

**The Knowledge Bank at The Ohio State University**  
**Ohio State Engineer**

**Title:** What Industry Expects

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**Issue Date:** May-1929

**Publisher:** Ohio State University, College of Engineering

**Citation:** Ohio State Engineer, vol. 12, no. 7 (May, 1929), 5, 18-19.

**URI:** <http://hdl.handle.net/1811/34795>

**Appears in Collections:** [Ohio State Engineer: Volume 12, no. 7 \(May, 1929\)](#)

# WHAT INDUSTRY EXPECTS

By CHARLES A. MELSHEIMER, ex'11

## EDITOR'S NOTE

Charles A. Melsheimer is an alumnus of Ohio State University, ex'11. He started at the Hawthorne Works of the Western Electric Company at Chicago as a loading coil inspector in June, 1916. He became chief of his section a year later, entered inspection planning work in 1919, and became chief of the Transmission Apparatus Department in 1922. He was promoted to chief of the Final Apparatus Inspection Division in 1923, and in 1927 took charge of Inspection Results. In 1928 he became an Assistant Superintendent of the Hawthorne Inspection Branch, the position he now holds. Mr. Melsheimer, by reason of his past experience and present duties, is eminently fitted to set forth the qualities an engineer will be expected to exhibit in industry.

Most young engineers have a pretty good understanding of what is going to be expected of them when they get a "job" and start on their career, from the standpoint of research, engineering and similar individual work. But very few of them have the slightest idea of what is expected of them if they are to become supervisors or executives or if they happen to land in a shop job and not a laboratory or engineering job. The most important, and I believe the largest, field open to young engineers is that of industrial leadership, the path to which lies through advancement as a supervisor and an executive. If he starts in as a "shop" man this is his only path of advancement. The subject may therefore be restated to read: "What Industry expects of engineering candidates for its executive positions."

Most industrial concerns have an organization akin to a military organization, officered at the top by the owner, president, or chairman of the board of directors and running through few or many steps down to the gang boss or straw boss who roughly corresponds to the corporal in the Army. These officers or supervisors usually include all the highly paid men and have the jobs worth striving for. You will be expected to "fit" this organization. Fitting an organization sounds easy but it is quite a large order and really constitutes most of the training and experience necessary to attain success.

The young executive's progress will divide into two phases—first, to qualify as a candidate and obtain the first supervisory job, and second, to demonstrate thereafter that he is qualified for further advancement indefinitely. The first stage is that of individual work and the experience gained here is of relatively little value once he has gained recognition as a supervisor. His record as an individual worker should establish certain facts as to his ability. These facts will indicate to his superiors whether he gives promise of being a successful supervisor or not. The second stage is that of building himself into a leader of men and establishing the confidence of his employers and associates in his growing ability to handle their affairs as they want them handled.

What indications are looked for to decide whether a man gives promise of being an executive? The first and foremost is his attitude toward his fellow-workers. If he is friendly, cooperative, interested, and tolerant they will feel that he likes people and that people will like him. If he does not like people—all people, any people, and not just his own crowd—he cannot become a really successful supervisor or executive.

Few men realize how much influence upon their future is exerted by the opinion of their equals and of their subordinates. If a man is energetic, resourceful, aggressive, and finishes promptly everything he starts it will indicate that he will be able to direct the efforts of others without having to lean on his boss for inspiration and will not need prodding. A lot of common sense and good everyday judgment is a powerful argument that he can be trusted to manage part of his employer's business. He does not want executives who chase rainbows—he wants his product turned out on schedule time at the minimum cost and with the facilities readily available. No man who is not interested in his job and his employer's business and who is not willing to go the limit to serve can hope to convince his boss that he ought to be made a boss too. Last but not least, it is most expedient to have the good will of your boss. You may not approve of him at all, but there may be plenty of good reasons for his having the job. Your problem is to do what he wants done in such a way that he recognizes your ability and feels that you are a mighty nice young fellow. It does not pay to try to remodel your boss—that is his boss's prerogative.

Having once become a supervisor what then controls one's destiny? Engineering ability? That is rather taken for granted when you are employed as an engineering graduate. You will be measured by your relations with your subordinates, your associates, and your superiors and by your attitude toward your employer and his business. But you may ask if ingenuity, inventive ability, efficiency, foresight, good judgment and the like have no influence on a man's progress. Certainly they do, but those are the things which are more or less natural and about which not a great deal can be done by way of improvement. In general they will take care of themselves. But your personality is completely in your control and may be modified in any way you see fit and it is the thing which affects your relations with your fellow men. The executive who deals with his subordinates so that they are happy in their work, and like to work for him will obtain from those subordinates to the fullest all that he asks or expects from them. His results will be in proportion then to the excellence of his planning and directing. A supervisor is judged by the results of his people's work rather than his own. To be known as a picker and a developer of good men is worth more to a supervisor than any personal accomplishment. The supervisor who cooperates with his associates and maintains a feeling of mutual respect and good will with these men who are his competitors for advancement will be regarded with much more favor by his employer than the one who is surrounded by jealousies and enmities. Your superiors expect your support and your assistance. You will always be working for a boss of some sort. Much depends on him and his impressions of you. He may be a very different type and be personally repugnant to

(Continued on Page 18)

## WHAT INDUSTRY EXPECTS

(Continued from Page 5)

you. Mentally he may be your inferior—is quite likely to be. But it will be possible to find his good points, and his likeable characteristics. One of his jobs is to size you up and it will not help him to do a good job if you have enrolled any ill feeling against yourself. Your employer, of course, is primarily interested in the productiveness and economy of you and your people and expects you to be interested in the same thing. He is quite likely to pay you in proportion to your apparent value to him and not in proportion to your idea of how much you ought to be worth.

The most important development which the industrial world demands of the young engineer is the building of character. A lot of people mistake character for morality. A man may have perfect morals but an almost worthless character. The phase of character which must be built up is a pleasant, forceful personality. Personality is merely a set of habits of thought and intercourse. These can be changed at will although most people consider that they and their personality are inseparable and that to change their personality is a sort of disloyalty to themselves and their family. It is also considered to smack of hypocrisy or of posing. Consequently one's reaction to a suggestion of change of personality is frequently one of resentment, a feeling that one's good points are being overlooked because of some inherent defect. But the best brains in the world, if coupled with a disagreeable personality, are well-nigh useless in organizations where things are accomplished by contacts with other people. A temperamental genius can do wonders working on research work but is badly handicapped when working with an organization of human beings. And industry, for all its machinery and labor saving, is and always will be the manipulation of organizations of human beings. Successfully fitting one's self into an extensive organization is quite likely to require a pretty thorough remodeling of the young man's less self-analysis and observation.

What constitutes a pleasing, forceful personality? The forcefulness can perhaps be developed less than the pleasing part. If a man lacks forcefulness, it may be due to lack of aggressiveness or it may be due to lack of confidence. Confidence can be built up, and forceful, effective methods of conversation can be acquired. Whether aggressiveness can be acquired, I seriously doubt; I think it can only be somewhat strengthened or improved. On the other hand, over-aggressiveness is not pleasing and must be toned down. The person with a pleasing personality is characterized by his courtesy, his liking of people, his tolerance of their ways and ideas, his ability to see the good in others and willingness to praise them, his interest in other people and their welfare, and his ability to talk about the things that interest his listeners rather than himself. If you develop a pleasing personality and are reasonably aggressive, then you will fit into industrial organizations and your intelligence, common sense, initiative, resourcefulness, persistence and other sterling

qualities may be utilized to their fullest in the interest of your employer with a consequent reflection in your progress and your reward.

When the young engineer leaves school and enters an industrial organization, he is thus faced with some strictly non-engineering problems and must learn as best he can how to fit the organization, how to work for a "boss," how to obtain recommendations from his rivals and to pave his path upward with good will and courtesy. Slowness to learn costs many years of stagnation and disappointment .

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