TESTED METHODS AND CONDITIONS FOLLOWED AT THE PLANT OF THE WAGNER ELECTRIC MANUFACTURING COMPANY

Mr. Lord has over five hundred women in the plants under his charge. In this article written for industrial executives he outlines the conditions of the buildings and general surroundings where they are employed and gives the methods established for their discipline and protection. All are based on a common sense study of female psychology and are adapted for masculine control. The girls are selected by a matron, put to work at once, made to wear a uniform waist and apron, safeguarded absolutely against accident, and their relations with their foremen and inspectors supervised. Marriages between men and girls in the plant are frequent. An especially valuable feature of this article are the reasons that are given for each detail of the methods followed.—The Editors.

The time has come when we are about to follow the French axiom "cherchez la femme" (look for the woman) and some of us in industry are going to have a hard time finding her; and the real problem is, when some of us do find her how are we going to keep her?

From my own observations I am led to believe that a considerable portion of our industrial world runs its personnel on the assumption of getting something for nothing—a thing as difficult to do with the labor end as with the sales end. Industrial managers assume that because they have agreed to pay a flat price for certain services their responsibility ceases. They are correct in this assumption if they are willing to pay the additional price demanded and that certain things are "thrown in," the cost of constantly changing personnel, the gradual lowering of quality and the eventual arrival of the time when they must take the class of help that offers and grade their work accordingly. In buying, it should not be forgotten that good will is sometimes an important item.

We Americans are always inclined to await a crisis before we start to remedy a trouble, and to assume that because we have started, we have se-
cured results. This system, typical of us, is like assuming that signing a
vote pays an overdue debt.

In my opinion there are, and al-
ways will be three classes of indus-
trial establishments: First, those that
foresee industrial tendencies and re-
quirements, that anticipated the
safety first, scientific management,
and vocational fitness movements and
were not greatly affected thereby.
Second the class that conscientiously
desires modern and liberal conditions,
but must have someone bring them to
them. They are a commodity they
purchase, not produce. In the third
class are those who are not interested,
and upon whom all improvements are
forced. The reward of Class 1 lies
in two directions. One, the privilege
of first shaking the plum tree when
there are few about. Two, the satis-
faction of listening to Class 2 expiate
upon the vast possibilities of the vir-
gin field they have discovered.

The above comments would seem to
indicate that I have not the patience
I should have with some of our
weaker members, and I frankly say
I have not. One may talk about the
benefits of a communal apprentice
system until he is black in the face,
and few will listen. Some will say,
"Why should I train them, only to
lose them," or, "it is impossible to get
good boys." But let a crisis or labor
shortage come and they will call a
meeting and really expect to cure
their troubles by passing a resolution,
and queerly enough it does help some,
because the greatest of their difficul-
ties is psychological.

QUESTIONS FOR THE EXECUTIVE

Just as the proper training of a
child begins before its birth, so do
proper conditions for the employment
of women—either for work to which
they are naturally adapted, or to
which they must be trained—exist
years before their advent. True, we
sometimes get by without proper
preparation and facilities, but we
cannot always do so, our novelists to
the contrary notwithstanding, and
the hiring of women is a serious
undertaking.

The first thing the executive needs
is a little self communion, the out-
come of which should be a declaration
of principles. What class of girls is
he going to cater to, the typical shop
girl so called, the elderly, grass-widow
type, or the mother's girl type. The
answer depends upon several things.

First, and most important, is the
factory and its adaptability to the
conveniences needed by the class of
help in view; second, its cleanliness,
not upon occasion, but generally;
third, the nature of the work, whether
requiring a mental or physical type;
fourth, the source of supply; fifth,
and very important, the class of men
who will be in charge of the girls; not
the question of their morality so much
as that of their common sense, and
back of this, the temperament of the
men to whom appeal must be made in
case of real troubles or hysteria.

Next consider whether the plant is
so arranged that there are no cubby
holes anywhere, no basement to which
the entrance is not in plain sight, no
corner in a storeroom that is not
readily observable, no ground glass
enclosed foreman's or clerk's office;
and that there is a properly equipped
hospital or rest room.

Also study the personal attitude of
those who are to come in contact with
the girls, see that they are in sym-
pathy, that they have an excess of
patience, and further is the manager
willing to give the necessary time to
the women that their comfort and
peace of mind demand. In business,
as in social life, it is the sum of the
little things that makes happiness for
a woman, or it business equivalent,
contentment, and he should remember that he hires his foremen for productive work, not welfare work—that is another trade with most of them.

Next, will the manager segregate the girls in a separate building or floor, or part of a floor, or will he work them promiscuously among the men? This each must determine for himself, according to conditions.

What hours shall the women work? Shall they go to work with the men and quit before, or shall they do the opposite? Shall they work Saturday afternoons, and if so on what basis?

TESTED METHODS

Having shown, I think, that there is room for much thought and preparation in dealing with women in industry, I will describe the methods in practice at the Wagner Electric Manufacturing Company's several plants in St. Louis. I believe they may be taken as typical because we manufacture a broad line of mechanical apparatus, and our girls, to the number of between six and seven hundred, perform a wide range of operations, somewhat restricted, however, by our ability to secure an abundant supply of excellent young male help. The probable war conditions are not troubling us, as we expect our long continued policy to give us the pick of help, and the extension of female help is merely of departmental interest.

To start with, there is no place in our factory that is not fully exposed to view. We have no foremen's offices; my own and similar offices have clear glass doors; every storeroom is standardized of wood or steel partitions three feet high and diamond mesh wire or clear glass above; racks
are always placed at right angles to the aisle, so that anyone walking through the shop or along the aisle has a clear view; the entrances to all storerooms are in the main aisle.

We employ a so-called matron at each plant, as well as a nurse for the hospital. It is the duty of the matron, who is a trained social worker, to circulate among the girls, to help them in their personal troubles, to visit them if they are ill, to ascertain causes of absence, to forestall complaints as far as possible and, above all, to see that their washrooms and toilets are kept clean—and by that I mean not disinfectantly clean, but soap-and-water clean. She accompanies any girl to the foreman or to my office with a complaint. She also sees that all State laws in regard to female help are strictly observed. She hires all the girls, and her instructions are to hire girls between sixteen and twenty-two years of age, of pleasing personality and modest demeanor, who either live with their parents, or relatives, or have come from the country. They must never have been married. This last is fundamental and applies even to the matrons. The matron is given a list each morning of positions for which help is required, and picks girls for these positions with intelligence, strength or dexterity as the predominant characteristic. The girls are usually requested to go to work at once. Many people, men as well as women, experience a form of stage fright upon securing a position, particularly if it be the first one, and do not come back after being hired. Others have the usual human trait of losing interest in a thing they have secured, and fail to show up. So it is
better to put them to work at once.

UNIFORM WAIST AND APRON
All girls employed by us wear a uniform waist and apron for which we furnish the goods at cost. This is the best quality of unfadable blue chambray. The benefits of this course are manifold. First, it raises the girl's earnings as it decreases her expenses, and she can secure all of this material she desires for herself or her family. It is a potent factor in preserving the modesty of the girls and the respect of the men with whom they work. When I say respect I mean, not in a moral sense, but the mental attitude of the men. It also eliminates social distinction. It prevents girls coming to work Monday morning wearing a waist that has seen hard service the day before, or that is obviously out of place in the shop. No girl can work efficiently who is not properly dressed, or in other words, who is conscious of her dress, or is conscious of the dress next to her. Observation teaches that the thing that worries a woman is not how expensive is her own gown, but is it as expensive as her neighbor's.

Another benefit of the uniform is that it renders new girls conspicuous, as usually two weeks elapse before they are uniformed. This affords all concerned a chance to observe them. We do not attempt to dictate the style in which the uniform shall be made, save that it be modest, and it is seldom we have to act as censors.

The trouble with many rules is that they are carried too far, and so we modify this rule by allowing the girls to wear what they wish on Saturday morning, as they may want to go downtown in the afternoon. There is no question about their wearing it at other times, neither are we troubled with excuses that they forgot, or that they did not have a clean one. If these things happened they simply would not report, and absences from this cause are unknown.

WORK AND WAGES
As to wages, local conditions must control. We have three rates; one, for simple, repetition bench work, such as assembly or part inspection where only a single dimension is used; two, for winding small fields and armatures, small drill press and small punch press work, etc.; and, three, more important work on larger machines, small lathes, or any work where intelligence is required as well as skill.

Apropos of this part of the subject, I have given considerable study to the bearing of wages upon morality, and find that there is little connection between the two. In most cases the finer raiment is secured in the form of presents dictated by affection, rather than a cold blooded, pay-in-advance fee. But where the tendency does exist, and it does to a limited extent, it is where the salary of the girl enables her to live in near luxury, to afford gowns sufficiently expensive to go to theaters, etc., but not evening gowns nor hats and gloves that have the touch of luxury; or if she can afford them they must be worn until they look a little shabby. The intelligence of this class of girls makes them feel keenly the differences in dress. To the poor girl, some ribbon, silk stockings, or a pair of gloves represent her limit; if she is tempted, she knows that if she goes further than this it marks her and, to do her credit, she does not go.

CONTROL OF CONVERSATION
Someone has said that a woman will die for an idea but not for a principle. While in this as in most epigrams truth is sacrificed for brev-
ity, it is perhaps true that a woman in any station in life will risk her reputation for position and influence or to gain some fancied advantage over her neighbor, who would not be tempted otherwise. And we find that aggression is not always on the part of those in authority, although this is too often true.

In the shop this spirit manifests itself by a girl distorting the conversation between herself and the one to whom she has been talking. When a foreman or executive talks to a girl alone, the first question from the rest after he has left is, "What did he say?" What the answer is depends entirely upon the temperament of the girl. She may say it was a secret, implying an understanding, or she may say, "He offered me a raise in salary" or, "He wanted to make a date with me." She is more liable to do this if she envies or dislikes the one who asks the question.

For this reason, and out of fairness to the girl, who if she told the truth would probably not be believed, there is an unwritten but enforced rule that no foreman, inspector or executive shall engage a girl in conversation alone, nor, as far as we can prevent, does any man talk to them.

**No Definite Protective Rules**

We have no very definite rules laid down for their protection, for rules in such cases do not protect, and while we segregate them, usually, we do it as a convenience, not as a principle. We assume and are fairly certain that every place in our factory is safe as regards the attitude of the foreman. We lay down no rules for them, but
upon the advent of a new one, I have a talk with him, pointing out to him that we do not attempt to dictate or control the morals of our foremen, beyond saying that their actions shall not be the subject of public comment, because we know it is impossible for us to exercise such control; but we do insist that his conduct toward any girl whom he can influence or coerce must be strictly formal and correct, even to the exclusion of gossip on the subject, as we would consider this evidence of indiscretion and unfitness for his position. What his relations are with other girls we consider none of our affairs, except as I have noted above. This conversation usually takes place when I am taking him around and introducing him, or if I do not do this, some time when I meet him in his department. The application is never made personal, as we do not threaten.

As to the desirability of women employees, as in everything new, there is prejudice to overcome. In some factories this is a stronger element than in others. In our plant we always proceed with the assurance that the foremen are in sympathy with the principle of anything we undertake, but we consider it their privilege and duty to object to details until a satisfactory solution is found. We operate an independent shop and, as that presupposes making the job desirable and being absolutely fair, we find no objections from that source. We consider girls superior to boys but inferior to men, and cheaper than either. We consider them particularly good at the drill press, small punch press, small assembly, field and armature winding in small sizes, part inspection of small parts, spot welding, soldering, small grinding, small bench lathe work, etc., but do not think they should be employed at work where they are compelled to stand in one place all day, or on foot press work unless a shock absorber is used. Where they sit down, steel stools are best, sufficiently high and made with four legs; the others tip too easily. Foot rests should be furnished and should be at a convenient height.

Safeguarding Machinery

Guarding is particularly important and should be carefully studied and executed. Even where a special study is made and the intention is to guard well things slip by. A prolific source of danger is a drill press spindle. When the girls lean forward their hair is attracted, and to be caught means to be scalped. The guarding must not only be preventable but must be absolute.

The effect of female labor, properly conducted, is a benefit to the entire shop, for the reason that their work requires more study on the part of the tool draftsman to simplify as well as maintain accuracy and safety, on the part of the maintenance force to study new and safer methods of belt and direct drive, on the part of the foremen and sub-foremen to find methods of getting the work to the girls and away again. The general behavior of the young men is better, and they are more diligent, but of course discipline enters into this also.

We cater to the neatness and innate delicacy of women by painting all machines they use with white oil-proof enamel. It is sufficiently monotonous to sit at a machine doing repetition work, but it induces pessimism to have this machine black.

In our monthly magazine we openly advocate marriage between our employees, and to that end hire no girls or young men that we do not think desirable. The advantage of this arrangement is obvious. Usually when a boy and girl are "going together,"
they see each other for a couple of hours two or three times a week; both are dressed up and on their good behavior. At work it is different, each sees the other without artificial background. The man can tell whether the girl is industrious and modest, and the girl can tell whether the man is neat and steady, knows the opinion in which he is held by his fellow workmen and his foreman—and, what is as important, she knows what his chances are of keeping his job. We are very proud of the number of marriages that take place among members of our working force, and keeping track of them, know them to be happy and successful, where the girl has based her decision on observation and not on intuition. It is unnecessary to add that this conduces to give us a better class of girls, and we feel we are helping to establish mechanical families such as were once the power of New England communities.

In conclusion, we have found that the way to keep girls contented and efficient, aside from considerate treatment, is to throw them back upon themselves or upon the matron for any moral support they need. Running to the foreman or higher up is discouraged, and they are subjected to as little outside influence as possible so far as their work is concerned.

We have at present over five hundred girls. We have built this force up by a common sense study of female psychology from the feminine standpoint, and adapted it to masculine control (we do not believe in foreladies) and have done this, not as part of a scientific management plan, nor from benevolent motives, but as a logical method of reducing costs. We also like to think that our welfare work is primarily for the same purpose.