

PSYCHOLOGY

"Nerves" Take Toll in Mishaps

Noise, Illness, Communism, and Rush of Machine Age Are Blamed, But Real Cause Lies in Unhealthy Leisure

By MARJORIE VAN de WATER

INDUSTRY has an invisible enemy.

An intangible, insidious, but nevertheless important foe helps to post up those red figures on the wrong side of the ledger by cutting down efficiency in the personnel, and by increasing the accident rate, even by sacrificing the health of laborer and executive alike.

This unseen thrower of monkey-wrenches into the human machinery of business has been recognized by a British scientist, Dr. Major Greenwood, professor of epidemiology and vital statistics at the University of London, as that vague something that the layman calls "nerves."

Any schoolboy knows what is meant by this term, and he knows that it does not refer to the physiological mechanisms that serve to carry messages from the sense organs of sight, hearing, touch, and so on, to the brain. Those are nerves, but not "nerves." He may not be able to give you a definition, but he knows quite well what is meant when his mother says, "Johnny, stop blowing on that horn, it gets on my nerves!"

"My nerves can't stand the least bit of excitement."

"I never can do my best on an examination—it's my nerves."

"Edna can't stay alone at night, her nerves are so bad."

A Fourth are Nervous

Such expressions are perfectly familiar to everyone. And the symptoms that the term represents are common, too, Dr. Greenwood found. Many more than a fourth of those actually doing the work of the world in factories, offices, and government departments have "nervous" symptoms.

Dr. Greenwood was led into the appraisal of "nerves" in industry first through a study of the trivial accidents which cause so much waste of time and material.

Accidents do not just happen, he discovered.

If industrial accidents were pure ac-

cidents, they would be just as likely to happen to one person as another. They would be distributed by chance like the numbers in a lottery or like the numbers in repeated throws of unloaded dice. If on one day an individual had had an accident, that individual would be no more and no less likely to have another accident the next day than any other worker. Or, to use the language of insurance men, no one person would be a better or worse accident risk than another.

Not Distributed By Chance

Industrial accidents are not thus impartially distributed, however. Here is what Dr. Greenwood discovered about the actual distribution of these mishaps. Only trivial accidents that would not take the worker away from his task were considered, because, of course, if he left the job he would not be exposed to the chance of accident any more for the time being.

Of 648 women munition workers—Dr. Greenwood was attached to the British Ministry of Munitions—447 had no accidents at all during the period of five weeks studied. This number is much higher than would be accident-free if the accidents were distributed by chance. On the other hand, twenty-one of these women had three accidents each although by chance you would not expect more than seven to be so "unlucky." And three of the women had four accidents each; two had as many as five. These high scores would not be attained by more than one individual in a chance distribution.

Similarly, the accidents of machinists over periods of three and six months were most unevenly distributed. Of 414 watched for three months, 296 were accident free. But at the other end of the scale one man had eight accidents, another had six and four had five. In a chance distribution of the total number of accidents occurring, no one person would have more than four, but only 256 would be entirely without mishap.

"There is an even simpler way of demonstrating that variations of personal liability are of great importance,"

Dr. Greenwood said in a report of his study to the scientific journal, *Human Biology*. "If the cards are fairly dealt, there should be no correlation between the number of trumps I hold on Monday evening and the number of trumps I hold on Tuesday evening. If accidents are random happenings, my score in one month's work ought not to be correlated with my score in another month's work. Actually there is quite a substantial correlation between the accident scores of different periods."

So the little jinx who causes accidents is not a blind goddess who is likely to attach herself to anyone. Rather she follows the footsteps of those who for some reason attract her. The mysterious attraction is "nerves," Dr. Greenwood concludes.

Psychological tests which can be used to sort out the emotionally unstable from a group of persons tested can also be used to discover those who will have a high accident rate.

The employer cannot eliminate accidents in industry simply by clearing up this situation of "nerves" among his workers, Dr. Greenwood shows, however. The reason for this is quite simple, if not immediately obvious and lies in the fact that, as Dr. Greenwood says:

"The nerves' of employers are rather more important than the nerves' of employees."

Lost Time

Therefore the plant having the greatest incidence of "nerves" among employees is not necessarily the plant in which the greatest amount of time is lost through illness, even illness certainly referable to "nerves."

What is the reason that "nerves" have become so important in our modern industrial civilization? The cause assigned by Dr. Greenwood is rather striking and most unusual. He does not join with those who denounce the bustle and noise of the city, the hurrying thousands in the rushing subway trains, the mania for speed in the modern powerful automobile, or the artificial drive placed upon workers who must keep pace with rapidly moving industrial machinery.

"In this age of the world, 'nerves' are more important than in the age of William the Conqueror not because the pace of life is faster than in 1066 but

for the precisely opposite reason. It is so much slower. Life in old England may have been merrier but it was certainly shorter than it is now, the struggle for bare existence keener. Hunger, according to a mediaeval saying, was the Englishman's plague.

"There is nearly always some truth in popular harshness and folly; the sneer of the tough-minded at the troubles of the tender-minded, whether called vapours, hysteria, or 'nerves,' to the effect that only idle people have time to indulge their 'nerves' has a percentage of truth. 'Depend upon it, Sir, when a man knows he is to be hanged in a fortnight it concentrates his mind wonderfully' is Johnson's presentation of the same common sense philosophy.

Too Busy to Brood

"When a man is struggling for his life in deep water, he is either too busy to entertain the haunting thoughts which led one of the subjects of the Board's investigation to dissect her actions and then 'dissect the dissection—till I nearly go mad,' or he just drowns. Where the commonsense philosophy lets us down is in not enabling us to forecast which event will happen. But, statistically speaking, it does not matter; the water test would much reduce the incidence of 'nerves' upon a living population and it was applied in the past.

"Now we do not apply this test. Hardly any people in this country [England] speaking statistically, are in imminent peril of actual starvation, but a great many millions of people in this country have only too much time to dissect the dissections of their feelings. Not only those on the dole, but those at work for which they are ill-fitted but which is the only work available. . .

"Millions of people now have leisure for reflexion. They may not be acutely hungry, they are not in imminent peril of death, but they are insecure.

"Every Englishman over 40 remembers the war-time atmosphere of living in a draughty railway waiting room, waiting for the next train, not knowing when the next train would come. One had plenty of time to stare at and be irritated by the ugly advertisements, to curse the noise of other people's trains, to poke the fire without raising a glow from it, but not time to settle down to read comfortably. We fancied peace would dissipate that atmosphere; it has generalized it. A very large minority of the whole nation are sitting in that waiting room; the time may come when



ONE OF THE WORLD'S NOISIEST SPOTS

Remote from the clangor of cities and the din of steel mills, Niagara has more than its quota of noise, even in the dead of winter. The men in the foreground are estimating with an electrical instrument just how noisy the great cataract really is.

it is a majority. These people are turned in upon themselves; like the proverbial yokel, they sit and think or sometimes they just sit.

Not Trained for Leisure

"They have leisure, but they have not been taught to use that leisure. Uneducated townfolk cannot amuse themselves, and the amusements provided for them, especially those provided by cinema corporations, are remarkable. . . . 'Passionate' scenes at the 'pictures' are rigorously censored, the details of divorce court must not be printed. But the world and its adolescent children may see realistic pictures of men burning to death in aeroplanes or being shot by files of soldiers."

What Dr. Greenwood says of conditions of idleness and enforced leisure in England is true in very nearly the same degree of conditions here.

Even among the employed, very few are working under pressure all their waking hours. Practically every one has a great many hours for his own devices.

Plenty of time here, too, for "dissecting the dissection." There is a real need for most of us to learn to find interest and occupations for these peri-

ods of enforced leisure, as well as for the welcomed leisure that comes along with the shortened work day and abbreviated work week. Educators suggest that with the aid of the public library and free extension courses in connection with the public schools that even such times which Dr. Greenwood likens to train-waiting may be turned to profit. Others point to the value of sports and hobbies and such simple, fascinating skills as wood-carving and weaving.

"The seed of 'nerves' is planted in most of us," Dr. Greenwood warns. "We water it with an unhealthy leisure and manure it with bizarre excitants and, when the crop is raised, denounce pneumatic drills, motor-hooters, communist Sunday Schools, psycho-analysts, everything and everybody but the right reason."

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Antwerp, Belgium, is getting ready to celebrate the completion of two tunnels under the River Scheldt, one for pedestrians and one for vehicles, which will at last enable the city to spread to the left bank of the river.