recent survey concerning the success of selection procedures utilized by companies recruiting college graduates. *(4) The report states that 42% *(90) of

*(1) G. H. Armstrong, Development of Salesmen in the International Business Machines Corporation, American Management Association Industrial Marketing Series No. 10.
college trainees studied proved unsatisfactory, or left their jobs, before the end of one year. The study covered 1,167 college trainees in 247 companies. According to the report, these 490 young men represented a total of $1,347,500 out of the window - on the basis of a median outlay of $2,750 per trainee for the year. Thus, one company said that out of 31 trainees, only 16 were left at the year's end. The actual loss to this company was $41,250 and the vacancies are still to be filled. Evidently, some of these companies are using a "hit or miss" selection procedure, or a variation of it.

Another method is to select salesmen as scientifically as possible, rejecting those who are obviously not qualified to succeed. This is easier said, than accomplished. However, the benefits of good selection are sufficient enough to warrant careful consideration of all selection procedures. Concentration on an endeavor to reduce failures rather than predict degree of individual success should be paramount. Many men who failed in selling never should have been hired because of their lack of selling capabilities. Good selection will eventually result in higher average production per salesman, which, in turn, should reward the salesman who regards selection of his personnel as important a function of sales management as quota-setting, pricing, and margin determination. Careful policies regarding training, supervising, and compensating salesmen are valuable only to the extent that the salesmen possess the capabilities to perform the tasks assigned to them. The choice of a planned or unplanned selection system is likely to make the difference between a profitable or unprofitable operation. Proper selection reduces turnover in the sales force; it decreases the cost of maintaining an adequate force; and in general, it lifts the morale of the entire
organization. Furthermore, the information received during the selection process can be a definite aid in counseling and training after employment. *(1) Often, weaknesses which should be strengthened are indicated. The records of the interviews, tests, and application blanks can later be used in setting standards for selection.

When, because of improper selection, the sales staff is made up of mediocre men, the sales cost per dollar of business may be very large, thus reducing the company's net profit. The direct costs of recruiting, selection, training, and supporting a new salesman can be compounded many times by turnover. *(2) Moreover, by the time a poor salesman is discovered and is no longer representing the company, irreparable damage to customer relations can be accomplished. It does not seem to be an exaggeration to say that the utilization of a poor selection system is like building a $100,000 house on a wooden foundation. No normal person intending to spend that much money is going to buy a house merely by looking at it from a distance, and not going inside to see what it looks like. Similarly, a sales manager can be compared to a purchasing agent, who, in this case, is going to purchase salesmen. *(3) He is buying the time and effort of men -- men whose eventual worth to the company will depend upon each having the right composite pattern of interests, aptitudes, abilities, and personality traits. To discover and evaluate these individual interests, aptitudes, abilities, and personality traits is the task of selection.

With the attention of the business world swinging toward distribution, the entire field of sales management is being carefully scrutinized.

Mass production has come to be regarded as a particularly American achievement, and now, that larger part of the consumer's dollar - the cost of distribution - is going to have to justify itself. Increase application of scientific methods will be evident in all phases of marketing activity. The impetus given to scientific progress in general by the development of the atom bomb has graphically illustrated to the people of the world that one element of man's progress - the human element - has not maintained the swift pace of science. In attempting to establish the United Nations as a bulwark of world peace, the peoples of the earth are wrestling with the complexities of human nature, and it is becoming very evident that in the social sciences we are still living in primitive times.

In the selection of salesmen these very same unknown factors of human relationships serve as limiting influences. There is very little science, here, which can explain cause and effect. For this reason, the development of tools and methods of selection has been very gradual, and at the present time, is too general to be called scientific. Any and all salesmen are very often lumped together in an amorphous mass known simply as "salesmen". No differentiation is made between retail selling, industrial selling, selling to corner magazine stores, or selling to engineers and executives of a company. In conversations, publications, and use of selection procedures, getting the product to the customer has been selling, "and that is all there is to it!"

Salesmanagers have "borrowed" entire selection systems from another company and tried to install it "as is" in their own operations. A survey of salesmanagers, made by several trade associations during the war, showed that less than two per cent of the executives checked had analyzed the jobs their salesmen were expected to do and written out
job specifications or definitions for them. It is safe to say that there is more vagueness and misunderstanding about the work of salesmen than any other group of employees. *(1)*

The inherent difficulty of orthodox selection systems which possess value have caused some sales managers to hope eternally for a "fool proof" system which will fit all circumstances. With the contemporary popularity of psychology, some very far-reaching claims about personality, ability, and intelligence tests have been made. There will probably never be a general "test for selecting salesmen". Certainly, no credence can be given to the value of graphologists, phrenologists, and physiognomists in establishing criteria for selection systems. In fact, there seems to be no substitute for common sense, experience (especially concerning job requisites, contacts with good and poor salesmen, and interviewing), and complete, well planned, well executed selection procedures.

II Author's Approach to the Problem

In order to limit the broad field of salesman-selection to the industrial field and to a specific treatment of the subject, a situation analysis and informal investigation was first attempted in the Boston area. My purpose in this preliminary investigation was to gain a first-hand knowledge of the extent, setting, and quality of the selection methods used by industrial companies. Since the Boston area is replete with industrial concerns, a very excellent opportunity for contact with the problem was afforded. Personal interviews were arranged with the regional (and in several cases, the company) Sales-manager or the Personnel Manager. Specifically, the following companies contributed initial information: the Monsanto Chemical Company; the Scott Paper Company; the American Optical Company; the United Shoe Machinery Company; the Apparatus Department of the General Electric Company; and the National Cash Register Company.

Since the scope of a thesis is necessarily limited, the problem of how much material to include immediately presents itself. The decision, in this thesis, resolved itself to the presentation of background material in salesman-selection, a brief look at methods actually in use by industry, and detailed studies of the complete selection process of two progressive industrial companies.

The information necessary to provide a basis for writing the thesis was obtained from many sources. Besides the initial company interviews, extensive use was made of all types of publication in the sales management, personnel, psychology, and other fields. Direct solicitation by letter was made of trade associations such as the American Management Association, American Marketing Association, and the Society for the Advancement of Management. Letters requesting information were also sent
to the headquarters of many publications including Sales Management, the Personnel Journal, and others. Most of the books in the field of salesman selection were also utilized. The material included in the two detailed studies was obtained during personal visits to the home offices of the Armstrong Cork Company, in Lancaster, Pennsylvania, and the General Electric Company, in Schenectady, New York. Additional data concerning these companies came from personal interviews in Boston with the respective company recruiters and sales personnel, and from secondary sources such as trade publications.

It soon became apparent during the investigation that the selection of salesmen as an art is definitely in its infancy. All companies are feeling their way along, depending mainly upon backgrounds, executive judgement, and training programs to differentiate salesmen from other groups. In fact, many of the steps in the selection process can be applied equally well to the selection of personnel at the same quality level of employment in many fields of endeavor. To further complicate the matter, the topic of the selection of salesmen is not distinctly sub-divided into the various classes of selling. In other words, the same basic tools are being used with minor variations to select many types of salesmen. The differences in the application of these methods is generally determined by the quality of salesman desired, background necessary, and the extent of company organization of the selection process.

Feeling that each industrial company presents a unique selling problem, and that few general statements can be made concerning selection of industrial salesmen, I have attempted to present in this study a picture of selection systems actually at work in industry. Extensive reading in the sales personnel selection field has shown me that there are
multitudinous differences of opinion as to which methods should be used, and as to how they are to be used. To make this thesis as complete a treatment as possible within its scope, and to present what I feel to be a logical and accurate analysis of methods, I have included a discussion of the major tools of selection. I have synthesized the best thoughts on the subject, and have added my original observations acquired primarily by personal contact with selection systems and selection personnel (some specific information was gained by experiencing the application of many of the selection methods of the Armstrong Cork Company in June, 1947). The inclusion of material on the Tools of Selection is intended, also, to serve as a background for the case presentations and their analyses later in the paper.

The section entitled "How Industry Actually Selects Its Salesmen" is included to establish a trend of thought leading to a detailed study of the two case histories which immediately follow. The purpose of the short discussion of contemporary methods is to show the reader some of the possibilities and combinations of methods which are being used in contemporary industrial selection systems. No attempt is made to editorialize on any system or to "dress up" any presentation. The descriptions are presented merely to show how these companies are meeting the selection problem. Perhaps, a standard or gauge with which to compare other selection systems may be gleaned by the reader from this information.

The choice of the Apparatus Department of General Electric Company and the Armstrong Cork Company for detailed analyses of selection methods was made primarily for three reasons. First, the size of these companies has enabled them to devote considerable money and manpower to the organization and implementation of their selection methods. Second, both of these companies are recognized leaders in the field of industrial sales selection. Their participation in numerous panels and discussions
of sales personnel selection has been requested, and many references are made to their progressive methods. Third, these companies were very cooperative in divulging their selection methods and any information pertinent thereto. Numerous personnel contributed valuable time to discussion and accumulation of material. The author is especially indebted to Mr. D. E. Irwin of the General Electric Recruiting Division and to Mr. Hicks Waldron of the Apparatus Department Sales General Office for their assistance in planning the accumulation of the General Electric material and for their personal interviews. Appreciation is also extended to Mr. D. S. Roberts of the Technical Recruiting Division, Mr. C. B. House of the Lynn River Works, Mr. Rice of the Apparatus Department's Boston sales office, and to others in Schenectady who assisted in the collection of the material. Much of the information utilized in the Armstrong Cork Company case history was accumulated by the author during his contacts with personnel and Sales Departments while employed by the company. Special credit to Mr. J. E. Smith, Employment Supervisor, is acknowledged for his cooperation and assistance in obtaining written secondary information and personal interview data.

Included in the General Electric and Armstrong Cork case material are sections concerning the sales organizations and the selling jobs involved in the distribution of the respective products. This information is presented to indicate the degree of specialization required of each salesman, the extent of organizational development, and the assistance available to the salesman in performance of his responsibilities. It is hoped that this background picture will facilitate evaluation of the salesman's operating position in the company.

It must be recognized that the low turnover in salesmen experienced by both the General Electric Company's Apparatus Department and
the Armstrong Cork Company may not be entirely attributable to their selection methods. Both these companies share the advantages of the drawing power of large size, the services of a high quality salesman, fair personnel policies, prestige, and many other desirable employment attributes. However, despite the effect of these influences on the quality of their sales organizations, the methods of selection can undoubtedly share a large part of the credit; and therefore, are worthy of perusal by any student of industrial sales personnel selection.
III The Tools of Selection

1. The Application Blank

One of the best aids to judgement in the selection of salesmen is the application blank. If used intelligently, it can serve to accumulate pertinent information about the applicant, weed out the obviously undesirable or unqualified, establish employee statistics, and act as a basis for comparison among applicants. The application blank, however, is only one of the tools of selection and should be used in conjunction with other information.

There is no ideal application blank which can be applied to any or all jobs, but each blank should be carefully designed for a particular position. In designing the questions, the information which is being sought should be as pertinent to the job as is determinable. The questions should be limited in number and have definite relevancy in determining the candidate's qualifications. Unfortunately, many application blanks in use today are unnecessarily long and contain several "sleeper questions" put there by some executive to enable him to use his own psychological analysis in evaluating the applicant's reply to the question -- which, naturally, is of "decisive significance".

It must also be remembered that many questions can be answered with information which is easily distorted. The following items are of such doubtful practical value in aiding selection that it would seem superfluous to include them on any application blank *(1) (unless, perhaps, it was intended that the answers to several of the questions were to be checked with the actual facts as a test of the applicant's veracity.

*(1) Saul Poliak, Rebuilding The Sales Staff, New York and London, 1947, p. 38
Have you ever defaulted on a debt?
Do you drink excessively?
Do you gamble?
Do you speculate in stocks?
What is your ambition in life?
Was your childhood happy or unhappy?
What are your principal assets and weaknesses?
Do you need a job urgently?

In addition to questions which have some bearing on the qualifications necessary for the job, most application blanks also include a place for information of a purely factual nature. These data should not be used as a basis for selection or rejection, but serves mainly for record purposes. Included in this category are the following items:

1. Social Security Number
2. Telephone number
3. Automobile registration data
4. Address
5. Names of relatives

Among the data sought on many application blanks are the following items. *(l) Again, it is emphasized that frequency of use of questions by companies or the pet ideas of a particular individual are no criteria for the inclusion of data on the blank.

Applicant's name.
Date application filled out.
Home address (length of residence).
Business address.
Date of birth, and age.
Marital status.

Dependents

Education:

Grammar School - name, location, dates, graduation
High School - name, location, dates, graduation
College - name, location, dates, graduation
Other - name, location, dates, graduation

Activities during vacation while at school

Health

Time lost because of illness in recent years

Participation in sports

Organizations and social associations

Offices held in organizations

Financial status - investments and savings

Prior employment:

Names of companies, location, dates
Type of business in each case
Kind of work
Salary
Reasons for leaving

Periods of employment

Sales experience

Position desired

Minimum salary acceptable

References

Signature of applicant

A few special considerations become a part of the analysis of several items on the application blank, namely, References and Health.

The references which an applicant gives are valuable in aiding selection only to the degree in which they actually reflect the true opinions of persons qualified to pass upon the ability and qualifications of the candidate. Often, the recommendations are emotional and rationalized to the extent that they will give the man a "decent send-off", and
not stand in his way to obtain another job. Although there may be undesirable features about the applicant, the person giving the reference may be either so relieved at being rid of the former employee, or he may be a close friend, that he will strive to remember to report only those features which are good. It should be remembered, however, that failure or unsatisfactory performance on a previous job does not necessarily preclude acceptable or even good results in a new position. Sales jobs differ from company to company and even vary in the selling of the products of one company.

This, then, transfers to the prospective employer the responsibility for obtaining accurate information from a reference. He can do this by writing, telephone call, or personal call upon the person making the recommendation. Of these, the letter is least desirable. Again, the recommendation is reduced to writing, leaving unsaid those small innuendos which can shed so much light upon a situation. When they are to be quoted in black and white, most persons are ultra-careful in forming the content of their utterances. A phone call, however, will enable the checker to take note of at least the vocal endorsement or lack of endorsement of the applicant. The tone of voice, willingness to reveal information, and lack of formality all assist in gaining more background with which to judge a reference. The personal call includes all of the advantages of the phone call, plus the extra sensory aid — sight. In addition, the personal contact enables both interviewer and interviewee to make some judgement of each other's reliability, to conduct the conversation on a more relaxed basis than the time and charge limitations of the telephone affords, and to talk more freely and at greater length about points in question.

Questions concerning health which are directed at the applicant belong, in the majority, in the category described before as being superfluous. That most sales positions require certain definable physical qualifications necessitated by hours of work, travel, appearance, and
many other factors is evident. But, to the average person, the evaluation of physical ability is purely hearsay and conjecture. Then, too, most persons will hesitate to prejudice their application by blandly stating that they do have some physical difficulty which will make the performance of their job either difficult or impossible. It appears, therefore, that the only real test of physical condition is an examination by a qualified physician who is familiar with the requisites of health necessary for satisfactory job performance. (For instance, near and far vision, color blindness). If desired, health questions can be included on application blanks, but should be used only in a negative sense — to point to possible difficulties, and not to serve as qualifying statements.

2. The Weighted Personal History

The weighted personal history is a specialized form of the application blank in which some selected items of personal history are assigned values for use in determining a total numerical evaluation of a candidate's desirability for a job. The design of such a test of qualifications requires even more care and experience than the ordinary application blank.

The formation of a weighted personal history should begin with a careful study of the application blanks and employment records of past and present salesmen. At this stage of preparation, it would be well to secure the services of a trained industrial psychologist and statistician. It will be necessary to secure as accurate, fair, and complete evaluation as is possible of the desirability or lack of desirability of the salesmen whose applications are being studied. In most cases, these decisions will be made by sales supervisors who will consider sales records plus the over-all value of the salesman to the organization in the performance of such duties.
as customer-contacts, collections, development of new business, and ability to cooperate with the company personnel. Once the employment records have been classified on a basis resembling sub-divisions such as favorable, questionable, unfavorable, it will be necessary to statistically validate and select personal history items which show correlation with good and poor salesmen. This is where the services of the psychologist-statistician are essential.

Usually, ten or fifteen items are selected as having correlated with effective sales results. The items selected by a large insurance company are presented here as an illustration of the type of information which they believe to be pertinent to job performance. *(1)*

1. Number of dependents.
2. Occupation.
3. Employment status (time out of work).
4. Time with present employer.
5. Present membership in organizations.
6. Office in how many organizations.
8. Minimum current living expenses.
9. Amount of insurance owned.
10. Length of negotiations.

As accurately as is possible, numerical values are statistically assigned to the various gradations of the selected factors. An illustrative weighted application is exhibited in Fig. 1. The total point score for an applicant is obtained by adding the individual totals. This numerical score is then compared with the standard established by the scores of the salesmen.

Recording Form For
The Weighted Application Blank

Name ___________________________ Date ________________________
Address ___________________________ City ___________________________ Phone ___________________________
Date of Birth ___________________________ Soc. Sec. No. ___________________________

Weight Score

<table>
<thead>
<tr>
<th>Age</th>
<th>Weight Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 - 26</td>
<td>2</td>
</tr>
<tr>
<td>26 - 37</td>
<td>4</td>
</tr>
<tr>
<td>37 - 45</td>
<td>2</td>
</tr>
<tr>
<td>Over 45</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</table>

Formal Education

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Weight Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar School</td>
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</tr>
<tr>
<td>Some High School</td>
<td>1</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>3</td>
</tr>
<tr>
<td>Some College</td>
<td>4</td>
</tr>
<tr>
<td>College Graduate</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

Marital Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Weight Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>4</td>
</tr>
<tr>
<td>Single</td>
<td>3</td>
</tr>
<tr>
<td>Widowed</td>
<td>3</td>
</tr>
<tr>
<td>Divorced or Separated</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</tbody>
</table>

Organizations Belonged To

<table>
<thead>
<tr>
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<th>Weight Score</th>
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</thead>
<tbody>
<tr>
<td>None</td>
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</tr>
<tr>
<td>1 - 2</td>
<td>3</td>
</tr>
<tr>
<td>3 or more</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</tbody>
</table>

Dependency Status

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>1 - 4</td>
<td>4</td>
</tr>
<tr>
<td>Over 4</td>
<td>2</td>
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<td>Total</td>
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</table>

Number of Jobs Last 5 Years

<table>
<thead>
<tr>
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<th>Weight Score</th>
</tr>
</thead>
<tbody>
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<td>4</td>
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<tr>
<td>2 or 3</td>
<td>3</td>
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<tr>
<td>4 or more</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
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</table>

Financial Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Weight Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has savings or life insurance</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

Experience

<table>
<thead>
<tr>
<th>Experience</th>
<th>Weight Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally unrelated</td>
<td>0</td>
</tr>
<tr>
<td>Related field, not selling</td>
<td>2</td>
</tr>
<tr>
<td>Selling unrelated product</td>
<td>2</td>
</tr>
<tr>
<td>Selling related product</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

Employment Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Weight Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Now employed</td>
<td>4</td>
</tr>
<tr>
<td>Unemployed 0-3 months</td>
<td>2</td>
</tr>
<tr>
<td>Unemployed 3 months or over</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

Total Score ___________________________

Weighted Application Blank Form Used by The Bryant Heater Company

Figure 1
who comprised the study. I have phrased the assignment of numerical values to the factors as being "as accurate as possible" because of the inherent difficulty of positively validating essential factors, or the degree of their essentiality. Some items just do not lend themselves to a direct "yes or "no" or numerical evaluation. Even more difficult is the bland assignment of points within a certain classification, such as "Present Salary". In the assignment of 8 points for a salary of $200 - $250, 5 points for $350 - $400, and 1 point for $250 - $350, there is considerable latitude for error, assumption, and bias. If hiring is to be carried out over a wide age range, some scale of adjustment, or "bye", to equalize the inequalities which time has introduced into such factors as Insurance Owned, Present Income, and House Ownership should be introduced.

When levels of numerical performance have been determined for each of the factors selected as "essential", they may be plotted to form a "profile" against which applicants may be measured. Such a graph is illustrated in Fig. 2. There is no statistical finality about such a graph, but it can afford pictorial aid in locating high and low points of personal history.

In using either the plain application blank or the weighted personal history, it should be realized that their value lies mainly in rejection. They can be used to screen and indicate those applicants who will eventually be disqualified, and in whom further investment of money and time would be unproductive. Although it is a statistically crude mechanism, it can be said that the application blank works pretty well -- which is saying a good deal, considering the poverty of so many other methods. *(1)*

The weighted personal history should be used with full recognition of its limitations characterized by the selection and weighting of its items.

Figure 2

3. The Interview

The interview provides an opportunity for the filling in of those hiatuses of the "total picture" of a sales applicant which appear after all the written historical and predictive information is collected. No matter who complete with searching questions the application blank is, and regardless of the number of tests given (tests will be discussed in a later section), the sum total of a person's ability to fit in as a member of a particular organization must include that very important element, personal contact. Only by actual physical proximity and communication can the qualities of personal contact be evaluated. The personal interview, then, can be compared to the human senses in as much as it serves as a "sense" for that fictional corporate body known as "The Selection Method".

The timing of the use of the interview in its coordination with the other selection tools may determine the character of the interview. For instance, either a preliminary application blank, a preliminary interview, or both may be used as a screening devise for weeding out candidates who obviously lack some of the qualifications necessary for the particular position. If the preliminary interview is to be used for this purpose, it is generally short and designed to touch only upon the high spots of a qualifying nature. This is not to de-emphasize the importance of the preliminary interview, but is intended merely to indicate that its appearance early in the selection process when the number of applicants is at a maximum necessarily calls for a less exhaustive verbal analysis of the applicant than is the case when the interview appears later.

If, however, application blanks have been filled out and tests have been given, the interview then assumes the job of attempting to differentiate on a qualitative basis between a limited number of selected applicants.
Even if the written information concerning the potential salesman has been accumulated, a portion of the historical facts may be included also in the interview. The manner in which the information is verbally divulged by the applicant may add color and shading to the pure fact in a mannerparalleling the addition of flesh to a skeleton. Sometimes, the interview is the first source of information concerning background, experience, and other factual data. In this case, the basis of the interview may very well be a spoken form of the application blank.

It should be remembered, however, that the primary purpose of the interview is to obtain that information which cannot be revealed in an inanimate object, such as an application blank. Those qualities of appearance, persuasiveness, personality, sales technique in the applicant's ability to convince the interviewer of his desirability for the job, and self confidence are some of the factors belonging in the bailiwick of the interview. In this personal conversation between employer and potential employee, a sales situation is created, and the time devoted to the interview might be termed an "impression-getting session". There are also limitations to the data which may be obtained in this manner. Such qualities as dependability, loyalty, honesty, and sincerity can only be matters of conjecture until sufficient time has elapsed to allow for a factual judgement. But, by conducting the interview with the perspective of a customer in the selling field, the sales manager can establish a practical standard by which he can formulate judgements of the qualities to be considered.

When speaking of individual judgements of human qualities, a note of caution can profitably be considered. There are many persons who believe sincerely that fortunately they possess the faculty of talking briefly to another person, and forming thereby a conclusive
judgement of this person's ability, personality, and character. Many far-reaching statements have been made concerning the correlation of intelligence with the wearing of horn-rimmed glasses, the weakness of character with anything but a firm handshake, the resoluteness of purpose of the individual with the square jaw, and many others. This attitude has very aptly been summarized in a poem. *(1) "I do not like thee, Dr. Fell. The reason why, I cannot tell; But this I know, and know full well, I do not like thee, Dr. Fell."

These omnipotent analyzers very often use as their criterion the memory of an individual displaying some extreme - either good or bad - of a particular quality. This "type" then becomes the standard by which all similar physical types are classified.

That individual opinions and interpretations of human qualities differ is amply illustrated by the results of an experiment in which twelve sales managers were asked to interview and rate 57 applicants on the basis of their desirability as future salesmen. The results are shown in Fig. 3. Candidate "J" was rated by sales manager "12" as being the best of the fifty men he interviewed. Sales manager "8", however, rated "J" as one of the worst applicants he interviewed. When studying the statistical implications of this particular survey we gain some idea of the subjective nature of interviewing. Thus, if we compute the coefficient of correlation between the choices of Mr. "2" and Mr. "4", we find the figure to be 0.26. *(2) A coefficient must be as high as 0.50 to indicate an agreement of as little as 13 per cent better than chance. The figure obtained of 0.26 is scarcely 4 per cent greater than would have

Ranks Assigned Applicants By Interviewers

<table>
<thead>
<tr>
<th>Applicant</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>33</td>
<td>46</td>
<td>6</td>
<td>56</td>
<td>26</td>
<td>32</td>
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<td>9</td>
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<tr>
<td>B</td>
<td>36</td>
<td>50</td>
<td>43</td>
<td>17</td>
<td>51</td>
<td>47</td>
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<td>20</td>
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<td>55</td>
<td>39</td>
<td>9</td>
</tr>
<tr>
<td>C</td>
<td>53</td>
<td>10</td>
<td>6</td>
<td>21</td>
<td>16</td>
<td>9</td>
<td>20</td>
<td>2</td>
<td>57</td>
<td>25</td>
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<td>D</td>
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<td>13</td>
<td>48</td>
<td>7</td>
<td>8</td>
<td>43</td>
<td>11</td>
<td>17</td>
<td>12</td>
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<td>9</td>
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<tr>
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<td>19</td>
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<td>10</td>
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<td>8</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>F</td>
<td>18</td>
<td>13</td>
<td>13</td>
<td>8</td>
<td>11</td>
<td>15</td>
<td>15</td>
<td>31</td>
<td>32</td>
<td>18</td>
<td>25</td>
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<td>G</td>
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<td>2</td>
<td>13</td>
<td>16</td>
<td>28</td>
<td>46</td>
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<td>32</td>
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<td>10</td>
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<td>54</td>
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<td>53</td>
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<tr>
<td>I</td>
<td>2</td>
<td>36</td>
<td>6</td>
<td>23</td>
<td>11</td>
<td>7</td>
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<td>6</td>
<td>9</td>
</tr>
<tr>
<td>J</td>
<td>43</td>
<td>11</td>
<td>13</td>
<td>11</td>
<td>37</td>
<td>40</td>
<td>36</td>
<td>46</td>
<td>25</td>
<td>15</td>
<td>29</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 3

been found if the ten men had been assigned numbers which were drawn out of a hat.

The inference here is not that the interview is of little use in selecting salesmen, but rather that trained, objective interviewing must be used. As evidenced above, the impression depends not so much upon the individual giving as it does upon the one receiving the stimulus. As in market analysis, the form or framing of the question is very important. The question phrased "Should the U.S. do everything possible to establish world peace?" will evoke an entirely different response than the question, "Should personal income taxes be raised to support world peace?". The interviewer must realize that the interview is a two-way affair. The usual tendency is for the interviewer never to question his position, or the soundness of his statements. To facilitate the collection of usable information, the interviewer should have special training in the theory of personality and the techniques of the interview. His level of intelligence should be at least equal to that of the persons whom he will interview. The interviewer should also be aware that the applicant will be on his best behavior, seeking clues as to what answer will most satisfy a particular question. It is also true that the interviewee will also be under a strain resulting from the pressure of qualification, and the unfamiliar surroundings. These superficial effects can be reduced in importance, however, if the interviewer can measure up to these standards. *(1)*

(a) Knowledge of and experience with the demands of the job (a job description is not sufficient).
(b) An understanding of people based upon experience.
(c) Knowledge of himself (prejudices, bias, emotions). These influences are a limit to the value derived from an interview.
(d) Ability to inspire confidence and security to the interviewee.

It is indeed important that the interviewer be as qualified for his function as the employer hopes his sales applicant is.

Although the type of information peculiar to the interview as a source is that concerning physical, mental, personality, speech, and idea factors rather than historical, the interview must head for a definite goal. A very good aid in directing the conversation and development of thought in an interview is the Standardized Interview (see Fig. 4). This form is especially useful when the interview is one of the first procedures used in the selection process. At this stage of employer-employee contact, the information listed on the Standardized Interview blank is unknown. Even if application blanks have already been completed, the form will serve as guide to the interviewer in keeping the conversation going, and in assuring that each applicant will present answers for analysis which are based on the same general questions. The Standardized Interview also serves as a written record of the applicants background, affords a standard which is especially useful in decentralized hiring (at branch or district offices), and does not require a specialist in interpreting the results obtained. According to Osborne, standardized interviewing procedures had reduced the initial error of prediction in several organizations by more than 50 per cent, as measured by the employee's ability to do the work required after being given the standard training provided. *(1) At any rate, the standardized interview will assist the interviewer in that utopia of interviewing --- the skillful asking of informal, yet specific, integrated questions.

*(1) David R. Osborne, Salesmen For Tomorrow, New York and London, 1945, p. 44
### Work Experience

Cover all positions. This information is very important. Show present (or last) position first. Every month since leaving school must be accounted for:

#### Last or Present Position

<table>
<thead>
<tr>
<th>No.</th>
<th>Company</th>
<th>City</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>

2. How was job obtained?
3. Nature of work
   - Salary
4. Were promotions obtained or raises in pay received?
5. Was there anything you specially liked about the job?
6. Was there anything you specially disliked?
7. Reasons for leaving

#### Next to Last Position

<table>
<thead>
<tr>
<th>No.</th>
<th>Company</th>
<th>City</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>

2. How was job obtained?
3. Nature of work
   - Salary
4. Were promotions obtained or raises in pay received?

---

5. Was there anything you specially liked about the job?
6. Was there anything you specially disliked?
7. Reasons for leaving

#### Second from Last Position

<table>
<thead>
<tr>
<th>Company</th>
<th>City</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>

2. How was job obtained?
3. Nature of work
   - Salary
4. Were promotions obtained or raises in pay received?
5. Was there anything you specially liked about the job?
6. Was there anything you specially disliked?
7. Reasons for leaving

#### Other Positions

<table>
<thead>
<tr>
<th>Company</th>
<th>Position</th>
<th>Salary</th>
<th>Date Started</th>
<th>Date Left</th>
<th>Reasons for Leaving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How many weeks have you been unemployed in the past five years?
How did you spend the time?
How did you support yourself?
What efforts did you make to obtain work?

Have you ever drawn unemployment benefit compensation?
   - Yes  No
   - (If yes,) when and how long?

Have you ever been on relief or WPA?
   - Yes  No
   - (If yes,) what project and how long?

Have you ever been arrested for other than traffic violation?
   - Yes  No
   - (If yes,) what charge?

#### Schooling

<table>
<thead>
<tr>
<th>How far did you go in school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1   2   3   4   5   6   7   8</td>
</tr>
</tbody>
</table>

---

STANDARDIZED INTERVIEW FORM FOR SALES MEN (Continued)

High School: 1 ......... 2 ......... 3 ......... 4 .........
College: 1 ......... 2 ......... 3 ......... 4 .........
Other

Graduated: Yes ......... No ......... Date of leaving school?

Age at leaving school

If applicant did not graduate from high school or college, why not?

Did you take any courses by correspondence, at night or in a vocational school?

Were they completed? Yes ......... No .........
If not, why not?

What activities, such as athletics or debating, did you participate in while in high school?

Did you hold office in any of these groups?

What school activities did you participate in while in college?

Did you hold office in any of these groups?

What was the principal source of your spending money while in high school and college?

What part of expenses were earned during high school and college?

What part of spending money was earned during high school and college?

Family Background

What was the occupation of your father?

Number of children in family: Number older:

Number younger: Average earnings of father

Was it necessary for you to help your family financially when you were growing up?

How did you spend your summer vacations while a boy?

How did you spend your leisure time, after school and on Saturdays?

Did you take part in church activities?

What denomination was attended?

Did you belong to any 4-H clubs, high school judging teams, the Boy Scouts or similar groups while a boy?

Did you hold any positions of leadership in these groups?

Present Financial Situation

Do you own: rent your home: live with relatives: board

If home is owned, how much is owed on it?

How much rent is paid? Is furniture owned?

How much do you estimate it costs you to live per month?

Do you have any debts other than current living expenses?

Have you ever been bonded? Yes ......... No .........

Have you ever been refused bond? Yes ......... No .........

Have your wages ever been garnished or assigned? Yes ......... No .........

Has any of your property been lost through foreclosures? Yes ......... No .........

Have you ever been discharged through bankruptcy? Yes ......... No .........

What is your present net worth? $ .........

Must you contribute to the support of your parents, relatives or others? Yes ......... No .........

Do you have any other source of income? Yes ......... No ......... If yes, specify

Is your wife employed? Yes ......... No ......... If yes, at what kind of work?

Is it steady? Yes ......... No .........

Earnings

Are any other members of applicant's family (children) employed? Yes ......... No .........

If yes, what kind of work?

Earnings $

How much insurance do you carry? Life

How much insurance do you carry? Car

Domestic Status

Married: Single: Widowed:

Divorced: Separated: Have you been married previously? Yes ......... No .........

If yes, when and what was the reason for end of marriage? Death

Divorce: Separation: If you are separated or divorced, what are the reasons for this?

Have you ever had any trouble with your present wife or previous wives? Yes ......... No .........

Specify

What do you do for recreation?

Do you have any hobbies?

To what extent do you and your wife entertain?

Do you drink? How much?

How many close friends do you have?

Are there any kinds of people, religious denominations, nationalities, or racial groups you do not like?

Health

How was your health as a child?

What is present state of your health?

Do you suffer from: Defect in speech: hearing: sight: rupture: Have you a history of tuberculosis: nervous breakdown: rheumatism: asthma: flat feet: heart trouble: hay fever: Other:

Are you subject to colds? How much time have you lost from work during the past year because of illness?

What is the state of your wife's health?

How is your children's health?

How soon can you start to work?
4. Tests

In an era during which science has been the "key-note", psychological testing for selection purposes is receiving an increasing amount of attention. The comments about testing for salesman-selection are too often extreme, with little credence given to a conditioned opinion. Either the tests will indicate in black or white which man can sell, or they are positively dangerous and shouldn't be used. According to expert opinion, the value of psychological testing lies in a custom-built test-battery, professionally administered, and interpreted with full realizations of the limitations inherent in the design of the tests. The men who have developed some of the most widely used tests are the first to admit the limitations of their creations. For instance, Robert G. Bernreuter* (originator of the Bernreuter Personality Inventory) says, "If you are responsible for selecting individuals for jobs, I think you will get very little benefit from personality trait tests as they are now devised". Such authoritative opinion should help to dispel any fond hopes that a test for general sales ability is or will be available in the near future.

Actually, psychological testing is not widely employed by industry. In a survey of 350 industrial firms, one investigator found that only 10% of the companies studied used testing in their selection procedures, 5% were experimenting with tests, and 85% of the companies did not use any tests. *(2) As indicated above, the claims for the tests ranged from excellent to worthless. The underlying reasons for these variances in usefulness to the companies seemed to lie in the answers to


two questions:

(1) Did you develop the tests yourself or did you consult a competent psychologist or sales testing organization?

(2) What standard tests did you include in the battery you used?

Since most selling jobs differ greatly in products, customers, channels of distribution, and many other factors, there cannot be a single "sales type". Therefore, tests are limited in the information which they can give in evaluating competency for a particular sales job. Tests are merely devices for sampling a salesman's behavior and aptitudes. The combination of qualities which contribute to good salesmanship is complex, and for this reason, best results are obtained from the use of a battery of selected tests. Most of the tests generally used in selecting salesmen may be grouped under the following classifications:

(1) Tests of mental ability.

(2) Tests of ability to understand human nature.

(3) Personality tests.

(4) Tests of interest in selling.

(5) Sales aptitude tests.

From the many tests available, the company (with the help of a trained psychologist) must select a combination which seems most favorable for measuring the qualities necessary for the job being studied. A careful analysis of all the ramifications of the selling job should be the primary basis for exploratory work in testing. The tests must then be given to a group of new employees, and the results retained for comparison with job performance in subsequent years. This procedure is known as validation. It is an indication of the correlation between the test scores and some sales criteria. Here, a word of caution should be
injected. The validity of the tests is only as good as the criteria utilized. If the standards chosen for satisfactory performance are erroneous, then the tests are worthless.

Just as important as validity in choosing worth-while tests is the phenomenon of reliability. To be of value, a test must also be reliable; it must measure consistently whatever it measures. *(1) A test is reliable if it consistently gives the same score to an employee when he is retested. A good test should possess both the attributes of validity and reliability.

To give some indication of the current opinion on specific tests to use in sales selection, the following recommendations of an authority are presented: *(2)

Test 1 - Mental Ability - The Higher Examination Form A of the Otis Self Administering Test of Mental Ability (shown in Figure 5).

Test 2 - Personality - The Personality Inventory by Robert G. Bernreuter (Figure 6).

Test 3 - Sales Aptitude - The Personnel Institute Interest Inventory for Sales People.

Test 4 - Social Intelligence - Sections 1 and 3 of the Moss Social Intelligence Test.

The opposite of hate is (?)
1 enemy, 2 fear, 3 love, 4 friend, 5 joy . . . . . . . . . . . . . . ( )

Which one of the six statements below tells the meaning of the following proverb? "The early bird catches the worm." . . . . . . . . ( )
1. Don't do the impossible.
2. Weeping is bad for the eyes.
3. Don't worry over troubles before they come.
4. Early birds like worms best.
5. Prompt persons often secure advantages over tardy ones.
6. It is foolish to fret about things we can't help.

Which word makes the truest sentence? Men are (?) shorter than their wives.
1 always, 2 usually, 3 much, 4 rarely, 5 never . . . . . . . . ( )

A contest always has (?)
1 an umpire, 2 opponents, 3 spectators, 4 applause, 5 victory ( )

The opposite of awkward is (?)
1 strong, 2 pretty, 3 short, 4 graceful, 5 swift . . . . . . . . ( )

Which one of the six statements below tells the meaning of the following proverb? "The burnt child dreads the fire." . . . . . . . . ( )
1. Frivolity flourishes when authority is absent.
2. Unhappy experiences teach us to be careful.
3. A thing must be tried before we know its value.
4. A meal is judged by the dessert.
5. Small animals never play in the presence of large ones.
6. Children suffer more from heat than grown people

What people say about a person constitutes his (?)
1 character, 2 gossip 3 reputation, 4 disposition, 5 personality ( )

Suppose the first and second letters in the word CONSTITUTIONAL were interchanged, also the third and fourth letters, the fifth and sixth, etc. Print the letter that would then be the twelfth letter counting to the right . . . . . . . . . . . . . . . . . . . . . . . . . . ( )

What is related to few as ordinary is to exceptional?
1 none, 2 some, 3 many, 4 less, 5 more . . . . . . . . . . . . . . ( )

Print the letter which is the fourth letter to the left of the letter which is midway between 0 and S in the alphabet . . . . . . . . . . . . . . ( )

A Few Questions from the
Otis Self-Administering Tests of Mental Ability

(Marketing Handbook p. 688)

Figure 5
1. Yes No ? Does it make you uncomfortable to be "different" or unconventional?
2. Yes No ? Do you day-dream frequently?
3. Yes No ? Do you usually work things out for yourself rather than get someone to show you?
4. Yes No ? Have you ever crossed the street to avoid meeting some person?
5. Yes No ? Can you stand criticism without feeling hurt?
6. Yes No ? Do you ever give money to beggars?
7. Yes No ? Do you prefer to associate with people who are younger than yourself?
8. Yes No ? Do you often feel just miserable?
9. Yes No ? Do you dislike finding your way about in strange places?
10. Yes No ? Are you easily discouraged when the opinions of others differ from your own?
11. Yes No ? Do you try to get your own way even if you have to fight for it?
12. Yes No ? Do you blush very often?
13. Yes No ? Do athletic interest you more than intellectual affairs?
14. Yes No ? Do you consider yourself a rather nervous person?
15. Yes No ? Do you usually object when a person steps in front of you in a line of people?
16. Yes No ? Have you ever tried to argue or bluff your way past a guard or doorman?
17. Yes No ? Are you much affected by the praise or blame of many people?
18. Yes No ? Are you touchy on various subjects?
19. Yes No ? Do you frequently argue over prices with tradesmen or junkmen?
20. Yes No ? Do you feel self-conscious in the presence of superiors in the academic or business world?
21. Yes No ? Do ideas often run through your head so that you cannot sleep?
22. Yes No ? Are you slow in making decisions?
23. Yes No ? Do you think you could become so absorbed in creative work that you would not notice a lack of intimate friends?
24. Yes No ? Are you troubled with shyness?
25. Yes No ? Are you inclined to study the motives of other people carefully?
26. Yes No ? Do you frequently feel grouchy?
27. Yes No ? Do your interests change rapidly?
28. Yes No ? Are you very talkative at social gatherings?
29. Yes No ? Do you ever heckle or question a public speaker?

A Page from the Personality Inventory

(Marketing Handbook p. 691)

Figure 6
5. Job Analysis

The sales job-analysis can be considered to be the pattern with which to "tailor-make" a system of selecting salesmen for a particular company. Since the same basic selection processes are used to select personnel for multitudinous fields of work, real value can only be obtained by adapting and designing selection methods to evaluate ability to perform a specific task. Even within a company which sells to wholesalers and retailers, requirements for satisfactory selling to these two outlets are sometimes so different that criteria set up to choose salesmen operating in the wholesale channel are entirely inadequate for use in selecting retail-distributor salesmen. Only by detailed study of each selling job can any worthwhile selection criteria be established. The blueprint for this foundation to the selection system has been entitled "the job analysis".

According to one widely used definition, job analysis is "the process of determining by observation and study, pertinent information relating to the nature of a specific job". *(1) The basic data relating to the salesman's activities and duties can be assembled by several methods: *(2)

1. The research man himself possessed of a first-hand knowledge of the detailed procedures involved in the job, can prepare a comprehensive listing of the activities based on methodical retracing of the activities he performed as a salesman.

2. The research man can observe salesmen in the field, recording their activities in detail.

3. The research man can interview salesmen, obtaining from them detailed verbal data about their duties.

(4) Information can be obtained by interviewing sales supervisors, district sales managers, and other sales executive personnel in the field.

The investigation should be designed and executed to discover and evaluate material which can be transcribed into a written record of the duties, responsibilities, and requirements of a particular sales job. All aspects of the job should be viewed and noted. Later, after all material is available, the findings should be edited and the relevant and essential items retained as a guide for hiring procedures. Among the factors usually considered valuable in defining a sales position are the following:

(1) **Objective** - Just what is the purpose of having this particular sales representative in the field? Is he there primarily to get orders, give service and advice, or report on market trends? Is the company-salesman connection close enough to cause the customer to associate his actions with the reputation of the firm?

(2) **Job Title** - Companies have varied nomenclature for their salesmen. Here are some: consultants, sales engineers, service representatives, missionary men, merchandisers, manufacturer's representatives, route men, and many others. Often, the title will serve as a psychological definition of the duties.

(3) **Compensation** - The method of determining compensation - salary or commission or combination? What are earnings now and future prospects? Realism is especially appropriate, here.

(4) **Age** - Are there any age limitations and why do they limit? The decision should not be arbitrary, but rather
based upon fact.

(5) **Physical Requirements** - Are there any automatically disqualifying physical attributes? Is there much traveling, irregular hours, visual detail work, and entertaining involved?

(6) **Education** - Is a technical background essential? Must the salesman be a high-school or college graduate? Will education be a qualifying factor in maintaining social contacts?

(7) **Experience** - What background factors are essential to satisfactory performance of the job. Will medical, office, machine shop, literary, chemical, production, scientific, accounting, design, agricultural, or other experience aid in understanding the product or customer's problems? How does social experience fit into the picture?

(8) **Customers** - What is their social, educational, and economic level? Are they executives, engineers, purchasing agents, foremen, wholesalers, manufacturers, men, women, accountants, or others? How much in common with the customer does your salesman possess?

(9) **Type of Selling** - Is it point of purchase selling or are long periods of negotiation involved? What are the buying motives and selling appeals? Will the salesman spend considerable time in strictly non-productive activities from a sales viewpoint such as engineering consultation, materials testing, and specification development? Is a considerable amount of initiative required in solving original problems, cultivating
new customers, and developing new selling approaches? Will there be any important on-the-spot decisions by the salesman as to price, credit, guarantee or warranty? Develop a list of the products sold, the volume of business, and the financial arrangements necessary.

An analysis expanded upon the skeleton just described will, in most cases, be very revealing. It will often show too extensive coverage of duties by one salesman, and may cause the elimination of certain items to allow more concentration on other duties. It should, in any case, serve as a guide in choosing selection tools and in combining procedures for evaluating fitness for a particular sales job. The job analysis provides a standard with which those ascertainable sales attributes which have been revealed by carefully designed selection methods can be compared. Constant revision of sales job analysis must be made to obtain current, factual information. Significant changes, in turn, must be translated into revised selection standards. Like a chart to the navigator, the job analysis serves as a point of location to the salesman in the intelligent hiring of salesmen.
IV. How Industry Actually Selects Its Salesmen

In order to relate the theoretical methods of salesman-selection to the realm of practicality, it would seem worthwhile to view the selection mechanism at work in various industries. Here, we view the objective tools of selection in their environment, and gain some appreciation of their subjective values to different companies.

The need for 1,000 post-war salesmen prompted The White Motor Company of Cleveland, Ohio to establish a detailed plan for selection. Their recruiting program called for contacts with a possible 10,000 applicants obtained from the following sources:

(a) Successful salesmen from other businesses
(b) Engineers with selling ability
(c) Young men with sales experience
(d) Men recommended by customers
(e) Outstanding college graduates
(f) Shop men who can sell
(g) Men with specialized knowledge to fit a specific need
(h) Men who know your business

As a pre-interview screen, the company utilized application blanks to reveal personal history, past record, and experience. Upon the consent of the candidate, a telephone check of previous employers was made. In addition, a patterned interview was given to afford more background data. *(1)*

As a service to gas companies, distributors, and dealers in the gas heating field, The Bryant Heater Company sponsored the design of a

*(1)* H. D. Laidley, "Four-Pronged Plan For Recruiting The Post-War Selling Force", *Sales Management*, June 15, 1945, pp. 35-8
salesman-selection kit. Made of 9x12 cardboard and entitled "Sales Talent Indicator", the kit has sub-divisions for easy use, and when completed, becomes the applicant's personnel record. The kit contains (a) a weighted application blank, supplemented by a recording form and reference check form. Information required by the application blank covers the physical, marital, financial, and educational status of the candidate. The applicant's view as to why he is suited to gas sales is also requested. (b) A regulated interview form (c) a sales classification test - as a key to the general intelligence of the applicant, and mechanical aptitude. The tests were prepared by the Personnel Research Institute of Western Reserve University after field work in analyzing the test results contributed by 200 salesmen in the gas heating industry. *(1)*

From a list compiled by thirty prominent men in the field of industrial psychology, the American Psychological Association presents these opinions: *(2)*

<table>
<thead>
<tr>
<th>Method</th>
<th>Valuable</th>
<th>No Value</th>
<th>Relative Weight in Selection of Applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Weighted Application Blank</td>
<td>100%</td>
<td>0</td>
<td>30%</td>
</tr>
<tr>
<td>or Personal History Form</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Patterned Interview</td>
<td>100%</td>
<td>0</td>
<td>38%</td>
</tr>
<tr>
<td>3. Psychological Tests</td>
<td>100%</td>
<td>0</td>
<td>30%</td>
</tr>
</tbody>
</table>

All the men included in the survey agreed that each of the methods must be administered by reasonably trained individuals.

The Industrial Tape Corporation of New Brunswick, New Jersey which manufactures a wide variety of tapes for industrial and commercial use has developed a sixty question sales aptitude test. The test was designed by

*(1)* Sales Management, Bryant Heater Offers Packaged Plan For Selecting Salesmen, July 1, 1945, pp. 134-138

*(2)* W. S. Allen, "Psychologists Answer Moot Questions About Aptitude Testing", Sales Management, April 1, 1945, pp. 73-4
company sales executives and the questions were based on questions found successful before, plus analysis of first-hand company selling situations. The salesmen of the company were first rated, and then took the initial tests. By weeding out questions which did not seem to be relevant to sales success, the company arrived at the present 60 test questions. The salesmanagers also filled out a check list of 100 traits about each salesman. This list was finally reduced to 20 positive and 20 negative traits to be rated during the interview. *(1)*

The Sales Manager's Bureau of the St. Louis Chamber of Commerce has set up a bureau to aid industry in discovering sales talent. Members of the bureau interview sales applicants, require personal history summaries, and a battery of tests. The tests include: The Strong Vocational Interest Blank, The Kuder Preference Record, Bernreuter's Personality Inventory, and The Otis Self-Administering Test of Mental Ability. The results of the tests and interviews are graphed into a "sales profile" for each man. *(2)*

The Liberty Mutual Insurance Company has printed a booklet entitled "Personnel Selection Plan" which outlines their selection methods. For sources of sales applicants, the company uses veteran's agencies, local newspaper advertising, colleges, and high-class employment agencies. Each man is given at least two interviews by more than one executive of the company. The interviews are patterned to amplify background characteristics (family, ambition, savings, etc.). A short-form application blank is used as a pre-interview screen, and after the interview with promising candidates, a "Supplementary Application for a Position as Sales Representative" is completed by the applicant. References are

*(2)* Sales Management, How St. Louis Pre-Tests Veterans For Sales Aptitude, April 15, 1946, p. 118-21
checked and a Retail Credit Report on each man is obtained. Psychological tests are given by the Klein Institute. Finally, an "Over-All Rating" is required from each executive who interviewed the applicant. Among other things, this rating sheet asks: Do you recommend him as a producer? If plenty of applicants were available, would you hire him or would you want to look further for a better man? The company states that each recommendation that a man be hired must come from a district manager, sales manager, or service manager -- and must be accompanied by the approval of the regional vice president. *(1)*

The Todd Company bases its selection methods upon a detailed study of the records of its present salesmen. The branch managers of the company were asked to rate their salesmen on a long list of personal traits. In an effort to determine what qualities of mind and personality were desirable, leading salesmen were asked to write job descriptions about their own selling methods. Aided by vocational - psychological counselors, the sales executives decided upon a test battery consisting of the Wonderlie Personnel Test for general intelligence, the Bernreuter and Adams-Lopley Tests for emotional traits, and the Kuder Test for vocational aptitudes and preferences. In total, the test battery contains about 1200 questions. A weighted interview taking from one to four hours and covering seventy-three questions is also given. To prepare the organization to handle these tools, Todd Company has given each of its 3k Branch Managers at least two weeks' training in the art of psychological probing. The recommendations of the Branch Managers are received by mail and reviewed by the Personnel Department. **Final selection is based 65% - 70% upon interviews, and 30% - 35% on tests. *(2)*


*(2)* G. L. Todd, "65% of the Men We Hire How Stick and Succeed", *Sales Management*, Dec. 1, 1947, pp. 94-104.
In a survey of large companies, D. J. Bolanovich reports the following findings: *(1)*

**Place of Selection**

- 26% of the companies select salesmen centrally
- 10% of the companies select salesmen at branches
- 64% of the companies use both central and local selection

**Selection Procedure**

- 85% of the companies use personal history blanks
- 70% of the companies use letters of recommendation
- 51% of the companies rely almost entirely on interviews
- 16% of the companies use rating scale for salesmen
- 11% of the companies use scientific tests

**Interviews**

- In only 10% of the companies does the head of the personnel department or employment office participate in the selection of salesmen.
- 8% use executives outside of the sales and personnel departments to interview prospective salesmen.
- 90% confine interviewing entirely to sales department.
- 26% use only one interviewer at headquarters; 28% use only one interviewer in local (branch) offices.
- 19% use two interviewers.
- 21% use three interviewers at headquarters, but less than 5% use three at local or branch offices.
- 15% use four or more interviewers.

These examples are typical of industry's interpretation of salesman-selection methods. In the next section, we will look in detail at the selection procedures utilized by several progressive industrial companies.

*(1) D. J. Bolanovich, "Salesman Selection in Sixty-Six Companies", Personnel, May 1944, pp. 369-71*
V. The Selection of Salesmen

by

The Armstrong Cork Company

1. A Sales Job With The Armstrong Cork Company

A. Sales Organization

From its start in 1860 in the manufacture of bottle corks, the Armstrong Cork Company has grown until its present yearly sales of $160,000,000 are realized from the sale of 360 products to buyers representative of all phases of industrial, commercial and community life. To handle this list of large and varied products in an expeditious manner, the company is organized along divisional lines. There are four principal operating Divisions -- Building Materials Division, Floor Division, Glass and Closure Division, and Industrial Division. Each of these selling divisions is under the direction of a Vice President and General Manager and is given full distribution responsibility in the domestic market for their own particular products. For all practical purposes, they operate as if they were separate companies and each has its own executives, market research department, promotion staff, and sales personnel. Each division determines the exact products it will sell, the new products needed to complete the line, which old products should be eliminated, what research is needed to develop new lines, what manufacturing policies will be needed to achieve its program, the price at which products will be sold, and many other sales and merchandising factors. The company's sales force numbers approximately 450 men who are strategically distributed in the district sales offices of each division. These offices are located in the large cities throughout the country.

B. Products, Plants, Channels of Distribution

To produce its varied lines, the company maintains 10 foreign
and 20 domestic manufacturing units. As indicated previously, each Sales Division has a separate product entity and therefore utilized its own methods of distribution.

The Building Materials Division sells a broad line of products used mainly in the building trades. These commodities include a complete line of insulating materials used in construction and in a wide variety of equipment; accoustical materials; wall tiles; a full line of lumber dealer products such as insulation board for interior finish, insulating wood, predecorated panel-boards; and sundries used in the application of these products. *(1) These products are distributed through lumber dealers and building supply houses, wholesalers, contractors; and in many cases, such as large insulating jobs, the products are sold direct and are installed by the company's own construction crews.

The Floor Division sells linoleum, resilient tiles, printed felt-base floor coverings, wall coverings, sundries and accessories which are used in the installation and maintenance of these products. All of these particular products are consumer goods, the majority of which are distributed through a carefully selected group of wholesalers and by approximately 30,000 retail outlets located throughout the country. *(2) Some are sold directly to flooring contractors.

The Glass and Closure Division sells glass containers for the packaging of foods, beverages, cosmetics; a general line of closures including all types of cork stoppers, metal and molded plastic caps and jar covers; crown caps; and secondary seals for drug and hospital supplies. These products find their way to users through varied channels. Some are sold through wholesale drug houses; others are sold direct to large users such as bottlers and food packers; some are marketed in

*(1) Armstrong Cork Company, Careers in Business, 1948
*(2) Ibid
certain areas through agents. *(1)

The products sold by the Industrial Division include a long list of specialties used by other manufacturers, such as spinning roll covers for the textile industry, bottom fillers and midsoling materials for the shoe industry, and gaskets for the automobile and other industries. *(2) In addition, wide varieties of industrial products made of cork composition and rubber composition are sold. Most of the Division's sales are made direct to manufacturers.

C. Characteristics of the Selling Job

Generally speaking, the Armstrong Cork Company's salesmen have their own exclusive territories in which a specific group of products are sold. These salesmen provide many services other than the actual selling required. Each division presents a unique sales problem and therefore requires unique sales ability.

Salesmen of the Building Materials Division are of two main types (1) sales engineers who mainly work with and sell to large users of industrial insulation materials (2) merchandising men who handle a varied line of building materials which they sell through wholesalers, dealers, and specialty contractors. Sales engineers call on architects, designers, plant owners and plant engineers to advise them on technical problems in connection with processing, installation, or use of materials. The merchandising salesman of the Division is primarily a merchandising consultant in conjunction with his selling. He calls on architects to explain the advantages of his products and he sells to lumber dealers, building materials dealers and contractors. In dealing with their wholesaler customers, the Armstrong salesmen are in close contact with these

*(1) Armstrong Cork Company, Careers in Business, 1948
*(2) Ibid
men, assisting them with their management problems, guiding the wholesaler's salesmen, and assisting with other merchandising problems.

The Floor Division salesman deals mainly with wholesales and retailers. He advises the wholesaler on management problems such as his advertising program, accounting procedure, budgetary control and warehousing methods. *(1) He also helps to train wholesaler's salesmen and arranges special training courses given by Armstrong. With his retailers, the Floor Division salesman performs similar functions, assisting with management, merchandising, and advertising problems. The services of the company to the retailer are conveyed by the salesmen and consist of store layouts, training in floor installation, display materials, and other features designed to maintain the close relationship between the company and its wholesale and retail distributors.

The selling of the Glass and Closure Division is a creative sales job that calls for technical ability and merchandising sense. For example, the salesman must be able to discuss with authority the affect of various closures and caps on taste and bacteriological effects on the enclosed products. He often works in close harmony with the company laboratory and the customer. He advises his accounts on packaging problems, layout of retail drug stores, effective display, and other merchandising problems. This salesman should be familiar with the relationship and aims of the pharmacy and medical professions.

The sales of the Industrial Division are made mainly direct to manufacturers who use the products on their own equipment or incorporate them in their own finished products. There are several types of Industrial Division Salesmen. *(2) First, those who sell mechanical specialties

*(1) Armstrong Cork Company, Careers in Business, 1948
*(2) Ibid
to industry in general. Second, those who concentrate on the textile industry. Third, salesmen specializing in sales to the shoe manufacturing industry. All of these salesmen call on small manufacturers and on key men in some of the largest firms in the country. Many of the contacts are with research men, engineers, production men, in addition to purchasing agents.

2. The Selection Philosophy of the Company

A. Evolution of the Present System

Since the Armstrong Cork Company was a pioneer in the recruiting and training of college graduates for careers in business its present highly developed methods are the result of numerous stages of constant refinement. It can be said, however, that for the development of selection methods the history of the company can be separated into three periods.

When the growth of the company, after its founding in 1860 by Thomas M. Armstrong, a young shipping clerk, necessitated the selection of personnel, a system of procuring help by individual supervisors evolved. The methods were entirely informal based mainly upon personal reactions to and knowledge of the applicants for jobs. During most of the period from 1860 to 1920, the company was relatively small and the need for more standardized selection methods was not pressing.

However, as the company expanded it became apparent that the varied and numerous personnel requirements had to have closer attention. Realizing this need in 1920, a divisional sales executive of the company, Mr. H. W. Prentis, Jr., (now President of the Company) laid the groundwork for a system of building manpower now used by many American Industrial corporations. Mr. Prentis began sending representatives into the field to contact colleges and universities for the purpose of interesting
outstanding young graduates in careers with Armstrong. This period of 1920 to 1937 included expansion of the activities of the Personnel Department in assisting with college recruitment. The large part of the recruiting, however, was done by the individual departments. Many of these departments sent their own representatives to the various schools seeking men for their own respective job openings.

The present phase of the Armstrong selection system can be considered as beginning in 1937. Today, the development, organization, and implementation of the selection program rests with the central Personnel Department of the company. Although the interviewing for selection is a group task, with personnel, sales, and operating executives all participating, it is the trained representatives of the Personnel Department who visit the various colleges and universities screening prospective candidates. The Company has found that this centralized control of selection and recruiting is more economical than the departmental or district office methods of finding salesmen, and that the system has also paid dividends in promoting company public relations.

B. The Career Idea

A quotation from one of the publications of the Armstrong Cork Company reads as follows:

"The balance sheet of the Company discloses only its tangible assets. An intangible asset of paramount importance is the quality, character, and ability of the Company's organization." *(1)*

To find such personnel is the primary purpose of the Armstrong selection system. But simply to locate men of high caliber is not enough to insure the success of a company. For this reason, Armstrong strongly emphasizes to new men the possibilities of a life career with the Company. As a

*(1)* Armstrong Cork Company, *Partners in Business*, 1948
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natural result, the individual embracing this concept realizes that his
future is a joint investment with the future of the Company.

Throughout

the organization, men charged with the responsibility for selection are

urged to think of the applicants in terms of their value as potential
life employees.

*-(l)

The career principle is a hollow phrase unless it is carried

into effect.

An active incentive for personal achievement must be sup-

plied, and there must be adequate opportunity for the full development

of the salesman's abilities and talents.

For this reason, Armstrong rec-

ognizes two fundamental obligations of management.

First, that all po-

sitions of responsibility must be filled by promotion from within the
organization; and second, promotion must be based solely upon performance, ability, and qualification for the job.

-*(2)

Each new man is en-

couraged to understand that his progress in the organization is largely

up to him, and that his work should not be considered as just a job,
but rather as a part of his life.

That this policy of a "Career

./ith

Armstrong" is working can be substantiated by the very low (as compared

with the average) turnover in the sales units.

In addition, there are

very few exceptions to the statement that the present Armstrong executives have developed over the years with the company and will someday
be superceded by the men presently selecting careers with Armstrong.

3.

The College Recruiting Program

A.

Scope of the Program

In seeking applicants for sales positions a company can direct

its attention to older experienced salesmen, men engaged in related lines

* (1) National Industrial Conference Board, Inc., Sales Training Survey of
the Armstrong Cork Company , Studies in Personnel Policy No. 22
* (2) G. C. Denebrink, Career ken in Industry , American Management Association Marketing Series No. 3 9 , p. 17.
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of business endeavor or it can concentrate on young college graduates. The Armstrong Cork Company prefers, in general, to do the latter and with few exceptions its sales force is recruited each year from the colleges and universities throughout the United States. There are occasions, however, when men in other departments of the company have been moved to sales positions. In addition, occasional need arises for technical men experienced in some particular specialty, in which case the services of a few selected employment agencies which have proved valuable in the past are secured.

For purposes of obtaining geographic distribution throughout the country and to ensure that the best possible candidates are reached, the company has divided the United States into five geographic regions to facilitate national coverage by its Personnel representatives. These divisions are: the Far West, the Mid-West and Rocky Mountains, Southern New York, New England, and the Middle Atlantic States. The intensive program of interviewing and selection conducted by the Personnel Department usually extends from January to April, with the new class of salesmen selected in full not later than May 15th.

During the Fall months, a National College Recruiting Itinerary is formulated and definite assignments are made to each of the three Personnel Department representatives who will conduct the college interviews. At the present time, over 60 colleges and universities will be visited and interviews in excess of 2000 will be held with prospective graduating seniors. Even with this comprehensive college coverage it is impossible to make personal visits to all interested schools. Therefore, the company also writes to approximately ten schools which they are unable to visit soliciting letters of application. In addition, letters of application are encouraged from any institution not visited. A typical roster of the colleges represented each year by salesmen selected by Armstrong is this
list of the 1947 class affiliations. Each college or university listed represents at least one man selected as a sales trainee by the company. *(1)*

**Building Materials Division**

- Bucknell University
- Northwestern University
- University of Pennsylvania
- Syracuse University
- Alabama Polytechnic Institute
- Massachusetts Institute of Technology
- Pomona College
- Rutgers University
- University of California - Los Angeles
- Stanford University
- University of California - Berkeley
- Rensselaer Polytechnic Institute
- Franklin and Marshall College

**Floor Division**

- Grinnel College
- University of Michigan
- Rutgers University
- Indiana University
- University of Colorado
- Ohio State University
- Dickinson College
- University of Pennsylvania
- University of Nebraska
- Grove City College
- Oklahoma University

**Glass and Closure Division**

- University of Illinois
- Pomona College
- University of Kansas
- Franklin and Marshall College
- Grinnel College
- University of California - Berkeley
- University of Delaware
- University of Denver

**Industrial Division**

- Pennsylvania State College
- Cornell University

B. Attributes Desired in the Sales Applicant

If a general statement can be made about the qualifications of a sales trainee desired by Armstrong, it is that the Company is primarily interested in the man who is in the top one-quarter or one-third of his class and who has assumed leadership in extra-curricular activities. *(1) One of the executives of the company has stated: *(2)

"Selecting a salesman is somewhat more involved than selecting accountants, engineers, chemists or others where emphasis can be placed on actual training and experience or knowledge of the subject. More reliance must be placed on personal appraisal. The more who participate, the broader the agreement and the wiser the decision."

According to the company, each of their sales divisions represents an individual problem and set of circumstances and, correspondingly, each sales job requires unique ability of some kind. Even the products within the division differ in the training needed to promote their effective sale. Some are technical and require an engineering background for their intelligent promotion, and others do not need this particular specialized background.

In selecting salesmen for any of its divisions, the Company is, in effect, seeking men who possess similar qualities to those belonging to Armstrong Salesmen who are and have been successful. Conversely, every attempt is made to avoid selecting men possessing those qualities which from experience have led to unsatisfactory sales results. The best indication of what the company considers desirable in a sales applicant has been expressed by Mr. J. E. Smith, Employment Supervisor. *(3)

*(2) J. E. Smith, Employment Supervisor, Armstrong Cork Company
*(3) J. E. Smith, Effective Methods of Selecting Salesmen, Ohio State University Publications, College of Commerce Conference Series - Number C-30
There are three "first-impression" qualifications:

1. A vigorous appearance is desirable and good health is an essential.

2. A candidate should have a neat, not flashy appearance. 'Good looks' are by no means essential, but the candidate should have a personality which in some way commands immediate attention. Nevertheless, a commanding personality without a record of accomplishment is not attractive.

3. The candidate should have a good speaking voice.

We cannot place too much importance on these three qualifications, for first impressions are usually lasting impressions. There are six additional qualifications on which we place equal emphasis:

1. Education - Except for jobs requiring specific technical training, the course studied is unimportant. We are interested primarily in whether the candidate has been taught to think problems through logically and clearly and whether he has the ability to reach a satisfactory conclusion. We must make certain, nevertheless, that he has a good command of the English language and is able to spell. The breadth of a candidate's vocational interests can be spotted sometimes in educational likes and dislikes.

2. Earnings for School Expenses - We are quite interested in men who have worked all or a part of their way through school. We have found that this type of candidate gains valuable practical experience, certainly demonstrates ambition, initiative, self reliance, and knows the value of a dollar. He usually has confidence, cannot be discouraged easily, and has a more mature attitude toward job procurement and business in general. He views life somewhat more seriously than the student who has been given everything during his college career.

3. Leadership - Is the candidate a leader? Participation in extra-curricular activities is very important to us. Is the candidate sufficiently interested and well-rounded to go beyond the scope of his
books in order to obtain a well-rounded education? The ability to get along with fellow men and to gain their respect is essential. Whether a man's interests are in athletics, fraternities, church or welfare work, campus politics, dramatics, or publications is not important to us. Our chief interest is in whether he has the ability to be a leader. Along with this we are interested in his hobbies, since at times these are indicative of interests, versatility, ambition, and ability to lead.

4. Character - Good character is naturally a most essential quality. The school record, with faculty impressions and recommendations, should show readiness to accept responsibility and give an indication of the candidate's reputation on the campus. Self-reliance without conceit and real initiative coupled with tact are very desirable. Is the man a church member and does he participate with a fair degree of regularity? In many cases, we have found this to be quite indicative of good character.

5. Family and Social Background - In considering family and social background, our purposes might easily be misconstrued; however, we have obtained some clues from this as to the individual's possibility of success.

6. College Grades - Finally, we face the controversial subject of college grades; here I should like to point out that I am referring particularly to sales candidates. During the years immediately preceding the war, industrial concerns tended to emphasize scholastic attainments. But, in our case, although there is a general feeling that an outstanding man should be in the first quarter of his class, we are not looking for this type if his scholastic standing has been obtained at the expense of a balance between outside work, social life, and leadership and development activities. I might mention here that in the larger group of average or above-average students some have considerably more to offer than some of those who are in the upper one-tenth or so of the class. If the student who is average scholastically is given the proper encouragement and assistance in developing his own line of interest, he will approach a top rating in his "field"
In addition to the qualifications indicated previously which are applicable to all sales trainees regardless of sales division, there are some specific requirements for each division. The educational backgrounds prescribed are:

Floor Division, Glass and Closure Division - Degrees of Business Administration, Liberal Arts, or Economics acceptable.

Industrial Division - Non-technical training acceptable with some Engineering preferred. Engineering graduates are acceptable.

Building Materials Division - (1) Industrial Insulation Sales - Technical training required. (2) Dealer Products - Non-Technical training preferred.

In conjunction with the specific educational backgrounds desired for the different divisions, there are also certain other intangible considerations necessitated by the personality relationships of the division, the type of customer-contacts required, and knowledge of the qualities possessed by present salesmen which must be kept constantly in mind by the selection personnel. According to one of the men responsible for selection, these differences are so delicate in character that knowledge of them can be obtained only by repeated contacts with the personnel of the divisions and by hundreds of comparisons of prospective sales candidates.

C. Methods and Tools Used in the College Recruiting Program

The organization and implementation of the college recruiting program is a year-long process and careful plans must be formulated well in advance of the actual recruiting trips. The company budgets, including the personnel required by the various sales divisions, are prepared during the Fall months. Early in December, the Personnel Department conducts a meeting of all divisional department and divisional chiefs and all details of the sales candidate requirements (such as marital status, age,
etc.) are determined. Then, detailed letters describing Armstrong's position openings and specifying the requirements desired are sent to all the schools to be visited. These letters contain such information as the specific divisions seeking trainees, type of background desired, salaries, starting time of training class, housing of trainees, and many other items of interest to the school Placement Bureaus. A mimeographed sheet describing the details of the times of arrival and departure of the company representatives, the time interval desired for each interview, request for scheduling a group meeting of interested candidates, and other pertinent facts accompanies each letter. At the same time, supplies of literature descriptive of the Company's operations, the sales training program, and the opportunities for a career with the Armstrong Cork Company are sent to the college and university Placement Bureaus. In order that the interviewer will have an additional guide with which to direct the interview, preliminary application blanks for completion by interested candidates are also sent to the schools. (This form is shown in Figure 7.) The members of the previous year's class now associated with the Company are also requested to submit the names and recommendations of any men in their respective schools whom they think would be good Armstrong salesmen. It is thought that this recent class still has acquaintances in school who place considerable emphasis upon the choice of their older classmates in selecting a career. This, then, provides an additional medium for locating promising men.

In January, the trained representatives of the Personnel Department start their visits to the colleges and universities. Their itinerary includes the development of one section of the country at a time, with two interviewers generally remaining at a school for one or two days depending upon the size of the institution. In most cases,
### INTERVIEW RECORD

<table>
<thead>
<tr>
<th>SCHOOL ADDRESS</th>
<th>HOMETOWN</th>
<th>SCHOOL YR.</th>
<th>GRAD. (HIGH SCHOOL)</th>
<th>(COLLEGE)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Religion</th>
<th>How Long</th>
<th>No. of Children</th>
<th>Engaged</th>
<th>Plan to Be</th>
<th>When</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Father's Occupation</th>
<th>Veteran of World War II</th>
<th>Length of Service</th>
<th>Rank</th>
<th>Discharge Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>SCHOLARSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
</tr>
<tr>
<td>How Many Years</td>
</tr>
<tr>
<td>Scholarship Award</td>
</tr>
<tr>
<td>College Scholastic Average</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Courses Enjoyed Most</th>
<th>Why</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses Enjoyed Least</td>
<td>Why</td>
</tr>
</tbody>
</table>

### EXTRA-CURRICULAR ACTIVITIES

<table>
<thead>
<tr>
<th>Fraternity</th>
<th>Fraternity Officer</th>
<th>Honorary Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics</td>
<td>Social Organizations</td>
<td></td>
</tr>
<tr>
<td>Publications</td>
<td>Dramatic or Debating Experience</td>
<td></td>
</tr>
</tbody>
</table>

### WORK EXPERIENCE

<table>
<thead>
<tr>
<th>Scholarship Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work Expenses Earned During College</th>
<th>Higher Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>What and Where</td>
<td></td>
</tr>
</tbody>
</table>

### HOBBIES AND OUTSIDE INTERESTS

### LOCATION CHOICE

<table>
<thead>
<tr>
<th>Figure 7</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>OCCUPATIONAL CHOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why do you make this occupational choice</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>Intelligence</td>
</tr>
<tr>
<td>Ability to Talk</td>
</tr>
<tr>
<td>Poise</td>
</tr>
<tr>
<td>Maturity</td>
</tr>
<tr>
<td>Courtesy</td>
</tr>
<tr>
<td>Personality</td>
</tr>
<tr>
<td>Appearance</td>
</tr>
</tbody>
</table>

**TYPE OF PERSONALITY**

For what type of work is he best suited

Whom in this organization is he most like

**RECOMMENDATION**

Eliminate from consideration

Given an application blank

Classification

**REMARKS:**

Interviewed

By _____________________________

At _____________________________

Date ___________________________
the Placement Bureaus have screened the candidates in accordance with the requirements specified in the letters previously sent by the Company. Supplementary college information (such as the candidate's confidential information folder and the college Placement office registration form) are made available to the interviewer and are included with the preliminary application blank filled out by the candidate. Between interviews, and at the noon hour, luncheon is eaten with faculty members (preferably department heads) to obtain further background information about the candidates. After further perusal of all the information obtainable, (including the interview rating of the candidate on the reverse side of the preliminary application blank - Figure 7) another check is made with department heads regarding men in whom Armstrong is specifically interested. Before leaving the campus, the representative leaves formal salary applications (Figure 8) for a few men in whom the Company is definitely interested. The names of these men are then listed on a National Master List by geographic areas, by schools, and by departments within the company.

IV. Basis For Final Selection

On return to Lancaster, Pennsylvania (the home office of the company) from each regional trip, Personnel Executives review the Master List with the Placement office material attached. A reasonable time is allowed for the formal salary applications left with the candidates at the schools to be received in Lancaster. In the event that the application blank is not returned, the applicant is immediately dropped from consideration. The records of a selected group of applicants are then received by the Employment Manager, the respective department heads and division chiefs, and the recruiters. Approximately two men for each position-opening are
# APPLICATION FOR EMPLOYMENT

with

**ARMSTRONG CORK COMPANY**

**Name**  
_Last_ (Last)  
_First_ (First)  
_(Middle)_ (Middle)  
_Telephone_ (Telephone)

**Address**  
_(Street and number)_ (Street and number)  
_(City)_ (City)  
_(State)_ (State)

**Applying for position as**  

**Previous Experience (Including Military Service, Vacation and Temporary Employment)**

<table>
<thead>
<tr>
<th>Name and address of Employer</th>
<th>Position held</th>
<th>From</th>
<th>To</th>
<th>Reason for leaving</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

Do you wish temporary or permanent employment?

Have you ever made application to the Armstrong Cork Company before?

If so, when?  
Where?

If now employed, why do you wish to make a change?

Reason for wanting to become associated with Armstrong Cork Company?

What salary do you expect monthly?

---

*Figure 8*
EDUCATION

<table>
<thead>
<tr>
<th>Education</th>
<th>Name of School</th>
<th>Number of Years</th>
<th>Year of Graduation</th>
<th>Course Taken</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College or University</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correspondence Course</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Special</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How well do you speak, read or write any foreign languages?

Give three personal references:

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Business or Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When was Photo taken?
Date of birth? .................................................. U. S. citizen?

Height? ......................................................... Weight?


Number of children? ......................... If single, are you engaged to be married? .......... When?

Have you any dependents other than children? .......... Relationship?

Number of brothers? ..................................... Number of sisters?

Have you any physical disability, or chronic ill health? .............

If so, what? ..................................................

Note: A physical examination by the Armstrong Cork Company Physician is required before permanent employment will be arranged.

Name any of your relations employed by the Armstrong Cork Company—

Name any of your friends employed by the Armstrong Cork Company—

In what group activities or hobbies do you participate (not school) and any leading part you have taken?

Please list below additional information about your experience, background, interests, etc., not covered by specific questions which you feel will be of assistance in completing your full record.
Have you a preference for any particular division of the company?
If so, which one?
Why?

If employed, would you have any preference as to the location of your assignment?
Would you willingly go to any section of this country?
How soon could you report for work?

List duties of former positions which you consider important:

State briefly your reasons for desiring the particular work for which you are applying:

If you failed to get your college degree state why.
Where did you rank in your class scholastically?
List any of the following college activities in which you were successful:

Athletics?
School publications?
Music, drama, debating, etc.?
Class or Club offices?
Fraternities?
Honorary organizations?

What proportion of your college expenses did you earn yourself?
How was this earned?

Are you in debt? To what extent?

Social Security No. Signature
then invited to come to Lancaster at company expense to acquaint themselves more thoroughly with the Armstrong Cork Company and to be interviewed by the executives of the particular division for which the candidate is applying.

The visit to Lancaster by the candidates is made in small groups or individually, depending primarily upon the arrangement of a mutually advantageous time between the company and the man. Every effort is made to receive the applicant cordially and plan his activities for the day so that maximum benefit to the man and to the company may be obtained. Usually, a guided tour of the company offices and plants in Lancaster is made, providing the visitor with an opportunity to ask questions and further orient himself with respect to the company. Following this, the applicant has interviews with as many of the division's executives and commodity managers as possible, as well as with several of the staff executives who have had long experience in judging candidates and who are keenly interested in the selection of the right types of man. *(1)  Each executive uses the rating form shown in Figure 9 (other divisions of the company use substantially identical forms) to record his impressions of the candidate's capabilities. These forms are then sent to the manager of the promotion and sales training department. Later, these rating sheets will be used as a major basis for deciding whether a candidate will be offered a position with the company. *(2)  The number of interviews given to each candidate depends upon the time available and the particular departmental organization. Thus, the number of interviews may vary from four to nine. Armstrong's selection system maintains its primary reliance upon the multiple interview as a means of best determining the applicant's qualifications for the job. Since the program has

*(1) J. E. Smith, Effective Methods of Selecting Salesmen, Ohio State University Publications, College of Commerce Conference Series - Number C-30

*(2) S. Poliak, Rebuilding the Sales Staff, New York, 1947, p. 68
Name of Applicant

Items specifically checked during interview:
(List others discussed below)

- APPEARANCE
  Considered from sales standpoint
- COURTESY
  General manner
- SPEECH
  Vocabulary, tone, clarity
- INTELLIGENCE
  Grasp of subjects, common sense, alertness
- ATTITUDE
  Optimist or pessimist, friendly, general enthusiasm, aggressiveness
- SALES PERSONALITY
  Direct effect on you as sales possibility

RATING:

<table>
<thead>
<tr>
<th></th>
<th>Exceptional</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Poor</th>
</tr>
</thead>
</table>

COMMENTS: (Any facts to be given special consideration)

ISION:

- Outstanding prospect for Industrial Sales Specialist Dealer
- Above average prospect for Industrial Sales Specialist Dealer
- Average prospect for Industrial Sales Specialist Dealer
- No interest

Of what man now in Building Materials Division does he remind you? (Name)

In your opinion, how far will this man have progressed five years from now?

Signed

Date

Figure 9
been in effect for about twenty-five years, the executives in each department have come to realize by reason of experience the type of man who is annually sought.

While it is the Personnel Department's responsibility to make the primary selection of candidates, it is the prerogative of the sales department to make the final selection. *(1) However, the division executives report that the candidates brought in offer an opportunity for a sound choice. They attribute the success of the method to the ability of the Personnel Department to select men capable of a specific type of work and with personal characteristics that make it possible for them to work harmoniously with the rest of the Division's personnel. *(2) Within several days after each man's visit, his records are reviewed by all persons concerned. Unless there is complete agreement by the sales division, staff executives, and personnel department, the applicant is not offered a position. In the event that the conclusion is unanimous and enthusiastic, letters of offer with copies to the respective college or university placement bureaus are written by the Personnel Department to the candidates. This procedure is repeated for each of the five regional sections of the country. The new training class, made up of the men who have just been carefully selected, is completed by not later than May 15th. They report as a class on the first Monday after the Fourth of July.

Although this system of bringing men at Company expense to Lancaster is expensive, the company feels that the effort is beneficial both to them and to the candidates. The new graduate is about to choose a career and his decision is even more important to him than his selection is to the company. In addition, a man who is not fully satisfied

*(1) J. E. Smith, *op. cit.*, p. 6
with his work will be a poor producer and may necessitate the costly selection and training of a replacement. Company executives report that the large investment of money and time in its selection procedure has been justified by experience. Although the expense of selection and training is not distributed individually here, it has been estimated that the total cost of these two functions is four or five thousand dollars per trainee. This expenditure has become a sound investment because the selection procedure utilized by the company has resulted in a very low rate of turnover of sales personnel. A further indication of the success of the program is the fact that many of the present executives of the company began their careers in a similar Armstrong selection and training program. Lastly, the continual growth of the company and its reputation as a leader in its industry can be attributed in large part to the successful efforts of a fine sales force which was obtained only through careful selection.
VI. Author's Commentary - The Armstrong Cork
System of Selecting Salesmen

The foundation of the Armstrong Cork Company system of selecting and training salesmen rests upon the realization that the company's selling job requires a high-type, high quality individual with a good educational background on the college level. To obtain this select man the company has devoted considerable time, money, and skilled manpower to its selection operations. This concentrated effort which is made possible by the decision that financial outlay in obtaining good men at the beginning will produce dividends for the over-all picture of the company's activities, has established selection methods of broad scope and recognized leadership among procedures now utilized by leading industrial firms. This does not mean that this system cannot be improved or does not have faults, but based upon the present standards of sales-man selection it has had a good measure of success.

Since their program is broad in scope with an underlying philosophy which regards salesman-selection as a specialized operation rather than "a necessary evil", Armstrong's decision to use centralized recruiting for all divisions of the company is a good one from several standpoints. First, in bringing the responsibility for selection in from the branch and district offices to the home office in Lancaster, maximum opportunity has been afforded to standardize methods and procedures and give each candidate an "equal hearing" with the company. When interviewing or hiring is done at the branch or district office, personal bias, inexpert tactics in interviewing, and lack of sufficient time devoted to selection generally are evident. In addition, the candidate gets only a very limited view of what the company as a whole has to offer him. Some interesting statistics concerning procedures used by representative companies are the following.
obtained from a study made several years ago: *(1)

Place of Selection

25% of the companies select salesmen centrally.
10% of the companies select salesmen at branches.
65% of the companies use both central and local selection, depending upon needs, type of man selected.

Usually, the sales managers and salesmen in the field are too busy with operating problems to devote much time to conscientiously studying and evaluating the background and sales attributes of new men. The General Personnel Department, however, includes this duty as one of their major functions in the company. The men in the Personnel Department are experts in their field, have considerable experience in interviewing job applicants and in procedures for evaluating background and abilities, and also possess the mechanical facilities for accomplishing the hiring of men.

A second feature of centralized recruiting by Armstrong is the time saved for executives of the company in enlisting their aid in selection procedures only after the most promising candidates have been screened and made available for final opinions and judgements of the divisional, staff, and department chiefs. This allows these executives to devote a reasonable time to several good candidates rather than a few brief words to a multitude of mediocre applicants who will later be dropped from consideration for one reason or another. The interest and enthusiasm of the executives is maintained at a high pitch because the interview contacts are usually interesting, and later prove rewarding in the final allocation of job offers. To date, the Personnel Department has been able to cooperate so closely with sales executives that it is extremely rare when a man invited to Lancaster by the Personnel Department is rejected as a misfit by a division or department head.

*(1) D. J. Bolanovich, American Management Association, Personnel, May 1944.
A third benefit accruing from centralized recruiting is the minimizing of selection expenses. Under a system of decentralized recruiting where branches, divisions, or individual departments undertake to recruit men for their own openings a considerable duplication of traveling expenses and "hidden overhead" occurs. Several, or even more, representatives may visit the same school thus increasing costs of travel, taking the recruiter away from his regular job, and resulting in confusion and uncoordinated contact with the placement bureaus of the school. Conversely, if several personable, efficient, and cooperative representatives contact placement offices regularly, a very excellent aid in recruiting men can be established. Cordial relations with colleges and universities is a form of advertising and company-salesmanship, and often leads school personnel to recommend the company to leading graduates, and vice versa. Centralized recruiting, therefore, is not only economical but also can be used as a public relations contact.

In concentrating upon college graduates as a source of new salesmen, Armstrong has emphasized the "Career Idea" in a position with the company. The other main sources of salesmen have been largely ignored. However, most of these other sources have distinct disadvantages and if satisfactory salesmen for this company can be obtained by college recruiting, this seems to be a good course to follow. Promotion from within the company has a distinct advantageous morale effect on present employees and leads to a feeling of increased security because of the lack of frequent turnover of men replaced by outsiders. College graduates also regard the idea of a career with the right company as advantageous because they are in the position of beginning their life's work and may associate "on the ground floor", so to speak, with almost any company hiring men with their particular abilities and attributes.
In some instances, the securing of experienced men from outside sources is advantageous, but more often than not, distinct disadvantages are present. For example, if competitor's salesmen are considered as applicants for your company, the displeasure of the trade or industry may be incurred even though the salesman himself has made the first overture. In addition, if the salesman was dissatisfied with his former position, he may later leave your company just as quickly. Another outside source of salesmen appears in the recommendations of customers, purchasing departments of manufacturing concerns, and other salesmen. In each of these cases, the problem of discovering how much of the recommendation is based upon personal likes, bias, and prejudice and how much refers to the man's ability and usefulness in your business becomes apparent. Generally, men from outside sources need re-training concerning your products and policies. In fact, very often these men have established habits and patterns which would be detrimental to their successful operation in your business, and which may be difficult and even impossible for you to change. Other factors being comparatively equal, it would appear that young men taken into the organization and trained in its methods and policies (if they are sound) are a good source of salesmen. Also, by the use of this source many of the disadvantages inherent in other outside sources are avoided.

By national coverage in their recruiting trips, the members of the General Personnel Department delegated to this responsibility are affording the maximum opportunity for the company to find the best possible man for a sales position-opening. Although it is impossible to visit every school with potentially good salesmen, Armstrong has visited a very good cross-section of the colleges and universities generally considered to be the first class. Actual interviews held at 60 schools annually should
afford ample opportunity to talk with outstanding seniors. For a final selection of fifty or sixty salesmen each year, over two thousand interviews are held with men who frequently have already been partially screened by placement bureau personnel at the schools. It can certainly be said that in quantity and quality, the company has an excellent sample of the college men graduating throughout the country.

The division of the country into five recruiting districts and the attempt to award positions to men in each of these districts is advantageous to a company with sales offices in most of the leading cities in the country. After these men finish training and are ready for assignment to branch and district offices, it becomes a logical and desirable move to assign them to the section of the country from which they come. The salesmen generally request this "home" assignment and every effort is made to satisfy this desire. In addition to being satisfactory to the salesmen the placement of men in familiar territory has distinct advantages to the company. These men are familiar with local weather conditions, customs, types of people, transportation facilities, and generally are able to adapt themselves more easily to happy, productive living and working in familiar surroundings where they want to be.

In setting standards for determining a "desirable" candidate, Armstrong has adopted a wise position between scholastic attainment and extra-curricular activity. Unless it has been definitely proved and validated, a company should not proceed in their selection programs under the assumption that only men with high grades will be successful with the organization. The results of such tests as have been made in an attempt to discover a correlation between high intelligence and good selling ability are so conflicting that no generalization can be made. Extra-curricular activities, however, are an indication of interests which may definitely be advantageous in selling. An interest in other people and their problems,
regard of others for the candidate as a leader as evidenced by any offices held in organizations, and willingness to give a little "extra" effort for which there is no tangible reward are indicated by the record of extracurricular participation.

Although the company does specify certain definite technical requirements for certain sales positions in several of their divisions, there is no use made of formal job descriptions or specifications in the selection process. This company does possess an advantage not accruing to the average company in that its executives and selection personnel have been associated with the company for long periods of time and are thoroughly familiar with the sales jobs for which applicants are being sought. Then too, the hiring of college graduates pre-supposes that the new men will be given complete training "from the ground up" in the duties which they are to perform. Still, it would seem wise to have definite job analyses in written form against which to compare the attributes possessed by the candidate. In addition, any sales manager who has preserved the Application Blanks or Personal History Records of all men hired, can make a study of the personal history factors of the men who survived as successes, and those who fell by the wayside as failures. *(l) This guide to selection may indicate some quality or qualities necessary for the proper conduct of the duties of the position, which the applicant who has otherwise favorably impressed the company, lacks.

In implementing their college recruiting program, the Personnel Department makes good use of the facilities offered by the school placement bureaus. These bureaus are generally very helpful in screening candidates on the basis of their expressed desires and educational backgrounds

to the proper job opportunity, thus saving much of the company-representative's valuable time in performing the same operation. In order to secure this help, however, the company must supply (as Armstrong does) the placement bureaus with full information concerning the position openings, the backgrounds necessary for the job, the type of man desired, the training offered, the area in which the salesman will work, the starting salary, and other factors concerning the job. The average college graduate has had little or no contact with industry. His only knowledge must come from his family, friends, and classmates, but mainly he will find his greatest source of information to be the placement bureau. It is, therefore, good business for companies to furnish attractive booklets describing their own particular job opportunities and productive and distributive activities. This literature should be profusely illustrated and written with the viewpoint of a young man weighing the advantages of various careers kept constantly in mind. Just as it can be said that the company gains its first impression of the student at the placement bureau, so, too, the student forms his opinions of the company at the same time.

Utilization of the information about graduating seniors supplied by faculty members and placement personnel is helpful provided the reliability of the source has been established. The information is only as good as the supplier, and every effort should be made to talk with each man desirous of having an interview. This should minimize the possibility of allowing some individual's personal bias from denying a good candidate the opportunity of being considered for a position. It is also a wise idea to request that the college placement director make available all pertinent data which he may have in his file. Usually this data includes personal recommendations from friends, businessmen, temporary employers and others who have known the man during or prior to his college work.
Although it can be said that bringing from all parts of the country several of the most promising applicants for each job-opening to the home office is extremely expensive, it is a very essential part of the centralized recruiting system. It is very necessary and desirable that the executives of the company responsible for the results these new men accomplish as salesmen later on, have the opportunity to interview and size up the applicants. Here, the company uses a standardized interview form (Fig. 9) to guide the conversation and secure the necessary facts. The standard form not only insures that each candidate will be measured by the same standards, but the form also prevents the executive who is not an expert interviewer from spending twenty or twenty-five minutes with the personable young man, discovering that he shoots golf in the low 80's and lived in Deerfield, too, in 1932! An interview of the type just described lends very little knowledge of a man's background, experience, education and abilities. The standard interview helps to reduce three weaknesses generally present in the holding of interviews. *1(1) First, the interviewer rarely knows what questions to ask. Second, the person conducting the interview rarely knows how to interpret what he has found. He assembles information about the applicant but does not know what it means. The third weakness of the interview is found in the biases or unsound standards of the interviewer himself.

During the home office visit, allowance is made for as many interviews as possible. This allows more executives to take part in the selection process and insures that there will be sufficient first hand information available upon which to base a discussion of the candidates. Within a day or two after their visit (while the contact is still fresh in everyone's mind), each candidate is thoroughly discussed by all with

whom he has had interviews. The result of these interviews must be complete agreement before a job offer is made. This procedure has brought a maximum number of the most experienced company men into active participation in the selection process, and should assist greatly in getting good prospective salesmen.

Armstrong pursues a wise policy in being extremely careful in their selection procedures and hiring only enough men to fill the actual job openings in the company. It has been fairly common practice - and still is - for some companies to hire more men than they need with the idea of eliminating some after a brief period. This practice generally occurs in companies hiring a lower grade salesman than herein described. This procedure is in reality costly because of the money wasted on the rejected candidates in their selection and training, however brief it may be. This method of treatment of salesmen certainly cannot lend any support to the prestige of the company or the morale of its present sales force.

With the exception of the procurement of some highly specialized technician for a unique sales job, it appears unnecessary to use standard employment agencies for this purpose. These agencies usually charge a commission which is a percentage of the salary of the job to be filled. For this reason, it is possible that the tendency would be toward "quantity" procurement rather than "quality" procurement. In addition, the agency necessarily is very often unfamiliar with the company policies, products, and essentials of the sales job. However, in order to use one's own methods, it is necessary to have a well organized selection process. In the event the company is not this fortunate, the chances of securing acceptable salesmen may be better with an organization which is equipped to do interviewing, testing, and placement.
In general, Armstrong hires sales candidates at only one time of the year, to begin work in July. This procedure might cause the company to miss a good man who must find employment at some other time of the year, and who cannot wait for July employment. This phenomenon has assumed added significance in recent years since World War II, when many college classes are graduating at odd times during the year because of accelerated programs and varying curricula of students. Perhaps the cost of hiring these men and allowing them to get experience in some phase of selling, or establishing training classes twice a year (say, in January and July) would be prohibitive, but these are factors which it might be worthwhile to consider.

In summing up the methods used by the Armstrong Cork Company, we find a system which utilizes maximum placement bureau assistance, application blanks, standardized interviews, multiple executive participation, national coverage, centralized recruiting, and home office visits by candidates. No attempt is made to use psychological, ability, or aptitude tests. The company has been a leader in the known methods of selection, and according to their own executives, have enjoyed the "proof of the pudding" in experiencing very limited turnover in their sales personnel.
VII. The Selection of Salesmen by the Apparatus Department of the General Electric Company

Introduction

The procurement of sales personnel by the Apparatus Department of the General Electric Company is a relatively long, continuous, and selective process of manpower placement. The program presents the combined use of numerous "hurdles" or standard-measures of sales aptitude which must be satisfactorily surmounted for selection as a salesman. The philosophy of combined use of selection tools is stressed, and no one analysis is considered to be the criteria for sales proficiency. As we will see, the underlying tenet of the program is that in the personnel field, selection and training are actually two inseparable phases of a single process. That the system falls short of being absolute in its selection of salesmen is readily admitted by those who operate it. However, the realization of the limitations existing in personnel selection and placement has undoubtedly contributed to the successful utilization by the Apparatus Department of multiple standards in evaluating sales talent.

I. Industrial Sales With The Apparatus Department

A. The Sales Organization of the Apparatus Department

The activities of the General Electric Company fall into six distinct fields, and this is reflected in the present organization which is divided into six operating departments. *(1) Each designs, manufactures, and sells a different type of equipment. These departmental subdivisions are: (1) The Air Conditioning Department (2) The Appliance and

Merchandise Department (3) The Chemical Department (4) The Electronics Department (5) The Lamp Department (6) The Apparatus Department.

It is with the last of these departments, The Apparatus Department, that we are here concerned. This department is responsible for roughly 55% of the Company's annual sales, and for all practical purposes, sells exclusively in the industrial market. A glance at the organization chart of the Apparatus Department (Figure 10) will assist measurably in understanding the functions of the sales organization.

The Apparatus Department is really the equivalent of many separate companies, each responsible for the engineering, manufacturing, and selling of a specific line of products. *(1) Each of the 16 (only 15 are shown on the chart) Product Divisions (Control, Frac. H.P. Motor, etc.) has a manager of sales who reports directly to the general manager of that division, and who reports functionally to the General Sales Organization headed by Mr. C. H. Lang, a vice-president of the Company. Among the responsibilities of this manager of sales is that of coordinating the manufacturing, engineering, and selling efforts of his commodity. Each of the 16 product lines may be produced at a single manufacturing center, or may receive some or all of its component parts from several of the Works Service Divisions.

The General Office Industry Divisions (shown as the Headquarters Divisions on the chart) are primarily the headquarters clearing-house and coordinators of District Office Industry operations. Their principal functions are to: *(2)

(a) Help the districts in any needed way in promoting and successfully handling projects.

(b) Co-ordinate the handling and servicing of customers.

(c) Direct and co-ordinate national promotion of an industry nature.

(d) Furnish information and advice on industry trends and requirements to the product businesses.

The sales portion of the Headquarters Division is further broken down into Aircraft, Federal and Marine; Industrial (equipment going to manufacturers, industrial applications); Central Station (the municipal power plants, public utilities); and transportation.

Another Headquarters Division is the Application, Service and Construction Engineering. Considered separately, each has the following functions:

(a) Application Engineering Divisions - are the intermediary between the design and sales functions. This group analyzes, selects, and recommends various combinations of products to meet specific requirements of a customer; and develop new applications or specifications for new products.

(b) The Construction Engineering Division - Fundamentally, the Division operates as a practical extension of application engineering operations, making the layout and designs for installation of systems prepared by industry application engineers.

(c) Service Engineering Division - is responsible for erection, installation, maintenance, service, correction of defects, and repairs. It is responsible for carrying out the designs of the Construction Engineering Division.

The titles of the other Headquarters Divisions - Advertising and Sales Promotion, Orders Service and Warehousing, and Market Research - are indicative of their functions. In general, these staff-type divisions assist the sales organization by performing their particular specialties.
The eleven District Offices are distributed geographically throughout the country (one office having jurisdiction in the territory of Hawaii), with headquarters in the cities indicated on the organization chart. To thousands of the Apparatus Department customers the District Offices and their territorial and sales offices are the General Electric Company. It is through these offices that sales are made and that good will and friendship is maintained with these customers. Each of the districts is divided into territories with a Territorial Office. To get complete coverage of these territories, local sales offices are located strategically throughout the territory.

Each District is set up as a business of its own, with a District Manager, District Engineer, and District Auditor. In general, each District has its Industrial Division, Central Station Division, Transportation Division, and Advertising and Sales Promotion Division. The segregation into divisions recognizes the variations in customer practices, organizations, problems, and the need for specialized handling and supervision of the relations with each main industry field. The territorial and sales offices, being much smaller in both business coverage and manpower, are broken down in a similar way depending upon the area and type of customer.

B. Products and Selling Job

In general, the Apparatus Department manufactures and sells products designed to do a specific job in industry. The products are technical in construction and application, and in many cases require the expenditure of significant sums of money for their purchase. Part of the product line are such items as turbines, switchgear, transformers, motors, industrial control instruments, generators, transportation equipment, meters, and other producer's goods. The salesmen of these products
must be technically trained and endowed with a strong interest in human nature, self-confidence, substantial physical and mental energy, tact, and persistence. They must be able to answer customers' questions regarding the design, construction, and application of General Electric equipment, and they must be well-grounded in all phases of engineering work. Many of the customers rely on G.E. sales engineers for technical advice on their engineering problems; and these men serve not only as salesmen but also as consultants constantly advising their customers on ways to improve their operations, reduce their costs, and speed production. Sales engineers are constantly working in their customer's interests, and have a deep feeling of responsibility toward the customers they serve. The outgrowth of this close customer-salesman coordination has frequently been new processes, new products developed, and new applications found for products of all types.

The Sales Engineer is the most personal contact which the General Electric Company has with its customers. It is correct to regard him as sales manager as far as his customers or territory are concerned. His duties consist of promoting the sales of all products either separately or in combinations, to the customer by: *(1)*

(a) Representing the Apparatus Department to the customer.

(b) Being responsible for all relations with the customers.

(c) Knowing his customers' policies, requirements, personnel and practices.

(d) Efficiently utilizing product specialists, application engineers, and the General Office

services, as may be necessary, to assist him in properly and efficiently selling and servicing the customer.

(e) (The successful sales engineer) performing his duties in such a manner that he becomes a distinct asset to the customer, so that he will almost automatically be consulted whenever a need arises for apparatus such as G. E. sells.

(f) make recommendations and aggressively promote apparatus products so as to meet customers' needs and to increase efficiently and economically the share of available business at a profit to the department.

In selling the products of the Apparatus Department, the sales engineer usually has one of three assignments.

(1) Handling one large customer. This may be a public utility or an industrial concern. Depending on the customer's size the sales engineer may do the job alone or may have one or more assistants.

(2) Handling a number of customers in one industry. The sales engineer might be assigned to all the paper mills, or contractors in a specific territory. Such sales engineers are frequently known as industry specialists.

(3) Handling all customers in a specific territory. The sales engineer is responsible for any type of apparatus business in his territory.

In general, the products are sold to three classifications of customers. First, are the machinery manufacturers who incorporate the apparatus product in the finished commodity which they (the manufacturers) are producing. Second, are the distributing agencies (such as wholesalers) who assist in supplying the market. Third, are the users, the industrial concerns and public utilities, who utilize the services made available by the apparatus product in carrying on their own particular businesses.

Although the Apparatus Department has 1030 sales engineers, it would be impossible for these men alone to satisfy the needs of over 18,000 customers from whom orders are received. Part of the selling load
is absorbed by agents and distributors, but much more is required in the selling job than the mere signing of the contract. The preliminary investigation, furnishing of engineering advice, and design work must also be performed. To assist the sales engineer (who cannot be familiar with all the products of the major lines) are the Product Specialists and Application Engineers. The product specialists are what their name implies and are thoroughly conversant with all the details of a specific and limited product line. The Application engineer is available to supplement the sales engineer's knowledge of the product uses. They may be specialists in particular types of products or in specific industries. Both the Product Specialist and the Application Engineer always clear through the sales engineer in their contacts with the customer, and they are always available for consultation whenever the need arises.

2. Evolution and Philosophy of the Selection System

When General Electric was founded by such pioneers as Edison, Thomson, Coffin, Rice, Sprague, and others there were no electrical engineers available to test, install, service, or even operate the electrical equipment which the company manufactured. College programs were largely devoted to instruction in civil and mechanical engineering. *(1)* What electrical courses were given were considered a part of the mechanical engineering curriculum. Therefore, in order to bridge the gap between manufacture and use of their equipment, the embryo company began to train men in six month courses to be experts in installation and service. As the company expanded and the needs for personnel increased, apprenticeships were established. At first, the men taking these apprenticeships paid

for their training. Gradually, however, the fee was converted into a plan whereby the company would pay a training salary until the instruction period was complete. Then, a regular wage was paid.

In 1880, a training program known as "Test" was inaugurated. (The "Test Program" will be described in more detail later in the report.) All men destined for management-level positions with the company entered this program which consisted of the actual testing of the company's products before they were released to the customer. Through the years, the program has been broadened, enlarged and perfected until its present position of background training for all the engineers hired by the company. To date, more than 18,000 men have been trained in the Test (or Student Engineer) program. There is no particular specialization by product or career during "Test", and all men are given comparative training.

About 1918, representatives from the company began to visit colleges and universities, interviewing students regarding their interests and reasons for pursuing engineering courses in school. Thus, at an early stage it was decided that technical training was essential for a majority of the company positions, and that colleges and universities were the places to obtain promising material. This was not always true, however, and briefly, in 1920, General Electric joined some other companies in the establishment of their own under-graduate educational programs. The advantages of selecting college graduates from hundreds of different educational institutions soon led the company to abandon any plan to compete with the colleges in undergraduate programs. Since that time, the Company has concentrated on post-collegiate education and engineering apprenticeship. The value of this type of program has been enhanced by the opportunity of "learning by doing" on actual industrial equipment.
In explaining the use of twelve or fifteen months of general training in the Test program rather than earlier assignment to a specific department, the company believes that they share mutual benefits with the new employee. This program offers the young engineer an opportunity to adjust himself to industry, but it also gives industry a chance to evaluate his abilities, to place him in the type of work for which he is best fitted, and to offer him further training which he can best utilize. From the time he enters Test to the time he retires, the engineer is encouraged to accept responsibility and to develop to the maximum his ability to guide and direct the activities of others. It is felt that industry places even more emphasis upon the ability to accomplish objectives through others than it does upon mere excellence in technical "know-how". The test program allows the new man to direct projects in proportion to his ability, and while so doing, to indicate fields of endeavor suitable for him. The program is designed to make a better connection between what is learned in school and its application to real life.

By combining all their selection tools, the Apparatus Department seeks literally to look at a prospective salesman from as many angles as possible. The basis for this view is that any weak points which are not readily ascertainable from a head-on position will be revealed in a "plan", or top-side, view. If, on the other hand, a defect apparently appears, it is scrutinized from other angles and by other methods to make sure it is not a shadow caused merely by the vagaries of light. In other words, failure to measure up exactly to any one or several of the standards set by interviews, tests, rating sheets, application blanks, work records, recommendations, and others -- does not disqualify the applicant for sales, but does call for further investigation of the factors in question.
The selection process starts at the college, continues during Test, assignment to sales training in the General Office, and selection for a particular District Office. Throughout most of the process the training has been of a general nature with emphasis upon the products, organization of the company, and the character of the individual. If, at any point in the process, the applicant appears to be especially suited for a line of endeavor other than sales, arrangements are quickly made for his transfer to the field. The selection philosophy of the company can, I think, be summarized by quoting from the foreword of a General Electric pamphlet directed at college seniors. It says:

"To you, a young man about to graduate from college, 'opportunity' may mean many things -- a chance to survey the many fields of work open to you, so that you may choose the field to which you are best suited; an opportunity to make contacts in that field, so that you can become established in it; an opportunity to learn and gain experience, so that you can advance in your chosen profession to the limit of your abilities."

The Apparatus Department system is an attempt to facilitate this personnel placement process.

3. The College Recruiting Program

Like many other companies requiring high quality industrial salesmen, the General Electric Company concentrates upon the colleges and universities of America (also, a few universities outside the United States) as a source of sales material. In addition to whatever other attributes college graduates may have, technical background is essential in selling the industrial equipment in which the Apparatus Department specializes. Apparently, the colleges and universities supply this pre-industry training, and the General Electric Company prefers to train the
young graduate rather than attempt to re-train and re-orient the older, experienced salesman. It has been estimated that approximately 98% of the Apparatus Department salesmen come to the company via the college recruiting program.

It would be reasonably accurate to state that the sales manpower requirements of the Apparatus Department depend upon the maintenance of balance among three "classes" of personnel. The most advanced of these classes is that embodying the trained and experienced sales engineer who is doing productive work in the District. The middle "class" includes a sizeable number of student engineers and young sales engineers who are in a "training pool". To locate the third component of our personnel-balance, we must go to the colleges and university seniors who are potential sales applicants. The selection program is the door through which trained men pass from the applicant stage to the status of district salesman. As openings resulting from retirement, promotion, and other incidental losses become apparent in the District, qualified replacements are obtained from a training reservoir beginning at the Test program and continuing through the General Sales Offices. The movement of these men from the training group necessitates their replacement by college graduates interested in careers with General Electric. This is the selection cycle.

To discover what the demand for new trainees will be, each of the operating departments of the company is asked in the early Fall to take careful inventory of their personnel and indicate how many men each will need for the coming year. It is realized that the new men will not be assigned permanently for two or three years, but the man they displace from training will be almost immediately available. By the synthesization of these reports, a manpower budget is prepared, indicating the number of college graduates desired for the particular
year. Naturally, other factors such as business outlook, past statistics, and changes in the labor market are also considered in the preparation of the budget. This year, 1949, the company expects to hire approximately 750 technically trained college graduates. These men will go not only into sales, but into all the other varied fields available in a company as large as General Electric.

The responsibility for recruiting these college graduates rests with the Technical Recruiting Division of the company. Approximately thirty per cent of the men hired each year by the company are non-technical (arts, business, law, etc.) graduates, and the procurement of these men for the accounting and other fields of company endeavor are handled by a separate division. Four men of the Technical Recruiting Division, therefore, are charged solely with the responsibility of visiting each of the engineering schools selected throughout the country to conduct employment interviews. The schools are selected on the basis of their scholastic and other educational ratings (one indication is a list prepared by the Engineers' Council For Professional Development) plus the experience of the company in contacts with their past graduates. Over 343 schools are now represented in the company, although each one may not be visited by an interviewer every year. However, approximately 125 colleges and universities are visited each year and about 10,000 interviews are held.

None of the men interviewed is selected for sales or any other specialty. The first twelve or fifteen months with the company will entail general training in the Test program. The main purpose, then, of the interview is to select men not for any particular field of endeavor, but rather to detect those men who have demonstrated during their school years that they have ability, personality, and character. As one of the
executives of the company has stated: *(1)

"We are interested in the following factors.
Has he shown an inclination to leadership?
Has he shown ability to mix with his fellows
and to make and hold friends? Has he shown
an inclination to participate in quite a num-
ber of activities during his college life, such
as athletics, social events, fraternity work,
and so forth? What has he done? How successful
has he been?"

In addition, the company is interested in the applicant's scholastic record. Generally, it is found that scholastic standing and other qualifications which are being sought are matched together. *(2)

To facilitate the conducting of the interview, preliminary application blanks are distributed by the school placement bureaus in advance of the recruiter's visit. After these blanks (Figure 11) have been filled out by the applicants, they are used by the interviewer to acquire quickly the essential facts concerning the applicant's back-
ground. Rather than enlist the aid of the school placement bureau in screening any of the prospective candidates, the interviewer will talk with any man who indicates an interest in General Electric. If the student is a non-technical graduate, and he appears to be promising, the Technical Recruiter will relay the information to the proper per-
sonnel at the home office in Schenectady, New York.

The main objective of the interview is to induce the student to talk freely and exhibit those traits of personality and background which are indicative of his real self. Little attempt is made to direct the conversation into any particular channel, but instead, the inter-
viewer is interested in hearing the applicant speak convincingly and

Name in full: Smidley Edward Robert

College or University: Univ. of Michigan

College address: Beta Theta Pi

College address: 328 Green Ave.

Permanent address: 328 Green Ave.

Date of birth: 1/1/25

Are you a citizen of U.S.A.? Yes

Height: 6'0" Weight: 180

Is father living? Yes

What portion of college expenses have you earned by working? 20% by scholarships? 80% by G.I. Bill?

State subjects which interested you most during college.

Over-all grade or quality point average: 2.3 on basis of being highest grade point obtainable.

Special studies or projects assigned by professor.

Give details of working experience, including apprenticeships, listing name and location of employers, dates of employment.

Construction gang - Walter Construction Co. - Detroit - Summer '43

Lumber Yard (Derrick hand) - Brown Bros. - Detroit - June to Aug. '43.

Explain fully any physical defects, including sight, speech, hearing, limb, heart, rupture, etc.

References other than college professors: Dr. George V. Allen 28 Blue Vioir Pk. Detroit, Mich.


College activities: Music, Dramatics, Debate A.F.E.

Publications: A.F.E.

Athletic varsity baseball, Intramurals, Honorary Fraternities Iota Phi Eta,

Honorary fraternities: Beta Theta Pi - President

Offices held: Dean, Senior Class - Social Fraternities.

Record of Professor: Dr. C. A. Horn, Dean, M.E.

Rating by Interviewer: 10 Excel. 9 Good 8 Ave. 7 Poor

Remarks by Interviewer: Initials or signature of interviewer.

Remarks of Professor: Has good approach to and mastery of scholarship. Is very cooperative. In following non-academic matters as well.

Student's use reverse side also (over)

Figure 11
Year of high school graduation: 1943

Month and year entered college: Sept., 1943

Month and year re-entered college after military service: Feb. 26, 1947

Month, year and day of actual graduation:

Military service—rank: Date entered: June, 1943 Date released: Jan., 1946

Government or armed services experiences:

No. of terms completed of V-12 ASTP

(Graduate Students Only)

Postgraduate, University, or professional school training:

Institution: Date entered: 

Major subjects: 

Degree: Date graduated: 

Institution: Date entered: 

Major subjects: 

Degree: Date graduated: 

For what type of work do you feel best fitted by aptitude, training and interest?

What original contributions have you made?

Provide with this blank a transcript of academic record.

This Space to Be Filled Out by Recruiters:

Salary offered: Program offered: 

Reason for starting rate offered: 

Expiration date of offer:
intelligently on almost any subject. It is thought that the great majority of college seniors are very unfamiliar with industry and career relationships in general, and therefore, cannot be expected to express a determined conviction for any specific field of business activity. Since a reasonably lengthy general training period will precede any definite assignment, it is held that the man's own interests will assist General Electric in deciding on a specific position.

The decision to hire a man is in most cases made by the interviewer at the college campus. Within several days of their interviews, the men who have impressed the interviewer as being qualified for training are notified to that effect by letter. The decision to hire a man is arrived at by a consideration of the rating given by the interviewer on the back of the preliminary application blank, the recommendations (written and verbal) of those faculty members contacted during the visit, and the educational and other background qualifications possessed by the applicant. Included with the letter of offer to the applicant are several informative inserts (shown on pages 100, 101, 102 and 103). The "Outline of Employment Procedure For Scientific and Engineering Personnel" includes a reminder of the information necessary for employment records and other pertinent data. The "General Information Regarding Test Engineering Program" contains questions and answers which the interviewer and applicant probably did not have an opportunity to discuss during their twenty minute interview. Also included with the letter of offer is a formal application blank (Figure 12) which obtains some additional statistical information about the applicant and acts as a formal acceptance of the job offer. This blank is filled out and returned to the Technical Recruiting Office in Schenectady.

For those interested persons not attending a school which is
GENERAL INFORMATION REGARDING

TEST ENGINEERING PROGRAM

We receive numerous inquiries from men who are considering employment with the General Electric Company, and anticipating that you may be confronted with similar questions, we are listing the inquiries generally asked.

1. What is the length of the Test Program?

Normally 12 to 18 months. This varies in individual cases, being contingent upon experience, age, and year of graduation from college. In general, test men spend a minimum of 9 months on Test.

2. What is the length and location of Test assignments?

The Test Program is operated in all major plants of the Company, and also some affiliated companies, as shown on the attached transfer sheet. Each assignment covers a 3 months period. Initial assignments may be arranged at any of our 9 major plants, taking into consideration proximity of distance, family situation and housing. In general, it is desirable for the Test man who is not confronted with a serious moving problem to have assignments at 2 or 3 different plants.

3. How are initial assignments determined?

It is our policy in any given group of incoming men to assign half of the men to the outside Works, and bring the other group into Schenectady. Since the Test Program is operated at 9 different plants, there is a constant interchanging of test men between the factories. There is no particular advantage in reporting to Schenectady for the first assignment. The initial assignment in most cases is necessarily arranged at the discretion of the Company, although the Test Engineers participate in the selection of subsequent assignments.

4. Does the Test Program follow a certain pattern?

No. Since the program is flexible, experience gained by each person is "tailor-made" to fit his particular qualifications and preferences insofar as production schedules permit. Men may report for the Test Program each week.

5. What is the procedure concerning pay increases during the training program?
Only those hired at the minimum starting rate of $[\text{dollar}] per month receive an increase at the end of six months on Test. The transfer rate from Test into an engineering division is $[\text{dollar}]. Individual salary reviews will be made at the time of transfer into an engineering division in the case of those hired at higher rates due to certain military or industrial experience. Subsequent increases are based on merit and salary reviews for men in engineering or other divisions, are made annually.

A bonus is paid for second and third shift (night) assignments.

6. What is a "sign-up"?

Test Engineers who show qualities of leadership and responsibility are selected to serve as supervisors in many Test sections of the Testing Department. Such men are known as "sign-ups" and are given additional remuneration depending on the length of the sign-up, which varies from 3 months to a year. Thus early in his engineering career, the young engineer has an opportunity to achieve a position of leadership and the handling of men.

7. What is the General Electric policy on transportation expenses?

The Company does not reimburse men reporting to a factory for their first Test assignment. For subsequent Test transfers between Works, a transportation allowance for the individual (self alone) is granted.

8. What classroom programs are available?

Major programs are:

ADVANCED ENGINEERING PROGRAM - comparable to graduate work.

CREATIVE ENGINEERING PROGRAM - to discover and develop intuitive abilities.

SALES ENGINEERING PROGRAM - for potential commercial engineers.

MANUFACTURING TRAINING PROGRAM - designed to train men for positions in the manufacturing field.
GENERAL COURSES - covers actual engineering problems which have arisen in the Company and also Company organization and financial structure.

All courses, excepting the Advanced and the Creative Engineering Program, are given on the individual's time, the Company supplying instructors and text material.

9. What is the housing situation?

The housing situation may be divided into three classifications:

a. Single men will encounter no difficulty in finding suitable living accommodations since many men live in private homes, Co-operative houses (similar to fraternity homes), or at the YMCA. Our offices in Schenectady and the Test Offices of the other Works maintain lists of private homes in which room, or room and board, may be obtained.

b. Married men without children may find it necessary to secure temporary accommodations in private homes while seeking permanent quarters, which are frequently located through contacts made at work or in outside or social activities.

c. Due to the scarcity of apartments, married men with children are advised preferably to report alone, insofar as possible, and have their families join them later. There is no definite housing bureau in the Company, but leads of accommodations may be secured through advertising in local papers, personal contacts and suggestions from this office. It will be our policy to bring married men with families to plants where their entire training may be completed without the necessity of transferring to another location unless the engineer wishes to transfer for specialized training.

If there are further questions, or if more specific information is required on any particular point, please contact this office.

B. E. Hocking
TECHNICAL RECRUITING DIVISION
OUTLINE OF EMPLOYMENT PROCEDURE FOR SCIENTIFIC 
AND ENGINEERING PERSONNEL

1. Enclosed is an application blank which you may fill out and return as your acceptance of our offer of employment. Since this offer is contingent upon your being able to meet our physical requirements, it is important that you describe in detail on the application blank any abnormal conditions in vision, speech, hearing, heart or other physical limitations. Also, if you will indicate the date on which you will be able to report for work, instructions will be sent you concerning the definite time and place of reporting for your initial assignment.

2. Please be sure to request the registrar to forward us immediately after graduation a complete transcript of your college grades.

3. It is imperative that you submit the following documents at the time you report for work, since without this information, your addition to our payroll will be delayed:

   a. A Social Security card, which may be obtained from a Social Security office in any city.

   b. Your military discharge papers if you are a veteran.

   c. Official evidence of birth, such as a birth certificate, or baptismal record which shows date and place of birth, provided baptism occurred within 1 year after birth, or a notarized affidavit of birth by parents.

      Please do not mail the above information.

4. When you report for work, it will be necessary for you to:

   a. Pass a physical examination given by our Company doctor.

   b. Sign a patent agreement assigning to the General Electric Company patentable inventions made in the course of your work.

It is suggested that you address all correspondence pertaining to this offer, to Miss B. E. Hocking, Technical Personnel Division, Building 23, General Electric Company, Schenectady, New York.
APPLICATION FOR EMPLOYMENT

with

GENERAL ELECTRIC COMPANY at Detroit, Michigan

This application for employment must be made out and signed in ink personally by applicant. Each question must be answered in full. (If answer to question is "No" or "None" indicate same.)

Applicants must satisfactorily pass a physical examination by the Company's Physician before they can be accepted as employees.

Social Security Acct. No. 599-185-264

PRINT NAME in full (no initials) Edward Robert Smirnley

PRINT ADDRESS: Street and Number 328 Green Ave.

PRINT Telephone: City or Town Detroit, State Michigan Phone: 8-6204

POSITION desired Test Engineer

Date of birth October 12, 1925 Height 6'0" Weight 180

Grade school attended Hartman Memorial

High school attended Astoria High School

College attended Univ. of Michigan

Business, technical or vocational school attended

Give below: Full names of living relatives

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mrs. Eleanor Smirnley</td>
<td>328 Green St., Detroit, Michigan</td>
</tr>
</tbody>
</table>

Give names at your relatives in this Company's employ

Have you ever been arrested? Explain (Other than minor traffic violations)

Give U. S. Military or Naval Service and dates

Give any additional details of experience on reverse side

Give below last three employers for whom you have worked. (If this does not adequately cover your experience, supplement on reverse side)

<table>
<thead>
<tr>
<th>Time Employed</th>
<th>Name and Address of Employer</th>
<th>Name of Foreman or immediate superior</th>
<th>Kind of Work Done (Give details on reverse side)</th>
<th>Wages Received</th>
<th>Reason for Leaving</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>Name</td>
<td>Address</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To</td>
<td>Name</td>
<td>Address</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Address</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Address</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I certify that my answers to the above questions are true and that the physical examination requested by the Company is to be made with my consent. I also agree that said questions and answers shall form the basis of my employment. I also agree to submit to such future examinations as may be required by the Company and that the foregoing questions and answers and my said examinations may be used by the Company in whatever manner it may desire.

Date June 2, 1948 (Sign here) Edward Robert Smirnley

Figure 12
being visited in any particular year, there are several methods of contact with the company. The applicant can write direct to the Schenectady office and arrange for an interview. In addition, some of the outlying schools are visited by a qualified member of the nearest district office.

**h. The Test Program and Subsequent Selection Procedures**

After graduating from college, the new General Electric student engineer technically reports to the home office at Schenectady for assignment to a training program. I have used the words "technically reports" because the first assignment may actually be at many places other than Schenectady. Considered to be one of the most choice assignments for the new engineer with sales aspirations is that in a District Office during the interim between employment and an opening in the Test program. Here in the field, the new man gets a chance to see just what type of work he may be doing if he does qualify for sales. This pre-test assignment, incidently, is generally granted to those applicants who appear to be promising sales prospects.

By far the greater majority of new men, however, report to one of the company's plants to take part in the Test program. As the name implies, this program consists entirely of practical experience in the testing of electrical and mechanical equipment prior to shipment to the customer. Young engineers are therefore given an opportunity to examine critically and carefully the products which the company manufactures. The test engineer makes the various tests which are required to assure satisfactory future performance. Here are descriptions of several actual tests:

(a) Railway Control - This test involves the testing of control apparatus before installation in railway locomotives and other transportation vehicles. The test engineer works under a Head of Test on equipment such as:
circuit breakers, line breakers, contractor boxes, drum controllers, master controllers, cam-operated controllers, relays, switches, governors, governor panels, excitation panels, etc. All equipment is inspected and tested to meet the required standards as to tip gap, contact surface, resistance, calibration, operating current, insulation tests, etc. The equipment tested is of small physical size and involves electrical and mechanical testing.

(b) Special A-c Test - Development tests are taken on all Special A-c Motors and Generators. The tests are special in nature and require various set-ups both mechanical and electrical. A good fundamental knowledge of electricity is required. The test engineer gets experience in wiring up the machines, selecting the proper meters, and plugging the board to obtain the desired voltage and load. Frequent contacts with the engineers are made which offer him an excellent opportunity to ask questions and gain technical information concerning the tests that he is running. Some of the tests performed include heat runs and complete mechanical checks.

To acquaint the young engineer with the many types of equipment which the company manufactures and the diverse opportunities available to him, he is assigned to several testing sections in rotation, spending approximately three months in each. There are enough test assignments to occupy 16 years if one were to pursue each in turn. *(1) Obviously, no one spends that length of time on the Test Course. But during 4 to 6 assignments (often in several different plants), each man can get a good cross-section of the Company's activities, and can determine the place he should seek. Each man has considerable freedom in selecting the successive assignments he wants. He gains working experience with production equipment and becomes acquainted with the men who create and market these products. More important, he gains a perspective of the Company's operations,

with which he can choose his own field of activity.

The supervision of the Test Program is also obtained from the ranks of young engineers who have themselves only recently completed it. To each testing division, there is assigned one young man as Head. He is assisted by more experienced engineers when the need arises.

These Heads of Test and other supervisors are an integral part of the sales selection system, because they also contribute to the ratings received by each student engineer as he proceeds through training. After each test assignment, the test engineer is carefully graded on a rating form (Figure 13) by his supervisor. His performance, ability to assume responsibility and get along with people, and other indicative qualities are watched and noted. The results of the ratings are discussed with the men regarding the job done, any weaknesses and strong points. Later, these ratings will be considered in analyzing the man's sales aptitude.

While they are going through the Test Program, the students are encouraged to circulate throughout the plant, meeting and talking with the personnel of the various operating and staff divisions. The initiative for these information-seeking forays is left mainly with the young engineer, for it is felt that his maturity and interest should be developed to the point where he will make good use of opportunities for understanding "what makes industry tick". If, however, the student engineer has not been able to contact the men with whom he would like to talk, the Technical Recruiting Division will arrange a series of interviews for him. When the men have indicated particular interest in a division, and the men of that division are sufficiently satisfied that their qualifications have been met, post-test assignments are made. The test engineer, however, must finish at least a year in the test program before moving on to another position.
### NOTICE:

Men are expected to spend a reasonable time on Night Work.

---

### LIST OF ASSIGNMENTS

- **FORT WAYNE, IN.**
  - Commercial Refrigeration
  - Fractional H.P. Motor Dev.
  - Fractional H.P. Motor Prod.
  - Large Motor & Generator
- **LYNN, MASS.**
  - Aircraft Gas Turbine
  - Aircraft Gas Turbines - Accessories & Superchargers
  - Aircraft Gas Turbine Planning
  - Constant Current Transformers
  - Maintenance and Engineering
  - Rectifier Lab.
  - Small and Medium Motors - Thompson Lab.
  - Steam Turbines
  - Steam Turbine Research
  - Steam Turbine Test Planning
  - Traffic Control Systems
  - Turbine Generator
- **MILWAUKEE, WIS.**
  - G.E. X-RAY Corporation
- **PHILADELPHIA, PA.**
  - Air Circuit Breakers
  - Methods
  - Panels
  - Power Circuit Breakers
  - Relays
  - Works Lab.

---

### RATING BY HEAD OF SECTION

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<tr>
<th>Grade</th>
<th>Technical Ability</th>
<th>Industry</th>
<th>Accuracy</th>
<th>Executive</th>
<th>Personality</th>
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<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>EXCELLENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>GOOD</td>
<td></td>
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</tr>
<tr>
<td>1</td>
<td>POOR</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**EXPLANATORY REMARKS:** (Required of each man)

---

Figure 13
The mutual agreement between the applicant and the sales division, however, is not completed merely by the expression of interest by both parties. On the contrary, a great amount of screening begins at this point. Here, the Sales Training Department in Schenectady actively enters the selection process. With the sales manpower requirements of the district offices as a basis, the Sales Training Department notifies the Director of Test in each plant that Sales Training representatives will arrive at the plant for interviews with student engineers who are interested in sales. The blue Sales Engineering Program Application blanks (Figure 14) are completed by the applicants prior to the interview. Two representatives of the Sales Training Department then visit each of the plants to conduct an interview program. In order to get as much experienced opinion as possible into play in the selection procedure, from two to four plant sales managers are invited to participate in the interviews. The feeling of the Training Department is that if a majority of the interviewers and experienced sales engineers are favorably impressed by the candidate, the chances are good that the majority of the customers will react similarly. Again, it must be emphasized that this interview is only one phase of the selection process and no attempt is being made to sample a market's reactions by obtaining the opinions of several men.

During the interview, conversation is directed at obtaining answers to questions like these:

(1) Does the man really want Apparatus Sales? Is he enthusiastic about the idea and what initiative did he use in attempting to qualify for sales?

(2) How would this man react to a blunt refusal by a customer on the grounds that a competitor's product was far superior?

(3) Would I like this man as an associate?
SALES ENGINEERING PROGRAM APPLICATION

PLEASE PRINT

Date 9/10/48

Last Name Edwards

First Name Robert

Middle Name

G.E. Address Room Saldy

Bldg. Works

Date Engaged with G.E. 3/11/48 G.E. Phone 43/18

When do you expect address to change 12/1/48 NOTIFY US OF CHANGE

Your Division (Payroll) Test (Test, Laboratory, etc.)

(Specify which Division)

Home Town and State Detroit, Mich.

Date of Birth 10/17/25 Weight 180 Height 6'0" Married? yes No. of Children

Vocation of Father Merchant

Grandfathers

Uncles

College U. of Michigan Year Graduated 1948 Degree B.S.

Department

Scholastic Standing 3.0 Scholastic Honoraries

Extra Curricular Activities (Include Offices Held) Fraternity, various local, 00

Urotamnals, AIEE, Pres. Faculty

College Expenses Earned % 20 How Earned Writer

G.E. Test Assignments Pre-test Dist. Rd., Mat. & Gas Turbines

General Courses Taken Fundamentals Orientation

Military Experience Navy - 3 yrs. (U-12, 2 yrs) Ensign

Practical Experience (Previous jobs, including summer work) Coast. Gang

Lumber Yard (Derrick hand)

Hobbies - Past and Present Sports, radio, reading, photography

In what type of work are you interested? What do you eventually want to do? State briefly the reasons for your choice.

Interested in sales engineering Eventually would like to become a Sales Engineer for G.E. I'd like to work with people and I feel that my best capabilities lie in sales work.
### Applicant: Snidley

<table>
<thead>
<tr>
<th>Impressions</th>
<th>Full Meaning</th>
<th>Emphasis</th>
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<tbody>
<tr>
<td>Pleasing</td>
<td>Tall</td>
<td>Fair</td>
</tr>
<tr>
<td>Ordinary</td>
<td>Medium</td>
<td>Pale</td>
</tr>
<tr>
<td>Uninviting</td>
<td>Short</td>
<td>Dark</td>
</tr>
<tr>
<td>Forceful</td>
<td>Rapid</td>
<td>Clear</td>
</tr>
<tr>
<td>Convincing</td>
<td>Slow</td>
<td>Vague</td>
</tr>
<tr>
<td>Not Convincing</td>
<td>Hesitant</td>
<td>Rambling</td>
</tr>
<tr>
<td>Insincere</td>
<td>Noon</td>
<td>Colloquial</td>
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<tr>
<td>Cheerful</td>
<td>Agreeable</td>
<td>Dynamic</td>
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<tr>
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<td>Attractive</td>
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<tr>
<td>Listless</td>
<td>Set</td>
<td>Sarcastic</td>
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<tr>
<td>Glum</td>
<td>Argumentative</td>
<td>Conceited</td>
</tr>
<tr>
<td>Rapid</td>
<td>Mature</td>
<td>Sincere</td>
</tr>
<tr>
<td>Deliberate</td>
<td>Logical</td>
<td>Tactful</td>
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<tr>
<td>Impulsive</td>
<td>Wavering</td>
<td>Diffident</td>
</tr>
<tr>
<td>Slow</td>
<td>Illogical</td>
<td>Tactless</td>
</tr>
</tbody>
</table>

### Appearance and Physique

- **Fat**: Pale
- **Well Built**: Clear
- **Average**: Ruddy
- **Slight**: Dark
- **Neat**: Untidy

### Speech and Manner

- **Spirited**: Well Poised
- **Interesting**: Vague
- **Boring**: Rambling
- **Affected**: Colloquial

### Personality

- **Dynamic**: Sincere
- **Aggressive**: Tactful
- **Determined**: Diffident
- **Reserved**: Tactless

### Intelligence and Judgement

- **Keen**: Clear Thinking
- **Average**: Methodical

### Remarks

**Reason for choice**

Enjoys pre-test in Detroit. Has had it in mind since starting college. Has made it a point to interview several Commercial Sales people while on test.

**Scholastic Record**

- Very good. Very active in part-time work.

**Present Outside Interests**

- Edison Club - Golf - YMCA
- Alumni Club

**Particular Desires**

- Interested in central station sales, preferably mid-west.

**What factors would interfere with performance?**

None evident.

**Type of work rated for**

Sales

**Type of work best suited for**

Sales

**Name of Interviewer**

ABC

**Numerical Rating**

<table>
<thead>
<tr>
<th>Name</th>
<th>Composite</th>
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<tbody>
<tr>
<td>ABC</td>
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<td>9 1/4</td>
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<td>9 1/4</td>
</tr>
<tr>
<td>9</td>
<td>9 1/2</td>
</tr>
</tbody>
</table>

### Impression Scale

- **Outstanding**: 10
- **Good**: 9 1/2
- **Fair**: 9
- **Poor**: 8 1/2
- **Very**: 8
- **Composite**: 7 1/2

---

THIS SIDE TO BE FILLED IN BY INTERVIEWER
The impressions gained from the interview are combined with observations made during the test training period. Some of the traits that have been observed during this period are: *(1)*

(1) Intelligence; or, in G.E.'s particular case, technical ability and general intelligence.

(2) Business sense.

(3) Energy or willingness to work. (Someone said not long ago, "We are looking for men who get ahead by perspiration rather than by inspiration."")

(4) Personality, which, in a broader sense includes a man's ability to get along with his fellow workers and all kinds of people in the organization.

(5) Appearance - tidiness, etc.

(6) Leadership - the ability to organize, supervise or inspire the action of others.

After each interview, a Training Department representative writes his comments about the applicant on the reverse side of the Sales Engineering Program Application blank (Figure 14). At the extreme bottom of the page is a numerical rating scale with a spread in ratings from seven to ten points. Also provided is space for the initials of each of the interviewers and their respective ratings. At the present time, a rating of 8-3/4 is considered qualifying for this particular "hurdle" in the sales selection procedure.

In conjunction with the interviews held at the plants, a combination of psychological tests are also given. These tests are administered by a trained representative of the Schenectady office, are graded, and then forwarded to the Rohrshac Institute (a psychological testing agency) where they are interpreted by a professional psychologist. The summary

form used by the company in recording the test evaluations is shown in Figure 15. The test battery includes the Scovill Classification Test which is designed for measurement of various basic abilities, such as arithmetic reasoning, verbal comprehension, and others. The applicant is rated with respect to the immediate group taking the tests at a given time, and also with respect to all the student engineers who have taken the tests. (the ratings are shown under the classifications ST and SE on the test summary sheet) Another test given is an intelligence test -- the familiar I.Q. test. The Inglis Vocabulary Test and the Kuder Preference Record are also included in an attempt to clarify the applicant's training background and occupational interests. The last test in the series derives its name from the institute which interprets the results -- the Rohrschac Institute. The Rohrschac Test (which has also been called the Ink Blot Test) bases its findings upon the analysis of the applicant's reactions to a series of ink blot pictures. The ink blots are shown to the applicant for a limited period (several minutes), in which he is required to list his impressions of what the pictures suggest to him.

The findings of the Institute which are given on the reverse side of the summary sheet enter into the considerations of the decision to select or reject an applicant for sales. The tests results, however, are viewed from an advisory status rather than being an absolute criteria. The use of the tests by the company is a comparatively new procedure (dating back about six years), and an attempt is being made to correlate the results with actual performance on the job. If a general statement as to the relative importance of the tests as a selection criteria can be made, it would recognize the tests as constituting about ten percent of the final decision to select or reject.
**Anonymous**

**B. E. E. degree**

Test Engineer  | Schenectady  | 23

**Overall Classification Test:**

<table>
<thead>
<tr>
<th></th>
<th>S.T.</th>
<th>S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average for all tests:</td>
<td>65%</td>
<td>70%</td>
</tr>
<tr>
<td>Routine clerical ability:</td>
<td>55%</td>
<td>60%</td>
</tr>
<tr>
<td>Routine comprehension and learning:</td>
<td>75%</td>
<td>85%</td>
</tr>
<tr>
<td>Spatial perception:</td>
<td>70%</td>
<td>80%</td>
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<tr>
<td>Arithmetic reasoning:</td>
<td>45%</td>
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<td>Verbal comprehension:</td>
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<td>70%</td>
</tr>
<tr>
<td>Dexterity:</td>
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</table>

**Routine Clerical Ability:**

<table>
<thead>
<tr>
<th></th>
<th>Right</th>
<th>Wrong</th>
<th>Score</th>
<th>IQ</th>
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<tr>
<td>1</td>
<td>19</td>
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<td>195</td>
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<tr>
<td>7</td>
<td>32</td>
<td>3</td>
<td>205</td>
<td>9</td>
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</table>

**Total Score:** 1313

**I.Q.:** 123

**Intellectual Level:** Superior mental level with better concrete than abstract ability

**Oedelric Personnal Test:**

Score: 108  
Estim. I.Q.: 188 (8)

**Inglish Vocabulary:**

Form: A  
Score: 108  
Estim. I.Q.: 108 (8)

**Knder Preference Record:**

<table>
<thead>
<tr>
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<th>%ile Scores</th>
<th>Raw Score</th>
<th>%ile Scores</th>
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<td>3. Scientific</td>
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* Dominant interests in the scientific, persuasive and social service fields.

**Figure 15**
Mental approach stresses generalization, abstract ability, the over-all picture with an average concern for the practical, everyday problems. Basically introverted and deriving most of his stimulation from his creative inner resources, he is frequently inclined to lose himself in his imagination. There is, however, an attempt to move in the ambivertial direction and to become a bit more responsive to environmental stimuli despite the fact that he appears to be quite self-sufficient. The outstanding characteristic is his lack of self-discipline, both over his phantasy life and his relationships with others for he may possibly become helpless in the face of the stronger, more unbridled emotions. There is a lack of self-assertiveness, a suppression of the more primitive drives and ideals are somewhat in conflict with ambitions. Range of interests is average plus.

An individual of superior mental ability who needs to exert more discipline over his behavior. Somewhat questionable but should not be screened out on basis of test performance alone.
When the interviewers of the Sales Training Department have returned to the home office, the results of the interviews, the Test Program rating sheets, the personnel folders, and the results of the psychological tests for each applicant are reviewed. The applications are then classified into three groups: those that can be immediately accepted; those that are rejected; and the questionable group. It is this last group whose disposition is most difficult to make. In most cases, further interviews for the men in the group are arranged, and additional effort is made to sound out co-workers and supervisors for further information. When the final selections have been made, individual letters are written to those who did not qualify for sales, explaining the basis for the decision and suggesting alternate pursuits. Some idea of the scope of this procedure can be gained from the fact that during an average year, about 100 men are selected from a group of 400 applicants.

The men who have now tentatively been selected for sales are invited in smaller groups to attend a luncheon with some of the major executives of the company. The executives present at this luncheon are the Vice President in charge of Sales, the General Sales Manager, the Managers of the various Industrial and Product Divisions, and other top-management men. A card (Figure 16) with basic identifying information about each of the applicants is distributed to each of the attending executives. Before the dinner is over, each candidate is required to give a short talk about himself, telling specifically why he is interested in becoming an Apparatus Department Salesman. This gives the department managers an opportunity to size up the men as far as their personal characteristics are concerned. As for other traits which cannot be judged in this manner, the records of the original interviews and the ratings on daily work are available for examination by the department managers.
Name: Edward R. Smirdley  
School: N.C. State  
Degree: B.S.M.E.

Birthday: Jan. 12, 1924  
Hometown: Raleigh, N.C.

Military Service: Navy Air Corps - Ensign

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Card issued to each Executive at Dinner Meeting

and

Summary Sheet of Ratings Given to Sales Candidates

Figure 16
After each talk, the executives rate the candidate on a seven to ten point scale, the 8-3/4 rating again considered as qualifying. The ratings are summarized (Figure 16) and an average score for each candidate is determined.

The student is now ready to move into one of the company's general-office sales departments. This is still a selective process, however, because again, more interviews are held than there job openings. Whether a man goes into a general sales office at this point or not, he begins specialized courses in sales training. These courses, too, are part of the selection process because their nature requires the exercise by the student of various sales aptitudes and abilities. The performance in the courses and in the General Office sales organization is closely watched to indicate further what type of selling each man is best qualified to do.

As openings develop in the field organizations, the various district managers come to headquarters and select men from the group in the General Office sales departments. After this, the sales engineer finally finds himself in active sales work. His training has been thorough and the process of selection has been long and as critical as present knowledge will allow. His course of development which started with the college interview has taken him through the Test Program, contacts with many workers and executives, multiple interviews, psychological tests, after-luncheon speeches, and repeated analyses by selection personnel. It is now his job to get out and sell!
### SALES TRAINING COURSE SELECTIONS

**Colleges and Universities Represented**

**Spring 1949**

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1. Select the right salesmen.

2. Properly train them.

3.英特尔化组织和直接他们。

4. 不断地表扬和认可他们。

5. 提升表现和改善绩效。

6. 提高更有效的利用和推广策略。

7. 加强与销售员和部门的沟通。

8. 加强销售和分销渠道覆盖。

9. 严格执行销售培训技术。

10. 通过持续的个人研究项目。

11. 加强对销售员的销售跟进。

12. 加强对销售员的销售跟进。

13. 制定销售策略。

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VIII. Author's Commentary on the Selection Methods
of the Apparatus Department of the General Electric Company

Although the ability and quality of the personnel who do the recruiting for the General Electric Company are not being questioned, the point at which this selection system is weakest may be in employment at the college and university. Hiring is done almost "on the spot" after only a brief interview by a single company representative. Although school records are available for use in conjunction with the interview, a fifteen to twenty minute talk could very well be inadequate for the immediate hiring of a high salary employee who is expected to possess upper-level management ability. Despite the proficiency of any individual interviewer in discovering desirable characteristics and abilities, the consensus of opinion among personnel experts maintains that under certain circumstances any person can err in human evaluations. Perhaps the mood of the interviewer has altered his judgement on a particular day, or some sub-conscious prejudice (of which he is unaware) will cause him to mentally disqualify an otherwise good sales prospect. The generally accepted method of minimizing the effect of these human frailties is the multiple interview by as many responsible company personnel as is practicable. Later in the process of selecting salesmen, this procedure is utilized, but initial selection is determined solely by the judgement of one company representative.

The adverse consequences which might accrue from the one-interview phase of the Apparatus Department's selection system may be alleviated by the multitudinous and diverse opportunities for placement which are available to the trainees each year. It is reasonable to assume that the Technical Recruiter can utilize school records and his interview impressions of the applicant to determine an acceptable general level of competency and suitability for a position in industry. This particular evaluation precludes any attempt
to measure adaptability for a definite specialty, but instead, concentrates on obtaining men with certain basic qualifications which can be developed by training into competency in one of the diverse fields of endeavor offered by a company as large as General Electric.

Also a conditioning influence in the initial employment program is the large number of new men hired yearly. The national coverage of colleges and universities is expensive in its present form, and to multiply these costs by increasing the number of interviews with each of the thousands of applicants might be prohibitive. The time available for recruiting 750 screened employees all over the United States is also limited, and unless the Technical Recruiting Division were greatly enlarged, a more detailed investigation of each candidate would not be possible.

The use of centralized recruiting (in this case, by the Technical Recruiting Division) is advantageous from several standpoints. The expense of recruiting is minimized by a coordination of efforts and maximum interviewing coverage per visit at each school. Providing that his judgements have been substantiated by the employment records of his selectees, the services of the Technical Recruiter are more desirable than the de-centralized efforts of the branch and district office personnel. The training and experience of the Recruiter affords each applicant a standardized opportunity to qualify for employment. It is possible that some of the field-office personnel could offer this same opportunity, but in the majority of cases, the urgency of their regular business duties and their lack of personnel training cause the district and branch representatives to consider recruiting as an unimportant sideline. That this is not desirable, from the point of view of the company or the applicant, is apparent.

By planning and obtaining manpower requirements for the various company divisions well in advance of actual recruiting trips, the Apparatus Department reduces the possibilities of obtaining mis-fits in later position
assignments. With knowledge of the number and character of the applicants needed to fill job openings before them, the Technical Recruiting Division and the Sales Training Department can efficiently plan their selection procedures to insure an adequate analysis of enough applicants to satisfy the needs of the various divisions. Thus, advance planning obviates the necessity of hasty judgements in placing men.

The Test Program is excellent as an aid to effective job placements. As has been indicated before, it affords the new graduate a good opportunity to see how all the theoretical functions with which he became acquainted in college actually operate in industry. He has a chance to discover their relationships with each other, and to determine those in which his interests and abilities lie. Conversely, the company can evaluate the new man and assist him in choosing wisely. The tangible costs of the program appear to be substantial, but the intangible benefits resulting from productive and satisfied work may be more than compensatory. The program is not entirely a training expense because actual testing of equipment is being performed by qualified personnel. In this way, the company receives a return which otherwise would have been necessitated as wages for the testing duties. The training is valuable to the student engineers regardless of their final assignments in the company, because this experience with Apparatus Department products will be beneficial in most fields of company endeavor.

It is possible that the ratings given to each applicant by the Head of Test after each assignment should be carefully scrutinized before being given unqualified credence. In most cases, the Head of Test has been a recent test student himself. Necessarily, his experience in a supervisory position is probably very limited, and his close relevance in age and occupational station to the men whom he is grading could have some influence in evaluations of their performance. Although undoubtedly very rare, there is
a possibility of some form of contemporary bias entering into the rating judgements. However, the close proximity in industrial experience between the Head of Test and his protegé may be advantageous because of his fresh knowledge of the student engineer's problems and his close relationships with the men. He may be in a very excellent position to know their real merits. At any rate, these test-assignment reports should be accepted with certain reservations.

Another "check-point" at which ratings should be carefully weighed is the executive dinner meeting. As you may recall, at this dinner each applicant is required to give a short talk about himself and the reasons he desires to choose Apparatus Selling as a career. Here again, it hardly seems judicious to consider seriously the elimination of a candidate because one executive has rated him lower than the qualifying 8-3/4 points. Any analysis based upon a three minute talk by an inexperienced young man before some of the top executives of the company is very likely to be influenced by the peculiar set of circumstances surrounding this step of the selection procedure. There is undoubtedly great pressure on each candidate, and considerable allowance should be made for lack of polish in after-dinner speaking. It is not inferred that this dinner meeting cannot be of value in illuminating the capabilities of the sales applicant, but an occasional low rating (which might be raised at a subsequent meeting) should not be considered as critical in any way.

The selection personnel in the Apparatus Department show an intelligent approach in the way they utilize tests. The results are but one adjunct to the complete screening process, and no attempt is made to hail them as a decisive arbiter in the final selection of salesmen. The tests are used to contribute additional information, in order to more nearly complete the total background picture. The results of the tests are being accumulated, and when sufficient time has elapsed, investigations will be
made to determine the degree of correlation which they bear to performance on the job. The company is also wise in obtaining the services of a trained psychologist in the interpretation of test findings. An amateur analyzer having little knowledge of test limitations can do irreparable damage by attempting a pseudo-psychological study of test results.

Before good men can be selected, they must be interviewed. This apparently obvious thought is ignored by many companies. To the college senior, most companies are relatively the same -- he knows very little about any of them. In order to interest good prospects, a company must advertise its employment possibilities. The General Electric Company does this in several ways. Brief case histories of young college graduates who are employed by General Electric are contained in advertisements appearing in college newspapers. In addition, the company has designed several attractive booklets describing opportunities with G. E., and including descriptions of the student engineer's life while in training. Although it has been stated by one of the management personnel of the company that these booklets are sent mainly to men who have expressed an interest in G. E., it is the author's belief that this literature should obtain as complete distribution as possible. The booklets should be available in all placement bureaus for perusal by those men who may be good material, but who have not already decided to obtain an interview with General Electric. In this way, the field of interested applicants should broaden considerably, and the reasons for this interest may then be based upon fact rather than upon hearsay.

In retrospect, the salesman-selection system used by the Apparatus Department is time consuming and expensive. According to company spokesmen, however, the turnover of salesmen after completion of their two or three year period of initial employment with the company is extremely small. This is the point at which they really become productive, and their value to the company is greatest. By this time, each man has had a chance to
evaluate a sales engineering position with General Electric. The company, also, has had an opportunity to examine to their satisfaction his qualifications for the job.
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