MENTAL HYGIENE AND INDUSTRY

HAS MENTAL HYGIENE A PLACE IN PRACTICAL INDUSTRY?
Boyd Fisher, Service Department, Lockwood, Greene & Company, Boston

INDUSTRIAL HYGIENE
Wade Wright, M.D., Secretary of the Division of Industrial Hygiene, Harvard Medical School

THE MENTAL HEALTH OF THE INDUSTRIAL WORKER
C. Macfie Campbell, M.D., Director of the Boston Psychopathic Hospital

MASSACHUSETTS SOCIETY FOR MENTAL HYGIENE
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HAS MENTAL HYGIENE A PRACTICAL USE IN INDUSTRY?*

BOYD FISHER
Employment Manager, Lockwood, Greene, and Company, Boston

The president of a company operating a group of industrial plants has become acquainted with rather startling facts put forward by those who have been specially interested in studying defective children, and who have extended their special psychological tests to the study of mental defects in adults. The figures given by these authorities seem to conflict with common sense. He has seen the assertion that one million, seven hundred thousand drafted men were given psychological tests during the war. Seventy per cent of these proved to have reached an intelligence age of no more than fourteen years. Forty-five per cent of the total number were "morons"—that is, of so low intellectual capacity as not to be capable of complete self-guidance.

Our president also has read the review of a book called Human Efficiency and Levels of Intelligence, by H. H. Goddard, and notes that the author, working on the assumption that the army was a fair cross section and a large enough sample of our population, has applied the army results to our whole people. Goddard asserts that seventy million Americans are no more than fourteen years old in intelligence. He further considers the facts in relation to industry and makes the point that the inefficiency of large numbers of workers is probably due to their being assigned to tasks that they can never learn to perform well.

In addition, Goddard seeks to substantiate by figures his contention that the low intelligence found in the army is seen also in the general population, as evidenced by the number who "finish school" at an early age, and, in industry, as evi-

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enced by earning power. Thus, in the accompanying table, which shows the earnings of groups of wage earners, and compares the age at which various groups leave school with the mental ages of the various groups of soldiers, we see that 68 per cent of wage earners make less than fifteen dollars a week, and 67 per cent of school children do not finish the eighth grade, or grammar school, which corresponds to the 70 per cent of soldiers who are below fifteen years in mental age.

WAGES

Of 100 wage earners

9% earn $150 — $200 per year
12% earn 250 — 300 per year
16% earn 350 — 400 per year
11% earn 450 — 600 per year
27% earn 750 — 1,000 per year
3% earn $1,200 per year
2% earn over $1,250 per year

SCHOOL

Of 100 children

13% leave in 4th grade, age 10
13% leave in 5th grade, age 11
14% leave in 6th grade, age 12
27% leave in 7th and 8th grade, age 13, 14
23% leave after 8th grade
15% attend high school
3% attend college

INTELLIGENCE

Of 1,700,000 soldiers

10% in "D-" Group, mental age 10 Morons able to
15% in "D" Group, mental age 11 contribute to support
20% in "C-" Group, mental age 12
25% in "C" Group, mental age 13, 14
16.5% in "C+" Group, mental age 15
9% in "B" Group, mental age 16, 17
4.5% in "A" Group, mental age 18, 19

Let us suppose that one more thought has come to the attention of our president. He has heard Carleton Parker quoted as saying, "Modern labor unrest has a basis more psychopathological than psychological, and it seems accurate to describe modern industry as mentally unsanitary." He may even have heard that the late Dr. E. E. Southard, while head of the Boston Psychopathic Hospital, expressed the opinion that strikes and other forms of labor unrest may be stirred up by leaders of abnormal mental make-up, agitating among workers whose emotions are sick or whose intelligence is feeble, and that the cure for industrial discord lies as much in the field of mental hygiene as in the field of economics.

Our president is a canny soul. He suspects the accent of propaganda in such large generalizations. He realizes that even scientists will overstate the probabilities of results in a new field before they have become completely familiar with it and its special conditions. He ridicules the Southard theory by saying that if it be true, then all he will have to do to settle the labor problem is to hire a few doctors from the state hospitals for mental disease and make foremen of them. And yet can he be blamed for thinking that some such absurd inference is to be drawn from the generalization referred to?

Let us assume, however, that our president overcomes his first suspicion of all propaganda and decides to make some cautious inquiries. He may feel that nuggets of valuable truth are to be found even in extreme statements. He therefore asks his personnel or service adviser to look into the question and report at the end of a week. "I'd like to know," he says, "just what there is in all this stuff about mental hygiene."

It is from the naïve point of view of such an inquiry that the present paper is written. The writer is not a psychologist or a physician. He is just an employment manager, interviewing the psychiatrist who states that he, from his studies of human nature, can contribute some facts of interest to the employer. He treats this psychiatrist as he would a man applying for a job in industry. This paper does not reveal the results of any original research or indulge in any new inferences for the sake of propaganda. It is rather the sort of critical examination that must precede and accompany both research and propaganda. Furthermore, the paper has to be so brief that the process of development of all the ideas cannot be traced, but only the final steps are given.

At the start it seems necessary to give a few definitions. The layman is likely to confuse similar terms of quite dissimilar meaning—for instance, psychology and psychiatry, which he hears mentioned as different methods of examination into mental conditions.

Psychology is an offshoot of philosophy. In theory, it recognizes that the emotions and temperament have as important a place in personality as intelligence. In practice, whether in the army or in industry, it deals only with intelligence and skill. It is concerned with capacity, and arrives at its conclusions on the basis either of laboratory examinations with strange bits of apparatus or of classroom tests with written answers to standard questions.

Psychiatry is a medical science. It may utilize the results obtained by the psychologist as the basis for determining intelligence levels, but it is much more interested in the emotional and temperamental factors in mental states. It prefers to judge people by their actions in their usual environment, rather than by their reactions to a test. It, therefore, studies their workmanship, their home conditions, and their educational and job history. If their actions and accomplishments are normal, it leaves them alone; if abnormal, it wants a physical as well as a mental examination. What I believe that I am dealing with is psychiatry, largely, and to some extent psychology.

As for what is discovered by mental inquiry, there needs to be a clearer distinction in the public mind between feeblemindedness and mental disease. Physicians may be surprised to be told that intelligent laymen often confuse the two things. It seems necessary, therefore, to point out that feeblemindedness is a limitation of mental ability, either inherited or acquired at an early age. Although feeblemindedness may be accompanied by or caused by mental disease, a feebleminded person is usually sane and dependable in affairs that make no call upon thinking beyond his intelligence. Mental disease, on the other hand, may afflict people of brilliant capacity and may be physical (involving brain decay or nervous troubles) or merely psychological (involving disordered ideas and emotions). Especially it should be pointed out that neither feeblemindedness nor mental disease is an absolute, but is always a relative term. One person has more brains than another, and one person has more judgment than another. The psychiatrist is interested in mental inefficiencies or psychopathic states which are no more serious or uncommon in the mental sphere than colds and headaches are in the physical. Only, he recognizes that these mild troubles which afflict each and every one of us make us more unpopular or unhappy than physical ills.

It may be well at this stage to make clear what is meant by the term “mental hygiene” which will be used throughout this article. Mental hygiene embraces our knowledge of the laws of mental health, of the personal and environmental conditions that interfere with mental health, and of those mental habits and social influences which promote the mental health of the community.

It is important to emphasize the distinction between the modern medical and the purely spiritual approach to the problem of mental health. Too long did the medical profession insist upon treating the human mind as merely a brain, and refuse to consider any condition of mind not involving physiological change. The medical profession itself has been largely responsible for the vicious misconceptions clustering around the term “insanity.” That term marks chiefly a legal distinction between people who are and people who are not responsible for crime. It is supposed to segregate “nuts” from all the rest of us. Those of us who are not “nuts” are assumed to be mentally sound. Legally, we are either sane or insane, just as we are either male or female. I need not stop to point out the many ways in which a new conception of relative mental capacities has been creeping into our criminology—particularly in the handling of juvenile delinquency, in the extension of the idea of the indeterminate sentence, and in such measures as vocational training in prisons. The public confusion on the subject of the insanity defense in murder trials indicates a weakening of the old distinction between sane and insane in law. Nevertheless, there it stands, a false conception, largely unshaken, and a legacy of the old corporeal medicine. The neglect of the mind by those in the best position to study its relation to the brain gave full liberty of action to those whose type of training compelled
them to leave the brain out of their theories. Thus, the Christian Scientists and the Emanuelists have approached mental health from the spiritual side almost wholly, and have given a big start to the study of mental hygiene from the subjective and somewhat introspective angle. Modern medicine, however, has at last waked up and demanded a share in the field that it might have preempted. The modern medical approach to mental health no longer leaves the spiritual and subconscious aspects of the mind out of account, and even consents to use the results achieved by the spiritual workers. But it also insists upon relating the brain and the body and the physical environment to the problem. Furthermore, while it does not condemn the method of the psychological workers, it prefers, whenever possible, to continue in the method which it has found useful in diagnosing and treating diseases of the body. If subjective tests yield anything of interest, it wishes to confirm these findings by objective study of symptoms and behavior, under observation within predetermined conditions. This medical approach is the method of psychiatry; and when I consider the problem of the place of mental hygiene in industry, it is precisely this method I have in mind. It is the only method that resembles the manner of meeting and overcoming problems in industry. We do not look for improvements in industry chiefly to those who examine only their own minds and desires for theories of change. By the same token, we should not look for true mental science to those who do not relate the mind to its determining environment.

Having narrowed our inquiry by definition to a question as to the place in industry of the medical approach to mental hygiene, let us next see what a genuine practitioner in this field would like to do, if he had his way with industry. Dr. Stanley Cobb, who teaches the subject at the Harvard Medical School, has written a paper entitled, *Applications of Psychiatry to Industrial Hygiene,* in which he has stated the aim of psychiatry in a way that all psychiatrists would probably be willing to accept. "As conditions are at present," he says, "a reasonable application of psychiatry to industry would seem to be the following:

1. Physical examination of all applicants for work.
2. Mental examination by (a) a period of training and observation, or (b) through mental tests.
3. Keeping in personal touch with employees' individual problems by means of (a) good foremen, (b) a system for watching individual efficiency, or (c) a sympathetic staff with a psychiatric point of view in the employment-management office, thus salvaging the men who might otherwise be fired.
4. Training the industrial physician to a knowledge of how human nature is constituted, not in conventional terms, but in the light of a dynamic and living psychology."

Even from the point of view of one wholly unfamiliar with the subject, Dr. Cobb's program does not sound extreme, and it has some inherently attractive features. Nevertheless, it would involve a degree of attention to mental problems which industry is not now giving, and it would assume that the industrial physician had, during his medical curriculum, got some insight into the fundamental factors involved in mental disorder and defect, or it would necessitate the industrial physician's spending a brief period in study in connection with some psychiatric clinic, in order to perform his work more adequately.

Now we are supposed to be asking ourselves just how far industry would consider these things to be practical. But perhaps it would be well first to ask if there are any obstacles to our doing them, even if they were practical. We know that there are many things that we could do and perhaps ought to be doing, but that, because of some obstacle, we are not doing. The religious issue, for instance, is an obstacle in the way of a practical solution of the Irish question. Opinions about President Wilson created an obstacle to the practical solution of the peace question. I think that there are obstacles to the early adoption of psychiatry in industry.

First of all, physicians, as at present trained, have an
extremely meager knowledge of psychiatry, and unless they have spent some time after graduation in specializing in this branch of medicine, they are not in a position to deal adequately with the problem of mental hygiene in industry. It is, therefore, certain that at the present moment there is no adequate medical personnel with psychiatric training to place at the disposal of large industrial organizations, should they desire such cooperation. The universities have become aware of this deficiency and are doing what they can to improve the situation, but progress in medical education is necessarily slow, and it will be many years before industry can expect to find among the medical profession the necessary number of physicians competent to deal with these problems.

A well-known employment manager of my acquaintance writes me that she considered last year engaging a psychiatrist, but was scared off because those she interviewed wished to subject all employees to a mental third degree. She felt that, what with physical examinations and centralized discipline, the workers were submitting to just about enough already.

Another factor to keep in mind is the necessity of extremely tactful introduction into the industrial relations of any type of examination that seems to be too intrusive or to suggest personal disqualifications, with regard to which an individual is apt to be extremely sensitive. In this connection, tact is of supreme importance. Any one will chatter, if not boast, about his symptoms of Bright's disease; and if, perchance, he has been operated upon—had his stomach removed and his duodenum sewed on to the esophagus—he takes a childish delight in talking about it. But where is the man who will admit that he is not as bright as he might be? No one likes to discuss his mental failings, precisely because of the common impression I have before mentioned—that a man is either sane or insane. This brings it about that any inquiry into a man's degree of mental efficiency is construed as a doubt of his sanity. But that is not the whole source of the difficulty. The special sensitiveness about mental diagnosis is due also to the fact that our minds are so much more us than our bodies. Those who believe in personal immortality dispute as to whether the body will be resurrected, but none doubt that the mind is immortal. To suffer loss in a member of the body is no more serious than forgetting a part of our past experience; but touch the vital core of all our life—our sound and self-disposing mind itself—and you do us more serious injury than in paralyzing our whole body.

Perhaps a third difficulty consists in the fact that emphasis on the conditions of mental health tends to suggest a new philosophy of life, a new attitude towards social discipline and control.

If it is true that people vary in mental capacity and mental health, and that each different degree of capacity involves a different degree of power, of judgment, and of corrective behavior, then it is also true that people vary in degree of moral accountability. The old definition of sanity was "ability to distinguish right from wrong." Those who were sane were held accountable for their acts and punished when they did wrong. The psychiatrist points out, however, that perception of moral and ethical questions varies according to the individual, and that waiting for wrong to be committed and then punishing it is wasteful and ineffectual. He proposes, instead, an adjustment of society and industry in which a man's competence to act will be tested, and his freedom of choice restricted to those fields in which he is capable of acting correctly.

Now this, if carried out to its logical conclusion, would involve a very saddening restriction of the freedom of the will and of liberty of action. The old theory of strict accountability was so much more tonic. It was too bad to see any one go to hell because he willfully lacked judgment, but it was a great game to be free to go wrong at any time. It was thrilling to fight the great fight twixt Good and Evil every day. Even if you didn't know which side you were fighting on, it was a great fight anyway.

I feel very sure that people who resist prohibition, people who oppose sterilization of criminals and feebleminded, people who set up a particular theological formula as a guide to all right conduct, will resist the theory of limited accountability. It is not merely a misconception they will have to get over, but their whole philosophy of life.

Perhaps I dwell too long upon obstacles. But part of the
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discussion can be credited to consideration of how to overcome them. In the psychiatrists’ method, if I understand it, a complete examination of erroneous ideas is part of their cure. To recognize prejudice as prejudice is to go a long way toward dispelling it.

The obstacles can be overcome sufficiently for psychiatry to make its way. Truth can advance through and around error. We can have gradual immunization against smallpox even in a state where the legislature surrenders the public right to protection by vaccination, and these difficulties in the way of psychiatry will probably all be met. In the first place, the psychiatrists will be less queer when it seems less queer to be a psychiatrist. The present group constitute a kind of volunteer poison squad who taste the new doctrines as an encouragement to the more conservative. Again, a tactful education of the public on the subject of relative mental conditions will make study of mental efficiency seem less awful. And the way to make the extension of psychiatry to the great mass of ordinary people seem less of an insult is, precisely, to extend it. Until these obstacles are overcome, however, I do not look for a very widespread and public use of psychiatry in industry.

Must psychiatry wait, then? We shall all be dead before prejudice dies. Fortunately for progress, a novelty does not have to wait until it can be widespread and self-asserting before it can get a foothold. Novelties have to make a piece-meal conquest. Samuel McChord Crothers, in an illuminating essay entitled, Protective Coloring in Education, has pointed out how every new truth has come in under the cloak and favor of an older and more acceptable doctrine. When theology was master of logic, science had to present itself as an interpretation of the gospels. Hugh Miller’s original book on geology purported to be an explanation of the first chapters of Genesis. Paley’s studies of anatomy and physiology were offered under the title of Natural Theology. At another time, when polite literature was the more respectable, Charles Darwin’s grandfather published a treatise on botany in the form of an allegorical poem, entitled, The Loves of the Plants, in which the real information was conveyed chiefly in the footnotes.

I am inclined to think that a subject which has to meet so much ignorant prejudice as psychiatry will also have to adopt some protective coloring. I think I can point out, indeed, that some phases of the subject are already developing in industry without any one’s suspecting it.

In the first place, consider the gradual adoption of the idea that there is such a thing as a varying degree of intelligence or mental capacity. Recently, in the clothing trade in Baltimore, the unions themselves agreed to a grading of workers according to ability, A, B, and C, and consented to varying rates of compensation in each grade. Management has long contended that there are differences between workers, not only of temperaments and bents, but also of capacity in general. For this reason, partly, it has rejected the idea of a straight day wage, and insisted upon payment according to output. Lately it has gone further and begun to rate workers according to intelligence and other qualities as a basis for assignment and promotion. Armour & Company, the Westinghouse Companies, the General Electric Company, and Sears Roebuck are among the well-known concerns doing this. It is true that such ratings are made upon the basis of the uninstructed opinions of superiors, and not on a psychiatric or other presumably scientific basis, but the idea of relative mental capacity is certainly implied in the proceeding.

Correlative to such rating schemes has been a corresponding development of the idea of “job specifications.” Nearly every modern employment department has made, or is making, a set of job specifications. These are standard descriptions of mechanical operations, together with a specification of the type of worker needed in each case to perform them. Not only the degree of physical strength and skill, but also the degree of mental capacity, is usually prescribed. The assumption is, of course, that different applicants will be found to possess a varying and measurable degree of native intelligence. Perhaps it also implies that it is wasteful either to put a man on a job for which he is not competent or to squander a brilliant worker upon a job beneath his qualities.

The discovery has even been made by industry that there are feebleminded people, and that some jobs thrive in the hands of the mentally deficient. A well-known button factory has certain monotonous inspection operations to which it assigns feebleminded workers of tested and guaranteed in-
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capacity. Dr. Bernstein, of the Rome State Custodial School, placed out for day's work one hundred feebleminded girls, all but two of whom made good. I have good reason to believe, as you will presently see, that a good many workers who are satisfactorily filling their jobs are really of less than average intelligence, but are under no stigma of feeblemindedness, because their jobs make faint demands upon the intellect.

There may be some who will be surprised to hear that I consider that the whole employment-management movement, which has made itself at home in industry during the last decade, is guided by the point of view of mental hygiene. Its purpose is identical—to substitute for the old policy of hire and fire a more subtle policy of individual adjustment. The policy of transferring from job to job—seen at its extreme with the Ford Motor Company, which will fire nobody, but shifts incapabilities till they find a proper niche—is a recognition of the existence of different levels of intelligence and mental condition. The idea of physical examinations as a foundation for correct physical adjustment, the study of illumination, posture, and fatigue, the establishment of rest periods, the organization of recreation and social activities, and the provision of good restaurant and sanitary facilities, all recognize that health and happiness condition not alone industrial peace, but mental efficiency. These things are not usually called mental hygiene, because of the common misconception of mental hygiene as a subject dealing only with crazy people. But those who know that discontent and unhappiness are the first stages of mental disease realize the import of these measures.

The most outstanding example of mental hygiene in industry was the work during the war of Colonel Brice Disque with the loggers of the Northwest. For years the lumber industry had been a plague spot—a hotbed of I. W. W. outlawry. Carleton Parker diagnosed the trouble as industrial insanity. He said that the loggers were "voteless, womanless, jobless," mentally sick vagrants who were crazy because they lacked decent bosses, comfortable huts, warm blankets, good food, and steady work. Above all, they wanted to have their manhood recognized. They were mostly men who thought with their emotions, and their thoughts were wild because their souls were sick.

The employers never believed him, but when the war made the government interested in spruce, it found that it had to get interested in men. Some inspired intellect in the War Department put Colonel Brice Disque on the job of logging for men. Where did they find him? Running the state prison in Michigan, treating his criminals as so many children or sick people, and they had the courage to put him on the industrial job.

I have no space to tell of the magic wrought by Disque. He made his job a straight-out enterprise of mental hygiene. Not that he examined and diagnosed individuals and gave them pretty thoughts to hold, but that he gave them handsome things to think about—steady work, decent conditions, and democratic self-expression. And the result was that the disloyal I. W. W. became the Loyal Legion, and got out the timber.

Such an example as this makes it easy to see that mental hygiene has a place in industry and is often found there. Colonel Disque's work was a good example of the application of the principles of mental hygiene. Its diagnosis was based upon intuitive recognition, rather than upon scientific scales of values and methods of inquiry. Its treatment was general and wholesale, like a job of public-health work. The psychiatrist points out that general causes make a whole group of people ill, but that special causes, even in a healthy community, make individuals ill. Disease has to be fought both wholesale and retail. You quarantine and vaccinate and clean up to prevent the community from contaminating the healthy individual, and you cure the morbid individual to prevent his infecting the community.

I think we may safely say that modern industry has begun to appreciate that mental conditions have to be studied and psychological remedies employed. No very definite technique is employed. Workers are divided into classes without being accurately classified; mental troubles are doped without being particularly diagnosed. Either the work is wholesale or wholesale generalizations are applied to individuals.

This may be enough. Industry always has an argument
against any new proposal in the statement that "it has some­how worried along without this thing so far, and might as well
continue to do so." Even if it is true that 45 per cent of
the people are morons, no more than twelve years old men­
tally, what of it? The textile industry used to work children
five and six years old. We have in our own mills some old­
time workers who began at the age of nine. Their tasks
have not changed since, and it is their own affair if they have
themselves grown any since. It is only recently that a federal
law kept children out of the mills till they were sixteen. The
great majority of industrial tasks don't require good minds,
but good habits. Why bother about mentality?
Mental hygiene has a reply to this. It tells industry: item
one, that the reason the government raised the age limit for
child workers was because, even if industry could use workers
only nine years old, the state couldn't use voters so immature.
It tells industry: item two, that a nine-year-old intelligence
can't hold sway over emotions and instincts and a will that
may keep on growing to the age of fifty. It tells industry:
item three, that most of our crime, drunkenness, and ineffi­
ciency is due to the mistake of letting persons with adult
impulses and childish intelligences operate without guidance.
Mental hygiene in industry, therefore, would not throw out
the 45 per cent of morons, but it would throw around them
the protecting arm of science.

The very reticent and cautious medical director of the
Massachusetts Society for Mental Hygiene—Dr. A. Warren
Stearns—has done a fine piece of work to which he has given
no publicity. I cite it for its moderation as an illustration of
how carefully the true scientist would take up work in indus­
try, even if he were given freedom of action. During the war,
Dr. Stearns made psychiatric examinations of some thirty
thousand naval recruits at Mare Island. The great mass of
them never saw Dr. Stearns. They had filled out cards,
similar to applications for employment, on which they gave
some details about jobs they had held, schools they had
attended, and family relationships. This information, which
is called "social history," passed through Dr. Stearns' hands.
In most of them he could read normal adjustment to
life, and the writers were not interviewed. In some 10 per
cent, he thought he saw incapacity to make adjustments easily.
These men were tactfully questioned, and a little less than a
third of them proved to be unfit for the navy. The remainder
were scheduled for further observation, or better assignment,
or close supervision. Two or 3 per cent of mental incomp­
etents isn't a large one to make a fuss about, yet any one
defective might have lost a submarine or caused an explosion
in the boiler room.

Recently I attempted to apply Dr. Stearns' principle of
selective inquiry to a group of three hundred employees
in an industrial plant. The study was made for me by the
employment manager, the plant manager, the plant physician,
and the nurse, under the guidance of a graduate student of
psychology and mental hygiene. Using the employees' records
as social histories, they selected a certain number as
probably deficient or probably somewhat deranged. Of these,
only twelve seemed to the executives, who knew them, to
warrant further study. These twelve were observed, con­
sidered with regard to production, conduct, and family rela­
tionships, and reviewed in the light of their physical examina­
tions. Ten were classified as probably deficient, but only one
as actually feebleminded. Several of these were simply cases
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HAS MENTAL HYGIENE A PRACTICAL USE?

decidedly worth while as a guide to physicians and employment managers in their work.

Mental disease is curable, but feeblemindedness is as incurable as big ears. As Professor Goddard phrases it, "every human being reaches at some time a level of intelligence beyond which he never goes; these levels range from the lowest, or idiotic, to the highest level of genius. The number of people of relatively low intelligence is vastly greater than is generally appreciated, and this mass of low-level intelligence is an enormous menace to democracy unless it is recognized and properly treated. The social efficiency of a group of human beings depends upon recognizing the mental limitations of each one, and so organizing society that each person has work to do that is within his mental capacity and at the same time calls for all the ability that he possesses."

Thus the hygiene of dealing with the weak-minded in industry would differ radically from the hygiene of dealing with the mentally sick. The former cannot be educated beyond their intelligence—but they can be fitted to appropriate work and trained in good habits and kept physically fit so that they do not deteriorate to a still lower level. It seems to me that even if the morons of industry do not lower the efficiency of operation, it is nevertheless valuable to tag them, if only to spare us the trouble of trying to force them beyond their capacity.

That part of mental hygiene which deals with the mentally disordered, however, is more difficult, precisely because a cure is usually possible. It is more closely relatable to efficiency because it leads to absenteeism, conscious withholding of efficiency, dishonesty, fights, turnover of labor, strikes, etc. And it is hardly necessary to adduce proof that these inefficient occurrences are frequently due to mental disorders. We have only to broaden our definition of a mental disorder to include the state of mind that produces these things. No one doubts the necessity of studying human motives and instincts in disorder. Indeed the hard-headed manager who boggles at the idea of examining his workers to see if there are any "nuts" among them is likely to welcome psychiatry with open arms once he learns that it is concerned with mere trouble makers. Any one who wants to deal with "grouches" and "kickers" and chronic absentees is welcome to his work, even if he does like to regard these disagreeable folk as merely sick minds.

As an employment manager reviewing the question of the practical application of the principles of mental hygiene in industry, I offer the following suggestions: First, that we consider for the present only the modern medical approach to the subject; second, that we strive to clear up misconceptions on the subject of mental hygiene; third, that we recognize wherein we are already employing mental hygiene in industry; and finally that we make a cautious approach toward a more scientific and technical direction of the work we are already doing. The caution is needed not only because we lack experience to guide us, and lack even an adequate body of medical specialists, but also, especially, because the education of the public takes time, and prejudices die hard.

As I view it, this cautious approach would be quite in line with what Dr. Cobb advocated. Obviously, the first step is further enlightenment of the employment managers and physicians already doing a general sort of mental-hygiene work in industry. To this end I suggest conferences of such workers at which papers on the subject are read, if possible by psychiatrists. When these workers are informed, an effort should be made to clarify the minds of general executives on the subject, so that any later steps can be taken with proper asent. Perhaps it will then be possible to make a mental-hygiene survey of an industry. Such a survey would be a study of both the conditions affecting the mental attitude of the workers and an examination of social histories as shown on the records. Only rarely would individual personal examinations be necessary. These would be conducted so as not to indicate doubt of the employee's sanity, and perhaps would be incidental to an interview brought about ostensibly for some other purpose.

Such a survey would then be used as a basis for further
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study and training or action by the regularly employed service workers. The professional psychiatrist would need to come in only as a consultant and trainer for the other personnel workers. The great advantage of utilizing the regular physician and service workers, instead of a psychiatrist, lies in the fact that inquiries by the former start with the assumption that the subject is normal, whereas questions by the latter seem to imply the reverse. The advantage of having an open-minded, willing subject instead of a rebellious or frightened one, is obvious. The possibility, too, of organized protest against even the most innocent and sympathetic attempt at mental hygiene is clear.

With all due cautions, however, and with all acknowledgments to the present state of the public understanding of the subject, mental hygiene has, in my opinion, a real and important place in industry and offers great promise of public service.


INDUSTRIAL HYGIENE*

WADE WRIGHT, M.D.
Department of Industrial Hygiene, Harvard Medical School

MOST people wish health, and most people do not have it. We have not developed as yet any mechanism by which the disabilities of the sick may be early remedied. We cannot tell for any large group of our population what the extent of sickness is or accurately assign causes for the burden of lost health and usefulness.

Industrial hygiene is the hygiene of the workers in industry; it is concerned with the health of forty millions and more of our people. It is involved only incidentally with the problems of specific industrial disease. It is not so much a thing of itself as it is a way of doing a thing, a way of combating the public ill health, using industrial life as the field of encounter. It carries the art and science of medicine to a great group rather than awaiting the late coming of that group to medicine.

Employers and employees have been given to protesting that personal sickness was a responsibility, even a privilege, of the individual, solely his own concern. It could be that only for an individual who had no place in any social order. It is no longer the height of good form to enjoy poor health.

Statistical evidence regarding the frequency of industrial accidents is staggering. The time loss to workers and their fellows is an impressive and costly total. The loss due to sickness, however, is in the aggregate vastly greater—in many instances five to ten times as great.

It is not the sick man alone who pays—we all pay.

Of non-disabling sickness we can only roughly reckon the extent of severity. Recent studies of the Harvard Mercantile Health Office show that in a number of store dispensaries 60

* Read at the Annual Conference of the Massachusetts Society for Mental Hygiene on the Human Element in Industry, April 7, 1921. Other papers in this symposium were Mental Hygiene in Industry, by Dr. C. Macfie Campbell (see page 468) and Has Mental Hygiene a Practical Use in Industry? by Boyd Fisher (see page 479).
per cent and more of the store personnel make use of the dis­
pensary each month. This finding suggests the incidence of
minor ailments among the populace at large, much of it not
as physically fit as the portion in active work.

All of the disabilities of man are not physical, and the
mental disabilities must be of great concern to the worker for
industrial health. One cannot consider the findings of the
army psychiatrists that 70 per cent of almost two million
men had a mental age of less than fifteen years, even dis­
counting it generously, without realizing that handicapped
minds, like sick bodies, cause industrial wastage and a vast
amount of sorrow and discontent.

Little is known of ways to develop medical service in in­
dustry, but less is known of industrial psychiatry. For the
psychiatrist there is a splendid job. It promises much in the
way of aid in the difficult task of fitting men to the jobs they
can best do and jobs to the men they need. Even with such
an adjustment consummated, industrial discontent will still be
found—but it should be a healthier unrest than we now know
and that day a better one than this.

MENTAL HYGIENE IN INDUSTRY *

C. MACFIE CAMPBELL, M.D.
Professor of Psychiatry, Harvard Medical School

MENTAL hygiene is the natural supplement to physical
hygiene. In promoting the physical health of the indi­
vidual, our interest depends upon the implicit belief that
human life has a value, that the individual cannot carry out
his social duties in the best way without physical health.
Physical hygiene does not concern itself with these special
social duties, but confines itself to seeing that the simple
machinery of the individual is attended to, is repaired after
damage, is kept in good order and not subjected to undue
stress and strain. It is poor economy to wait until the
machine breaks down and then try to patch it up. It is
better to keep it in good working order and to see that it is
not used for unsuitable purposes. From this point of view,
emphasis is laid not so much on the treatment of individual
cases of disease, but on taking the necessary social measures
to prevent the occurrence of disease. In order to carry out
these measures, the physician must have the cooperation of
the community, and this cooperation will depend upon the
community's intelligence and its feeling of social responsi­
bility. For this cooperation, it is necessary that the com­
community should get information with regard to sickness, and
that the individual should feel some interest in promoting
the public health and not merely in safeguarding his own
home.

In relation to such matters as typhoid fever and smallpox,
it is not difficult to put the simple facts clearly before those
who are not familiar with medical matters and to persuade
them of the practical advantages of a pure water supply and
of general vaccination. Sometimes an epidemic is required

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497).
to drive home the situation, to make men pay increased taxes for a water supply or accept such useful measures as vaccination, which may happen to be disagreeable to them on various personal grounds.

The extent to which this conception of preventive medicine has developed is indicated by the fact that practical steps are now being taken, not only against such scourges as infectious diseases, but in relation to many other causes of ill health, and an organized effort is being made to eliminate the preventable causes of ill health in special industries. This movement would hardly be possible were it not that, in relation to the more dramatic facts of infectious diseases, the public had realized their responsibility for preventing what can be prevented and were thus educated in the idea of prevention to such an extent that they realized the advisability of going further and applying their health conscience to the industrial environment. This public conscience, this responsiveness of the community to the facts of disease even when they do not touch one personally, is the greatest encouragement to those who are dealing with the field of mental hygiene, where the situation is more complicated than is the case with infectious disorders, and where there has not been such a long history of intensive study. It is not so long since mental disorder was considered less a disease than a disgrace or a crime. Even now, in some places, the mentally sick person is brought into court on a "charge" of insanity, and a jury of laymen pass on the situation.

The treatment of these disorders has made considerable progress. The study of them now proceeds along the same lines of intensive research as the study of other disorders. We have reached the stage when we feel it our duty to see what can be done in the way of prevention. It may be felt by some that the problem is too difficult, the facts too uncertain, the situation too complex for any one cause to be made responsible, and that the remedies are not sufficiently definite for the public to be asked for cooperation in relation to these troubles. Some of the facts, however, are very definite, and the community should know these facts, even where there is no simple remedy to be proposed. The community at large should realize what influences in general are of importance, in order that changes, where practicable, be made, and in order that the general attitude of the public toward these problems should be as enlightened as possible. It is with this end in view that a national committee and a group of state societies interested in mental hygiene have been organized.

In discussing the general topic of hygiene with non-medical people, it is not necessary to give elaborate explanations. One can refer to typhoid fever and to smallpox, to lead poisoning and other industrial disorders, and assume some familiarity. It is somewhat different when one is dealing with mental disorders, for there is still widely prevalent a rather medieval attitude toward mental disorders, which are considered to be absolutely different from ordinary forms of sickness.

Mental hygiene is not concerned merely with those serious forms of mental disorder which require treatment in state hospitals; it is concerned with those other forms of mental disorders which do not necessarily mean the removal of the individual from his ordinary social environment. A disorder is a mental disorder if its roots are mental.

A headache indicates a mental disorder if it comes because one is dodging something disagreeable. A pain in the back is a mental disorder if its persistence is due to discouragement and a feeling of uncertainty and a desire to have sick benefit, rather than to put one's back into one's work. Sleeplessness is a mental disorder if its basis lies in personal worries and emotional tangles. Many mental reactions are indications of poor mental health, although they are not usually classified as mental disorders. Discontent with one's environment may be a mental disorder, if its cause lie, not in some external situation, but in personal failure to deal with one's emotional problems. Suspicion, distrust, misinterpretation, are mental disorders when they are the disguised expression of repressed longings, into which the patient has no clear insight. Stealing sometimes indicates a mental disorder, the odd expression of underlying conflicts in the patient's nature. The feeling of fatigue sometimes represents, not overwork, but discouragement, inability to meet situations, lack of interest in the opportunities available. Unsociability, marital incom-
paitibility, alcoholism, an aggressive and embittered social attitude, may all indicate a disorder of the mental balance, which may be open to modification. Acute phenomena characterized by unreasoning emotional reactions, such as lynching and other mob reactions, waves of popular suspicion sweeping over a country, may be looked upon as transitory disorders. The same factors that are involved in these familiar reactions play an important part in the development of insanity.

The immediate problem of the physician is to discover the causes of, and the treatment for, these disorders. His social responsibility imposes on him the problem of seeing how far these conditions can be prevented, either by widely diffusing medical knowledge, so that the individual may safeguard himself, or by helping to organize social conditions, so that the individual gets a fair chance of developing a healthy mental balance and so that he is not exposed to undue stress and strain. The most important piece of social apparatus for the prevention of mental disorders is the school system, under whose moulding influence every one remains for a period of many years. In the adult period there seems no more promising opportunity for influencing a large body of the population than that provided in the various industrial units. Although these are organized for production and profit, and the keynote is output and efficiency, the latter need not be incompatible with an interest in health and happiness. From one point of view, the worker is a machine, but this does not need to dehumanize the worker; the industrial organization may recognize that it is important to pay attention to the most valuable and delicate part of the human machine, to that part which makes the man of more than economic value, makes him a spiritual asset to his community. Even from the point of view of output and efficiency, it has been found important to pay attention to the condition of the worker, to the general physical environment, to the elimination of trade irritants, to the opportunity for early attention to minor ailments and injuries. It has also been found economical to study the conditions that determine fatigue, the advantages of rest periods, the suitability of different types of men for different jobs. The keynote of all that work has been essentially efficiency; the interest has been in what the man meant for the work, and not what the work meant for the man. It is the latter question that has become the most important problem in the industrial world at the present time. It is not because of lack of intelligence or defect of skill that the worker develops the symptoms referred to above. It is often in relation to the poor amount of satisfaction he gets out of life. It is in relation to the balance of his instinctive cravings and of his emotional reactions; it often depends on an unsatisfactory relationship to his fellows, his employers, his family.

To illustrate these rather general remarks, one may take a concrete situation. Chronic alcoholism has been a distressing personal and social symptom. The treatment has been prohibition. The question of why the individual reached out for this chemical stimulant has been a matter of secondary interest. Was it a morbid craving, a manifestation of original sin; or was it a habit casually acquired, but difficult to break; or was it one way of getting cheaply a sort of satisfaction that none of the ordinary opportunities of life offered him? Did the alcohol dull vague feelings of depression and discontent, and perhaps in addition supply a glorious feeling of satisfaction and raise him into a different world from the humdrum atmosphere of the factory and the depressing atmosphere of the crowded home, with the careworn housewife and the noisy children? The alcohol satisfied some cravings apparently, only temporarily, it is true, and in the long run at a great price, the price of deterioration of character; but the cravings of the individual, the longings for some sort of exhilaration and freedom from care, were perhaps fundamental human traits that found little means of honest satisfaction in other directions. Did the chronic alcoholic live in a community that offered him decent opportunities for satisfaction along healthy lines, and had he been trained during his developing years to be able to utilize these sources of satisfaction? If the community offered few worthy opportunities for satisfaction along healthy lines, and had he been trained during his developing years to be able to utilize these sources of satisfaction? If the community offered few worthy opportunities for pleasure and recreation, then the chronic alcoholism could be looked upon as symptomatic of a faulty community organization. It is, of course, comforting for the community to be able to lay the blame on the alcoholic, and to
be blind to the fact that we are partly responsible for the organization of the community. But it is surely not enough to punish the alcoholic or segregate him or banish his liquor; the fundamental problem is not dealt with until we know the condition of which the alcoholism is merely a symptom. For the purposes of prohibition, of removing opportunities for alcoholic satisfaction, an army of officials must be employed, with an elaborate organization and skilled direction. If one looks for a comparable expenditure of money and thought directed toward supplying other sources of satisfaction to the ex-alcoholic, one is rather disappointed. Many persons who are seriously offended by the sight of drunken men on the streets are absolutely insensitive to the fact that alcoholism may have deep-seated social causes, with regard to which they have a certain personal responsibility.

In many of these cases of chronic alcoholism, we might find it worth while to study the conditions of the man’s life, and to see what opportunities there were for a healthy outlet of his natural cravings. What are the satisfactions that a man craves? He enjoys the simple pleasures of the satisfaction of the appetites, pleasure in work, pleasure in family life, pleasure in games and other recreations, and pleasure in social intercourse; he enjoys a feeling of self-respect, that comfortable feeling that life is worth living and that what one is doing is worth while, whether it be as wheel greaser or locomotive engineer.

As to the possibility of getting pleasure out of one’s work, conditions vary extremely. The average professional man is engaged in work that was deliberately chosen, that appeals to him and corresponds to his native disposition. He gets joy from it, although in every kind of work there are periods of hard drudgery. Such periods are, however, rendered tolerable by the knowledge that they are essential to a successful career; the knowledge of the rewards—academic, social, or financial—that the labor may bring carries one through the periods of drudgery. But joy in work, which belongs to the skilled craftsman or the professional worker, is a luxury that many other workers do not have. Many a worker has to content himself with work not deliberately chosen, but thrust upon him by constraint of the social environment. The nature of the work may be such that there is little possibility in it of giving satisfaction to any one with average aspirations.

In the modern industrial system, large numbers of men are thus engaged during a large part of their working hours, working merely that they may live, getting no special pleasure from the work, looking for satisfaction to the period of the day when they are released from their drudgery. The possibility of satisfaction after work depends, first, upon absence of excessive fatigue; secondly, upon certain economic conditions; thirdly, upon decent opportunities in the environment for recreation; fourthly, upon having had the training that enables one to utilize the means of satisfaction available in the environment. There may be wonderful libraries, picture galleries, and symphony concerts close at hand, but unless the individual has been trained to utilize such opportunities, they are practically nonexistent. One simplest source of easy satisfaction was the saloon, where the worker could quickly get a transitory feeling of well-being. The leisure of many is spent in perusal of the newspapers, and there they get a vicarious satisfaction in reading of divorces among the rich, of daring crimes, and highly emotional presentations of racial, religious, and national issues. The presentation of social life that is found in the newspapers can hardly be said to be a well-balanced presentation of the main issues of the times. If not inclined for reading, the worker may go to the moving pictures, where he sees a still more lurid presentation of human life, and where he can, for a while, revel in the imagination of living in palatial surroundings, indulging in doubtful practices, and having a highly romantic and thrilling time. In summer he may get additional emotional excitement from being a spectator at a popular ball game.

Man is wonderfully adaptable, and many men cheerfully continue in toilsome, dangerous, monotonous occupations, creatures of habit, doing as their fathers have done; but it is important to remember that in these routine workers there are the same fundamental cravings, latent and liable to express themselves some day in a rather disconcerting form. Others may feel the monotony of their task, but get some interest from the relationship of their work to the total work
of the plant, or from association with their fellows, or perhaps from some personal attachment to an employer. Others do not get their satisfaction from these objective sources, but, while working at monotonous tasks, live in a world of their own imagination, day-dreaming of romance and riches. In others it is the religious attitude toward life that makes the situation tolerable. The lack of satisfaction seems unimportant and the discouragements of this life seem trivial in the light of the fuller life that is promised by religion, which reconciles the worker to social inequalities and enables him, under hard economic and social conditions, to continue cheerfully productive.

Some get a touch of romance and glory by joining social organizations in which they are nominated to posts with high-sounding names. Others have no such compensations, but drift along in a rather dull, sodden way, until they, too, find a source of some satisfaction; their minor ailments begin to engross their attention, they frequent the dispensaries, and a long period of intermittent invalidism may ensue. After all, to be an invalid has its gain; our misery entitles us to some respect—it may even entitle us to some compensation.

Other workers, of different temperament and tradition, react to their working conditions in a way that has still greater social importance. They, too, indulge in stimulants, but there are other stimulants than alcohol; one may be intoxicated with words as well as with wine. The stimulus of cheap oratory, of fiery propaganda, of dazzling promises, of idealist conceptions, may make the head swim, the pulse beat quicker, the eyes see red; there are certain highly intoxicating social doctrines, which hold out hopes of a new order, in which the promises of religion are to be partly realized in this world. Enthusiasm for these theories leads to the opposite of the resignation that may go with religious belief. The new order is to be realized as soon as possible; persons, institutions, beliefs that stand in the way arouse keen resentment and, each man’s hopes and hates being reinforced by those of his fellows, a powerful force develops, which is the cause of much social rumbling. These dazzling theories take little account of realities, of biological facts, of economic laws, of historical development; men whose latent cravings have had little outlet for many years, whose pent-up emotions have made it difficult to observe accurately and to judge impartially, are easily intoxicated with economic, social, and political theories that correspond to their wishes, and develop a habit of wishful thinking, which is perhaps more serious than a drug habit.

Here, again, we may try prohibition, may close the saloons of oratory, make it a penal offence to offer others a draft of intoxicating promises and theories; but the question again arises, will we do more than merely close another outlet for the underlying cravings of human nature? The subject of mental hygiene in industry is too wide to be covered in a short address; the above remarks merely illustrate an aspect of the problem that is too much neglected, and deal with industry from the point of view of what the work means to the man. From the point of view of what the man means to the work, there are many interesting problems that are attracting attention; the question of fatigue, the problem of placing those who are constitutionally unstable or poorly endowed, of utilizing those who have already had a breakdown, of offering good facilities for the early treatment and care of mental and nervous disorders, the best methods for studying intensively the special abilities and disabilities of the individual, are topics on which much has been written and much work remains to be done. But the aspect of the problem that has been discussed is the one that has the greatest social importance, the one most closely connected with the question of social stability.

We all crave quick and sure remedies for our troubles; the great sales of patent medicines bear witness to this craving. So, with the maladies of the body politic, we wish a definite diagnosis and a specific remedy. Matters, however, are not so simple. The mother brings her child for examination on account of a single symptom, but to understand the symptom one may need to study the whole child; one may even have to study the parents and the home atmosphere and, instead of giving the mother the desired bottle, one may have to explain to her the relation of the symptom to a complicated social situation. Whether or not she will utilize this explanation will depend upon many factors.
A school system that takes stock of the minor ailments and nervous disorders of the children, and follows the children from the school clinic into the home by means of nurses or visiting teachers, can exercise a remarkable influence on the mental hygiene of these homes. For the adult, the only analogous situation would be that in which the industrial clinic, aware of the importance of mental factors, developed its social work in the same way. To understand the symptoms of the industrial worker, it may be necessary to consider, not only the usual facts dealt with in industrial hygiene, but also the amount of satisfaction got out of work, the atmosphere of the home, the opportunities supplied by the general social environment for healthy social intercourse and for intellectual and aesthetic enjoyment. The industrial clinic, if interested in mental hygiene, might exercise a social influence comparable to that of the school. Unfortunately the worker is on the defensive, suspects exploitation, resents interference; some day perhaps the industrial workers themselves will take the lead in encouraging the study of the conditions of mental health in the industrial worker and in constructive suggestions as to social arrangements.

**SUMMARY**

The mental health of the industrial worker depends upon the complicated interplay of the individual personality, the specific conditions of the industrial task, the economic factor, the domestic and general social environment.

When dealing with the disorders of the individual worker and of groups of workers, it is not always possible to isolate single symptoms and supply specific remedies, medical or social; and one must be prepared to make a very detailed analysis, and the remedies may be of slow evolution. So far there is not available enough well studied material for useful constructive suggestions to be made; to gather such material is a task of immediate importance.

The development of an enlightened public opinion on these topics would be a most important contribution to the mental health of the community and to social and economic stability.