

Research Environment

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AN ABSTRACT

Although it is commonly recognized that physical environment affects the productivity of ideas, it is very difficult to say just what specific physical conditions are most salutary to the generation of an idea involving industrial research. One thing, however, seems fairly certain: the research worker cannot "work unto himself alone." Exchange of ideas with others, through conversation or reading, is absolutely essential. To this end, a library well ventilated and lighted should always be close at hand and the worker given plenty of opportunity to make use of it. This method of gathering data should be augmented by conferences with other workers and authorities in related fields.

After the facts have been collected, the production of a new pattern from them cannot be hurried, nor the worker harried. An environment free of irritation is the prime requisite for an efficient solution of any research problem. Too often this environment is entirely lacking, and freedom from irritation is often sought through reading detective stories, or attending motion pictures. In an effort to take the edge off his worries (frequently economic and unsolvable until he makes more money) the worker finds that they still hang over his head like a Damocles' sword. Instead of feeling mentally refreshed, ready to tackle once more the research problem which is his job, he finds himself mentally exhausted. Concentration becomes laboured and forced, a thing of less and less moment. How can the tired mind function efficiently?

If only we could reproduce in a man's working hours the feeling of quiet and freedom from irritation that most people enjoy just before the day's grind—that clear early-morning feeling, relaxed and untrammelled with minutiae. An approximation of this state may be artificially but readily produced by providing the research worker with a comfortable room, air-conditioned, well lighted, free from a telephone, with sound-proofed walls and a lock on the door. Restful furnishings, and a pleasant view from the windows are helpful addenda. Few men are capable of continuous pattern-making for more than a few minutes at a time, and pleasant surroundings in contrast to drab ones interrupt the mind without irritating it. They allow the mind to return to the problem on hand refreshed rather than exhausted.

But the worker needs more than a pleasant place in which to think. He needs exercise. A convenient shower bath helps on sluggish days; vigorous physical labor in the plant does no harm and may be beneficial. Then, too, a change of scenery from time to time during the year (the traditional two-week period is viciously uneconomic) will keep him from growing stale and unprofitable.

Why not put our research worker on as efficient a working basis as we do the prize fighter. At present we expect him to do creative work on a nine-hour-daily production schedule: under such conditions he operates only fitfully after great mentally-destructive struggle against irritations. Apparently we can change this state of affairs, we can increase his momentary optimum of accomplishment if, instead of keeping him constantly straining against irritations, we provide him with a favorable environment. Mental relaxation, attained through lessened financial worry, restful surroundings, frequent conferences, frequent vacations, will clear the cluttered, harassed mind and leave it relaxed and ready to form spontaneous, new patterns of thought.