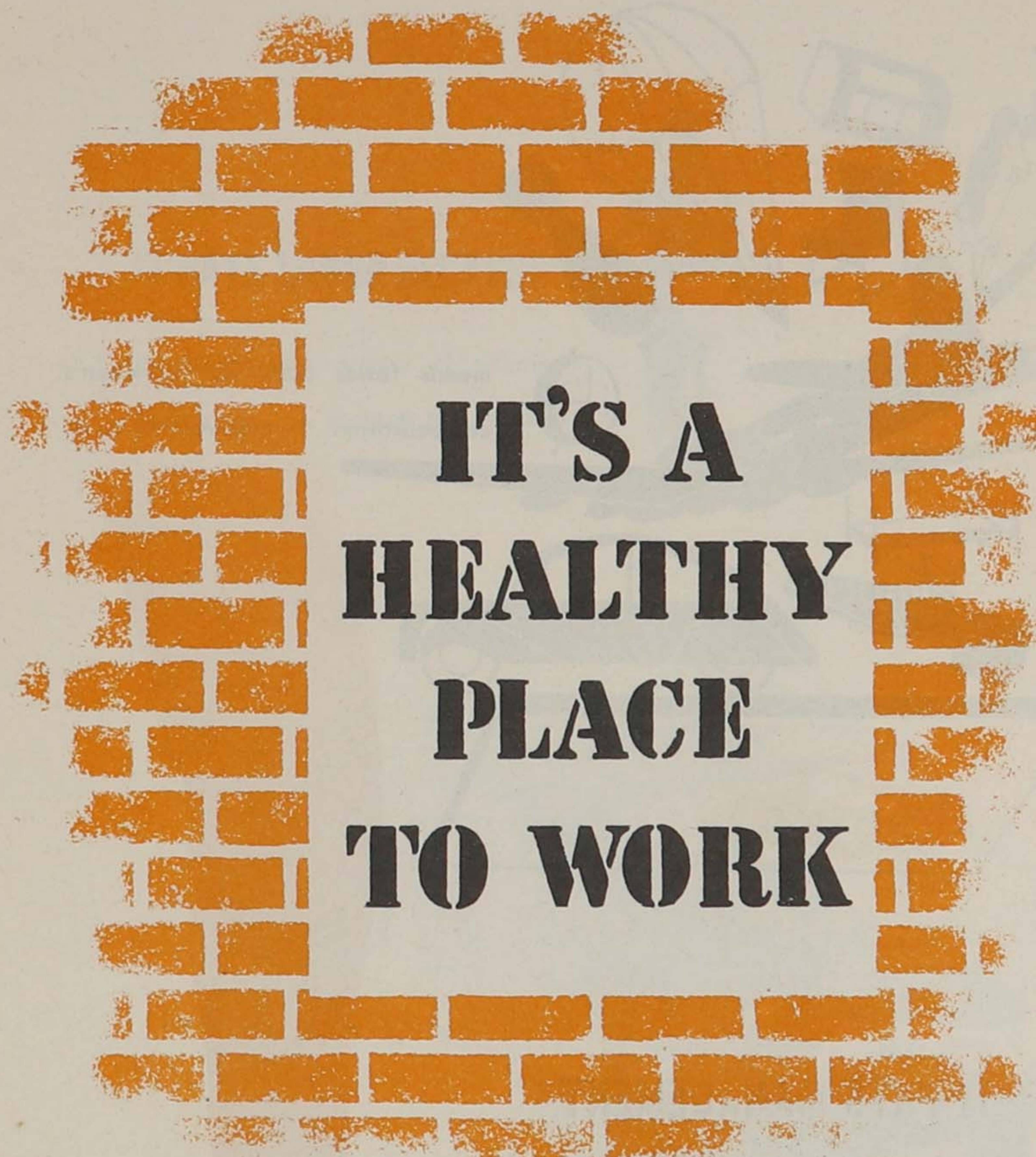


**AT YOUR SERVICE**

TAKAHASHI TRADING CO.  
1661 POST STREET  
SAN FRANCISCO 15, CALIF.



**IT'S A  
HEALTHY  
PLACE  
TO WORK**

**INDUSTRIAL HEALTH PAYS!**



means lower costs for workmen's compensation . . . cuts training costs.

## IT PAYS MANAGEMENT BECAUSE:

it increases production by cutting down man-hours lost from work . . . keeps skilled workers on the job . . . keeps employees satisfied and therefore efficient. . .

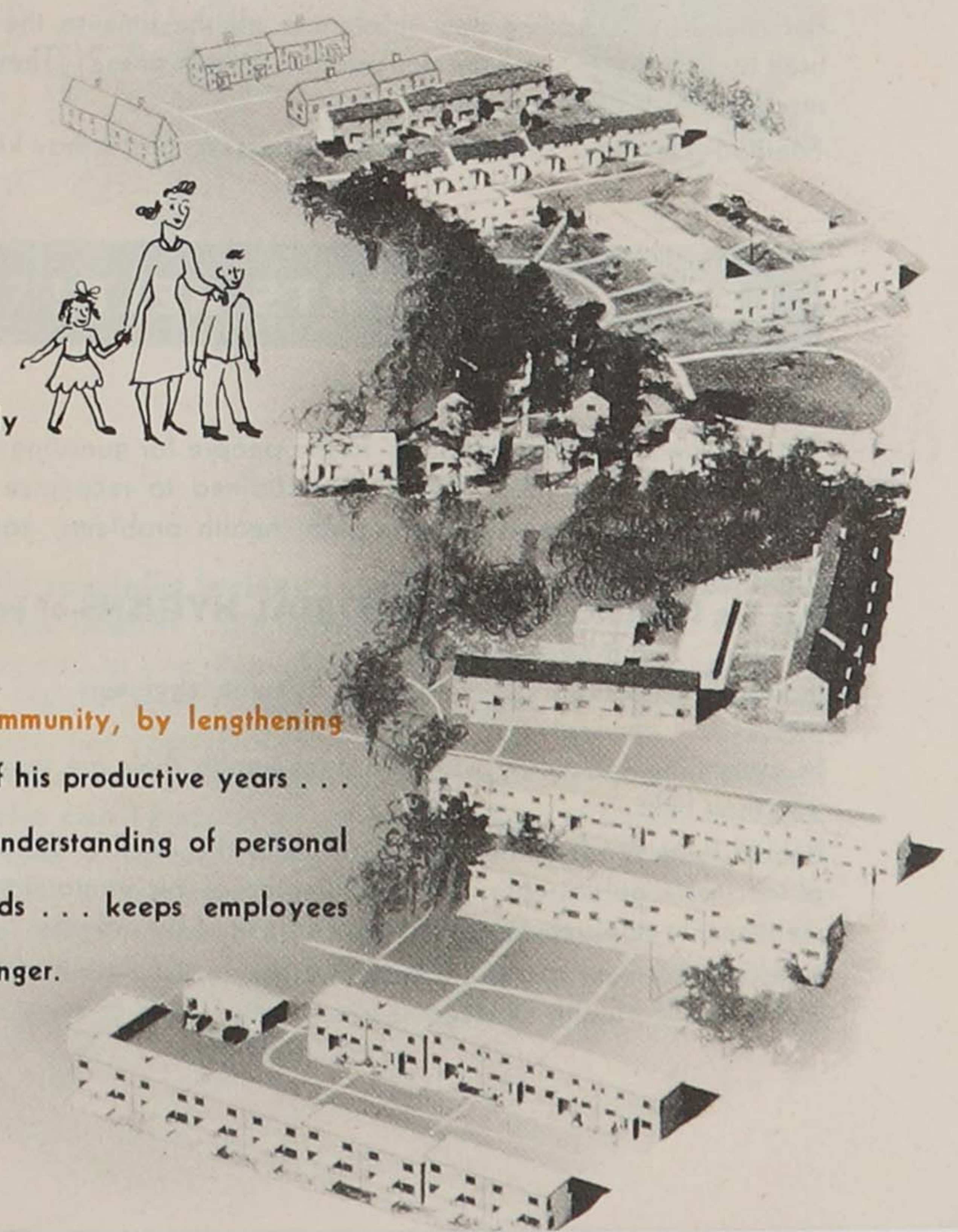


## IT PAYS LABOR BECAUSE:

it prevents the misery of sickness and injury . . . protects the worker,



his family



and his community, by lengthening the span of his productive years . . . develops understanding of personal health needs . . . keeps employees earning longer.

**Industrial Hygiene is the weapon with which modern science attacks this problem.**

Health hazards in industry can be overcome . . . science knows how! Management can provide safeguards against them . . . workmen can protect themselves . . . if they know how.

**Does only the old-style, health-neglectful plant have industrial health hazards?** Not at all. Even the modern, progressive plant with a good medical department may have hidden dangers to the health of its workers.

Science has licked many of the old menaces. It's a poor mine nowadays that lets its workers get silicosis. It's a poor plant that lets its workmen get lead poisoning.

But chemistry is adding new substances all the time to the materials used by industry. Some are dangerous. Which ones? They can't be recognized by sight or name.

Methods change. Change a harmless process, and it may kill workers.

**LET THE EXPERTS HELP!**

There is an agency responsible to the people for guarding the health of workers . . . staffed with experts, trained to recognize industrial health hazards, able to solve in-plant health problems, equipped to wipe them out.

**It is the DIVISION OF INDUSTRIAL HYGIENE of your State or City. Let it serve you.**

Industrial physicians . . . industrial hygiene engineers . . . industrial nurses . . . chemists . . . dentists . . .

In everything connected with industrial health they are ready to give you their help.

Behind them are laboratories . . . to help the doctors diagnose cases of occupational disease, to test samples of air containing invisible menaces, to analyze dangerous materials used by industry.

And behind them stands the Industrial Hygiene Division of the United States Public Health Service.



**Your Department of Health  
Industrial Hygiene Division**

*the doctor*



*chemist*

*industrial engineer*



**U. S. Public Health Service  
Industrial Hygiene Division**



**Is the right specialist lacking to solve your particular problem of industrial health?** The national industrial hygiene unit will lend such a specialist to you, through your own local division of industrial hygiene. He will bring to your problem experience gained in dealing with situations like yours throughout the Nation.

**Is the problem in your plant so complicated that the local laboratories can't handle it?** It can be solved in the big industrial hygiene research laboratories of the United States Public Health Service. They're working all year 'round . . . adding to the scientific knowledge about industrial sickness . . . learning the danger or safety of new industrial methods and materials . . . developing new and better ways to deal with the old dangers.

# HOW THE EXPERTS HELP

Ask for the help of your industrial hygiene division to clear up a dangerous or suspected condition in your plant, and you will get—

## a team of experts

Each member will look at your problem from the angle of his own knowledge . . . work on it with his own special skill. Cooperative attack is what it takes to solve problems of industrial health.

### The Medical Problems

It takes an industrial physician to tackle industrial sickness in a plant. Skin troubles caused by cutting oils, acids, solvents, cleansers. Troubles caused by breathing dangerous dusts . . . asbestos, silica, bits of metal, coal dust, animal hair . . . to mention just a few. Troubles caused by breathing dangerous fumes, vapors, gases . . . and the list of chemicals that give off such substances is long. Eye troubles, digestive disorders, "colds" . . . all the many ailments which may knock a key worker off the job. Doctors must know the processes and materials of industry before they can diagnose with certainty the ills that result from them.

Your own plant physician can receive valuable help from the doctor-member of the industrial hygiene team.

But if you have no plant physician your plant especially needs this service. How many of your employees are out today? Do you know the causes?

Take this case, just as an example:

A mysterious wave of illness swept through a plant . . .



manufacturing parachutes. A fifth of the working force of 675 women were sick.

"Something-l-ate" was blamed for the trouble by most of them.



But the plant nurse wasn't sure. And new cases kept developing.

The nurse knew she needed help. She called upon the County Health Department. Public health doctors were sent. They examined all the sick women . . . studied each case . . . checked and found there was no epidemic in the community, none of the same kind of illness in families of the sick workers.



Each case was studied carefully.



The teamwork of the industrial hygiene unit went into action. The State engineers were called in.



Many investigations were made.

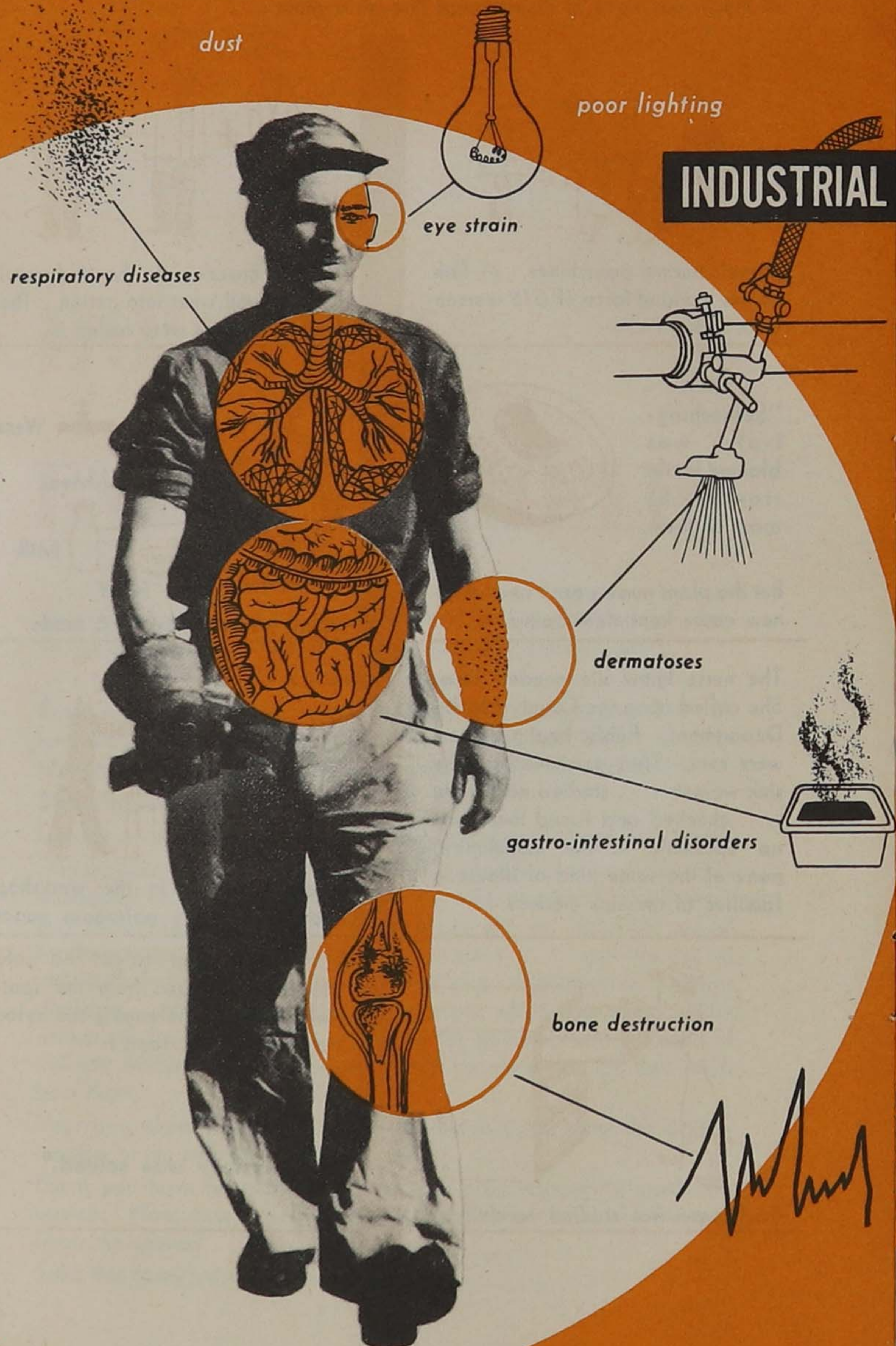


Samples of air in the workshop showed a highly poisonous vapor

. . . more than twice the safe amount, generated from the spot-ting solution for cleaning the nylon parachutes . . . toxic!

The mystery was solved.

# INDUSTRIAL HEALTH HAZARDS CAN BE CONTROLLED



engineer

doctor

chemist

## WITH THE HELP OF THE TEAM OF EXPERTS

## THE ENGINEERING PROBLEMS

### What can the industrial hygiene engineer do for the health of your workers?

Engineers on the industrial hygiene team are concerned with everything in your plant that might harm workers. They will investigate ventilation, unnecessary noise, poor lighting . . . find out whether air is being made poisonous by dangerous dust, fumes, vapors, gases . . . look into conditions which may be causing skin disease or other ailments among employees . . . investigate every step in the process of manufacture for health hazards.

You can count on the engineer members of the industrial hygiene team to be interested in two things only . . .

#### **discovering whatever health hazards exist in your plant . . . devising ways to control or correct them.**

More. The industrial hygiene engineer can be depended upon to clear up unhealthy conditions in the most economical way. Finding a problem of dust control, he may recommend installation of a patented system . . . but, if it will work just as well, he is likely to suggest a simple system that can be built cheaply in the plant.

And he can coordinate all community facilities to help clear up a dangerous situation in your plant.

## ANALYZING INDUSTRIAL DANGERS

The physician, the engineer, working to clear up a dangerous industrial condition, have behind them the industrial hygiene laboratory. Here skilled chemists make the analyses upon which doctor and engineer depend.

Examinations of personnel by the industrial hygiene team doctor have to be backed up by laboratory analysis of blood, of urine, other body secretions. The industrial physician employed by a plant, too, often makes use of this service.

In one eastern plant, recently, the doctor suspected that some of the men were being poisoned by mercury. He sent urine specimens to the state industrial hygiene laboratory. His diagnosis was confirmed by the chemists, and he could go ahead confidently to give the right treatment.

And the engineer's observations at the plant must be backed up by a whole series of tests in the laboratory . . . tests of air samples, to see whether they show an overload of poisonous substances . . . tests of raw materials, of solvents, paints, and so on, to see whether anything used in the process of manufacture is making men sick.



## Improving your nursing service

The industrial hygiene division of your health department is ready to help you establish a nursing service, or improve the one you have. Ask for assistance . . . and the nursing consultant will come and make a study of your plant, with the purpose of solving its specific problems.

The plant too small to warrant a doctor in full-time service can furnish adequate medical care for its employees with a doctor part-time or on call and a well-planned nursing service.

But industrial nursing is a special field, needing special knowledge and skills. Management can expect the full benefits of a nursing program only if it is staffed with nurses who understand the materials, processes, and illnesses of industry. The nursing consultant will help you find such qualified industrial nurses.

If your plant already employs nurses, the nursing consultant can still be very useful to you. For through this consultant your own nurses can keep in constant touch with the practices and methods of the most successful nursing services in your industry. They have only to ask for this help.

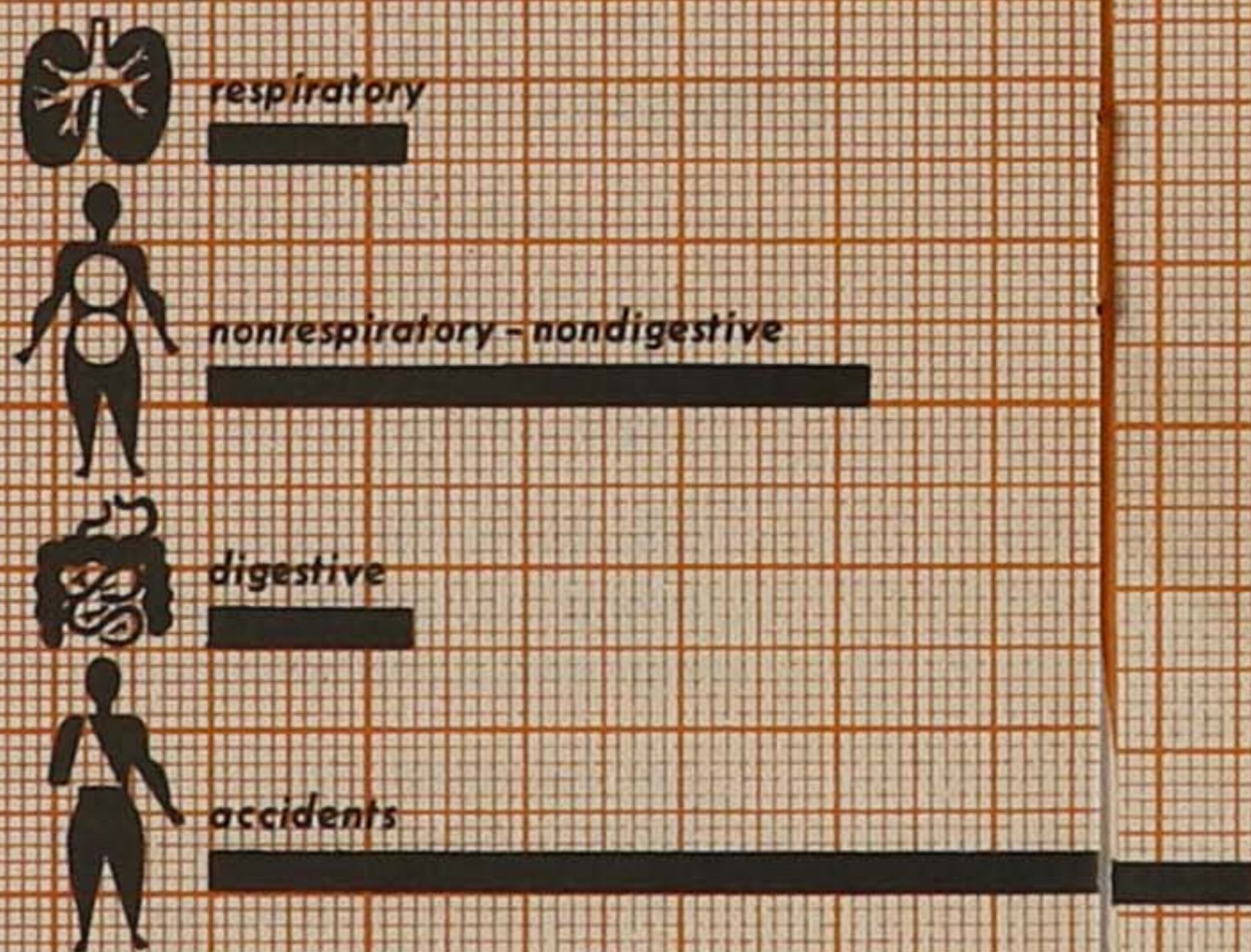
But your budget for health protection doesn't permit a nursing service? Let the nursing consultant study your problem. If a part-time industrial nurse is the answer to your needs, the consultant will make arrangements for you with the proper community nursing agency.

How big should a plant be, to need nursing service? The need is measured really not so much by the plant's size as by the dangers its workers face. But practice has shown that a plant with a hundred employees may profit by having a full-time nurse. Where from 300 to 600 persons are employed, it's best to have two or more nurses. And at least three nurses are necessary for the plant with a thousand workers.

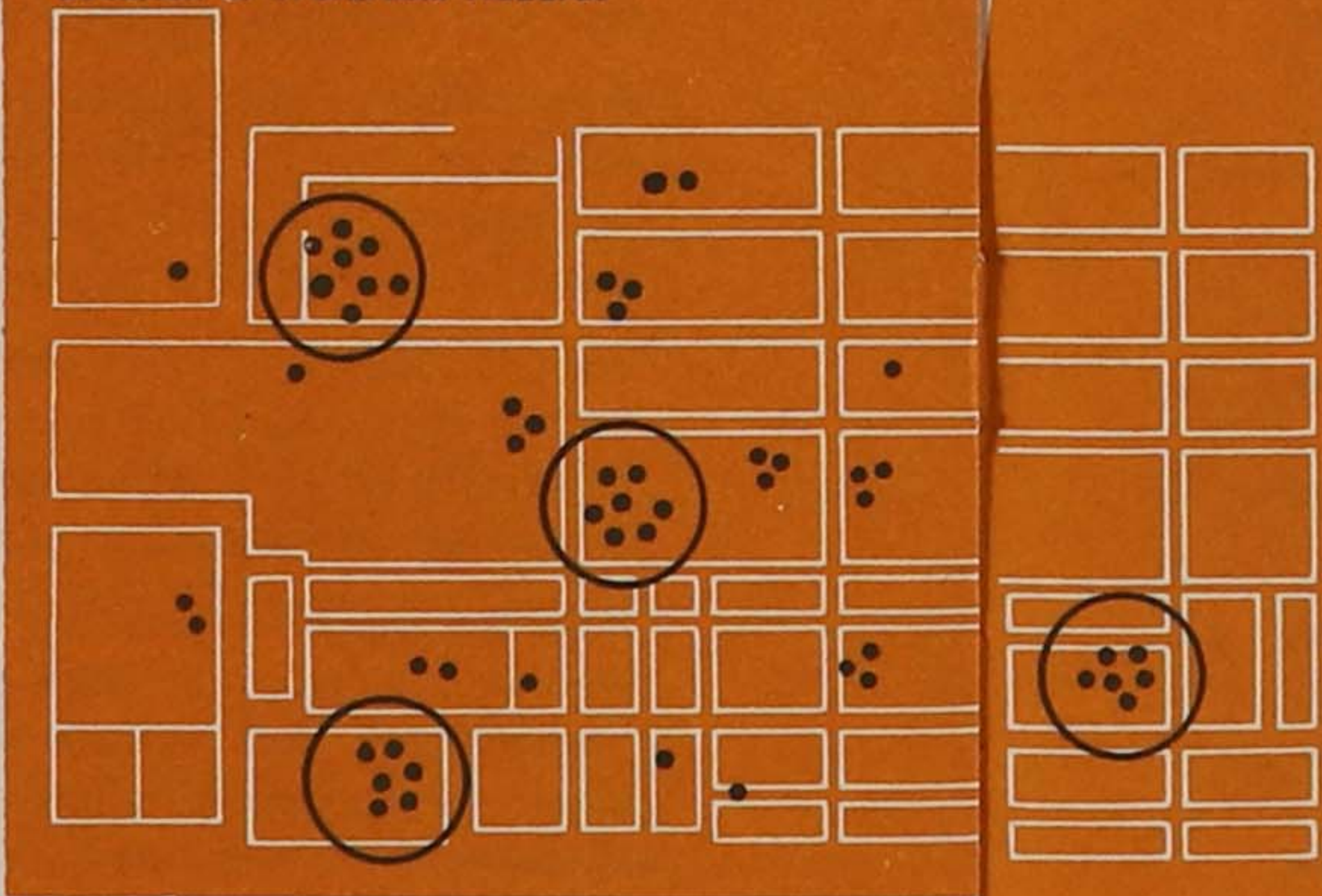


**KNOWLEDGE THROUGH RECORDS:**

*Disability Rates by Cause*



*Location of Workroom Hazards*



**Individual  
Sickness and  
Accident  
Record**

<b>SEVERE INJURY</b>		<b>SURGICAL ENTERED</b>	<b>SHIFT</b> 1 2 3
<b>NAME</b> GIBOROROWSKI, Joseph M	<b>DATE OF ONSET</b> Tue. June 6, 1939		11:15 A.M.
<b>ADDRESS</b> 14 S. Potomac St.	<b>DATE OF REPORT</b> " " "		11:20 A.M.
<b>CLOCK NO.</b> 1-174	<b>PLANT</b> E.A.	<b>AGE</b> 31	<b>DEPARTMENT</b> BODY
<b>FOREMAN</b> Draper	<b>OCCUPATION</b> Utility Man	<b>LOCATION</b> PQ-18-19	
<b>EMPLOYEE'S STATEMENT</b> "I was discing, when something struck me in the eye. I think it came from a workman next to me who was grinding. I was not wearing my goggles"			
<b>DIAGNOSIS</b> Metallic foreign body deeply embedded in cornea, right eye, edge of pupil, 4 o'clock			
<b>TREATMENT</b> Surrounding corneal tissue appears burned. Foreign body is deeply embedded close to the pupil. ---send to specialist			
			<b>TREATED BY</b> Dr. F. M.A.
Sent to Dr. Anderson, -- left 11:40 A.M. returned 1:10 P.M.			



Your plant employs watchmen to guard against theft or damage to property. Modern, progressive plants are employing another kind of watchman . . . a watchman to catch—

**the thief of time . . . the thief that steals man-days from production . . . costly, wasteful, avoidable sickness. Medical records and reports are to your plant what bookkeeping is to your business office. Like cost accounting, they're a wall against waste . . . waste of time and money.**

**How can you employ this watchman to guard your plant?**

You can call upon your industrial hygiene bureau to plan for you and help your medical department set up a sound, modern system for keeping track of health and safety.

A good system of industrial medical records covers every employee in the plant from the day he's hired to the day he leaves. It shows the record of all his injuries and illnesses, and their duration. It makes possible proper job placement in relation to physical condition.

When this injury-by-injury, sickness-by-sickness record is summarized for the whole plant, spot-mapped to show which departments have the most sickness and injury . . . you have another thing of great value. For your safety director, your engineer, and your medical department have the guidance they need to do their work efficiently. Corrective measures can be taken when they're least expensive and most effective . . . before serious trouble strikes.

**It sounds complicated and expensive?** But it isn't. The medical director in a major division of one great corporation has found that it takes little more than a minute per case to keep an extremely effective record system going.<sup>1</sup>

Already sickness and injury records are being kept on a large proportion of American workers. Your plant, too, should be among those which protect themselves and their employees with this modern weapon of knowledge.

<sup>1</sup> "Records—The 'Seeing Eye' of Industrial Medicine," by William J. Fulton, M. D., *Industrial Medicine*, Vol. 13, No. 1, January 1944.

# Inventory for Health

## What business enterprise could do without regular inventory?

The plant that takes inventory of its health and safety situation regularly is just as sensible as the man who protects his personal health by getting a complete physical check-up once a year. It's protection where it counts . . . nipping serious trouble in the bud instead of waiting until it has developed into something expensive and hard to cure.

Your industrial hygiene bureau stands ready to give you this kind of preventive service. It should be done regularly, on schedule.

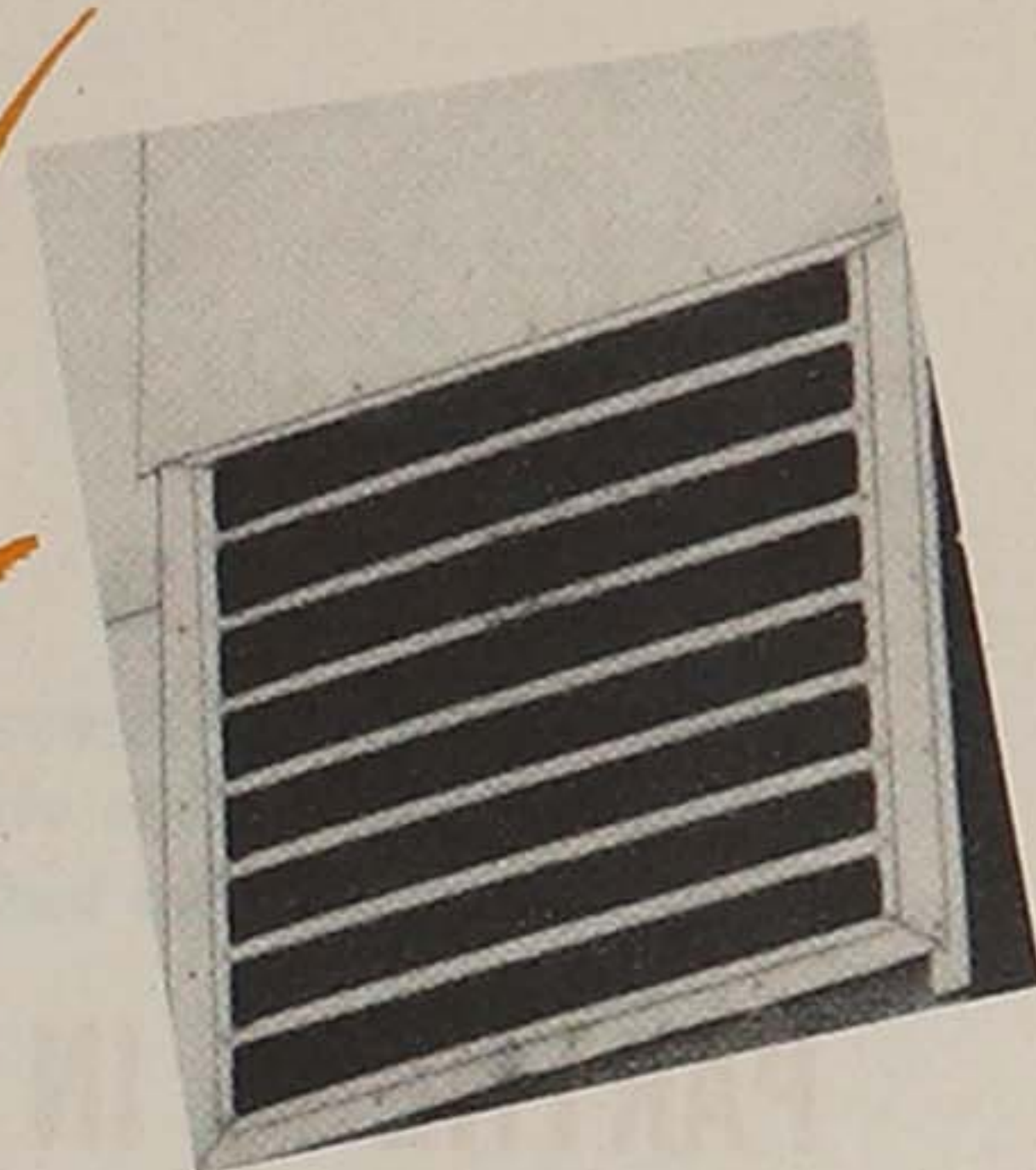
## Maintaining healthful working conditions in the plant is as important as setting them up in the first place.

You spend a substantial sum to have ventilation equipment installed for drawing off toxic fumes or dust. But unless there's a regular re-survey to make sure the equipment is doing its job, the sense of security resulting from this expenditure is likely to be false—and expensive.

A manufacturer spent a sizeable amount for down-draft ventilation under worktables where hundreds of girls were assembling certain war materials. It was a good system, installed on the recommendation of industrial hygiene engineers. But after a time the girls began to complain of headache and dizziness. One after another stayed home a day or two each week, or quit her job. The manufacturer asked for a re-survey of his plant.

It wasn't hard for the engineers to locate the trouble. These girls were using rubber cement . . . and as each brushful was lifted from pot to part, it dripped a little on the ventilator grid. The grids had become so covered that the girls were breathing poisonous vapors. The cure was simple—a guard placed on each table so that ventilators were kept clear.

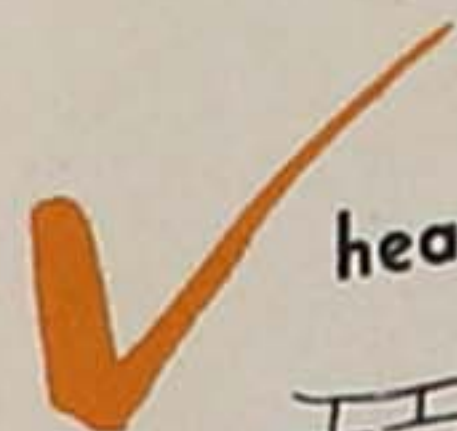
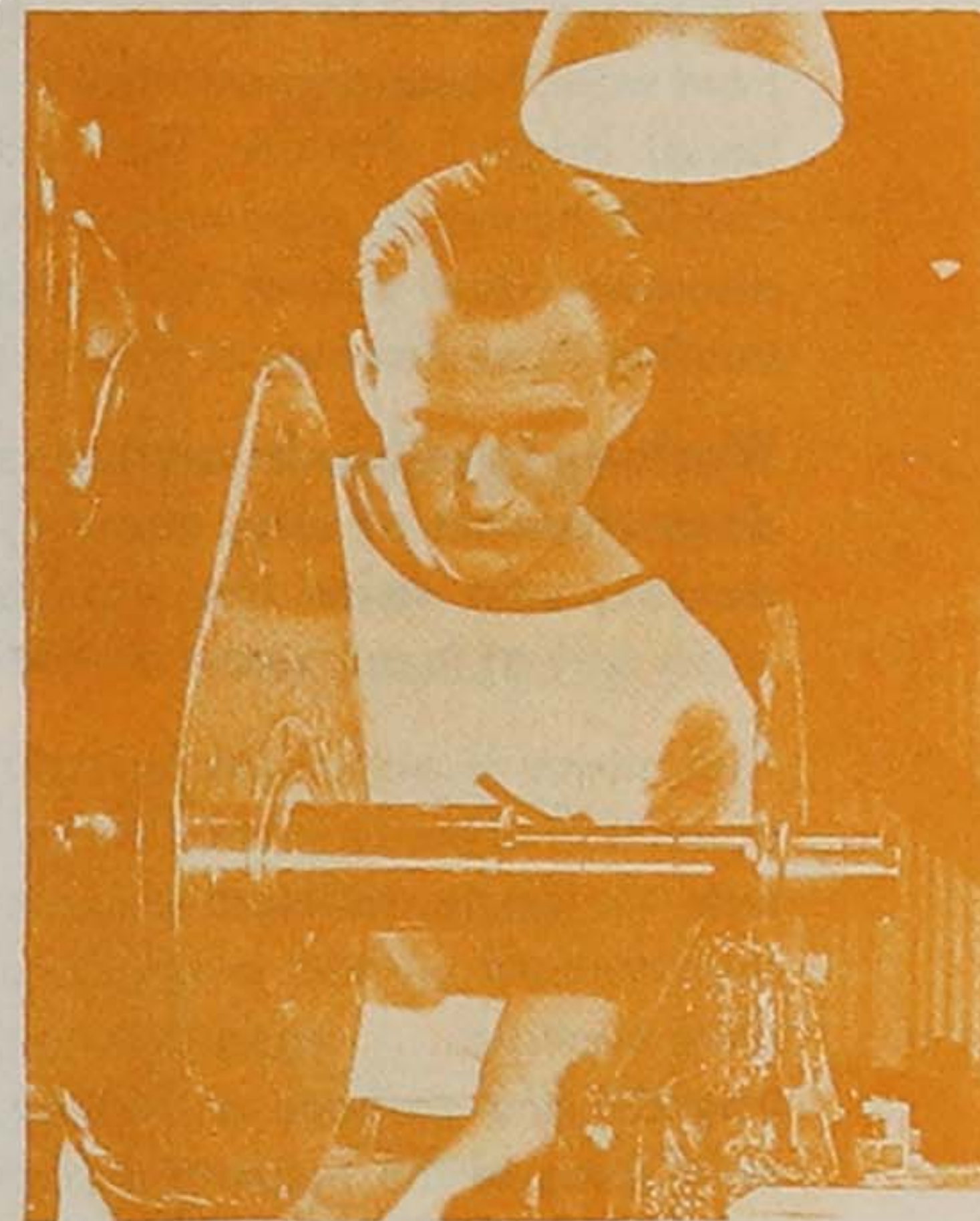
Sometimes management fears that workers may become alarmed over health conditions in the plant when they see another industrial hygiene survey being made. But experience has shown the exact opposite to be the case. Employees are reassured when they know there's scientific control of health conditions in their plant. They know the company is doing everything in its power to protect them.



ventilation



lighting



heat and humidity control



fumes

## PARTNERS IN HEALTH PROTECTION

**Should industry concern itself with the general state of health of its workers . . . with those causes of illness that aren't directly the result of work processes and working conditions?**

Important as it is to clear up industrial sickness as the cause of absence from work, its seriousness is far overshadowed by sickness of non-occupational origin. For this, too, industry and workers must pay . . . pay through lowered production, through loss of wages, through family disaster. And pay as well through taxes . . . the cost of finding and treating those diseases at present accepted as a public responsibility.

**Working together in partnership, management, unions, health departments of city, county, state, and nation, and the family doctor, can raise the health level of all employees . . . can wipe out at least some of the diseases that kill or cripple.**

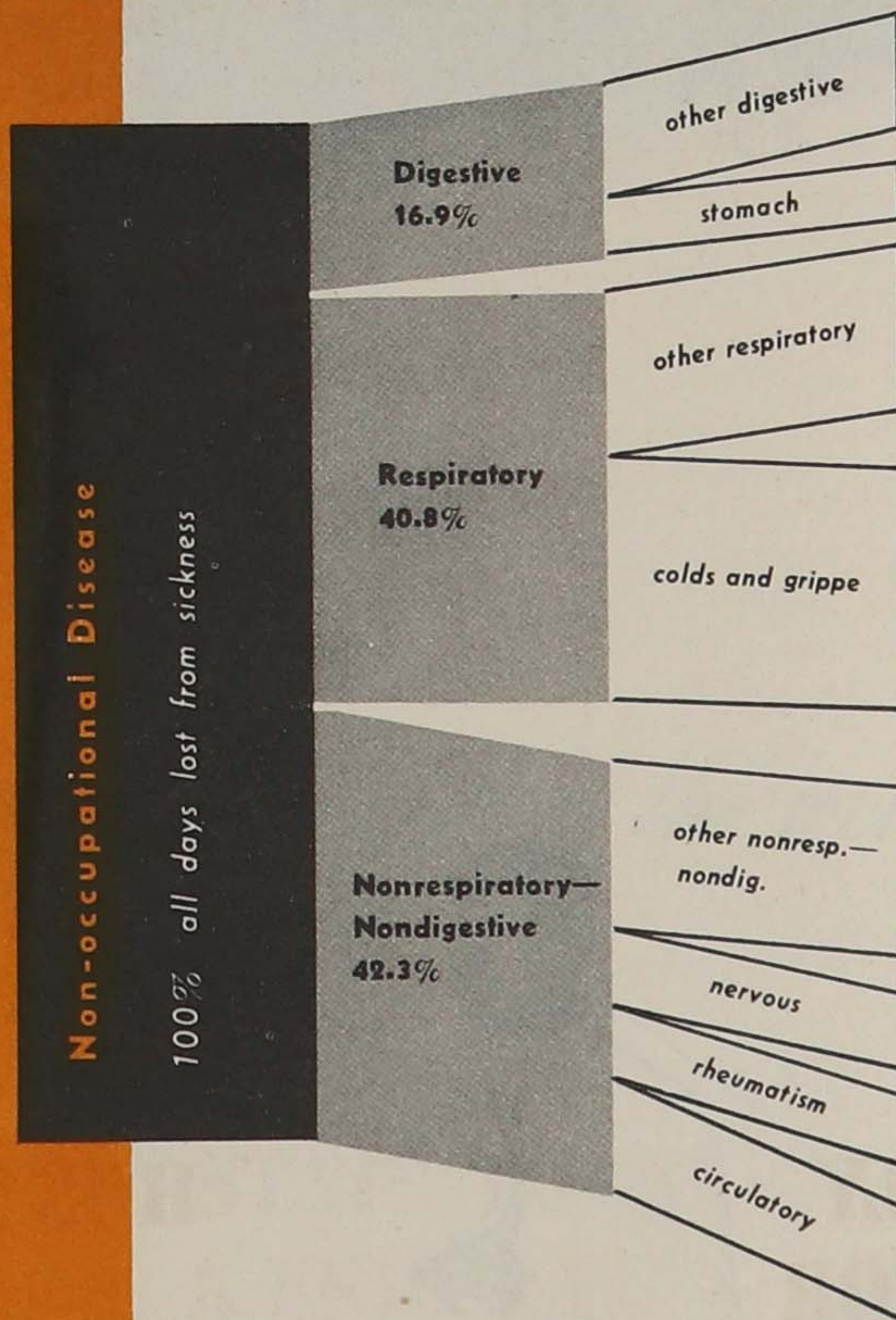
Their place of work is the best place to reach your employees with health protection of many kinds. X-ray to find tuberculosis in its early stages . . . tests to locate venereal disease . . . immunization against smallpox and typhoid . . . a program to find dangerous dental conditions and clear them up . . . early spotting of mental disease, to prevent personal tragedy and perhaps a lifelong burden on the public . . . these are only some of the helps that can be brought to your plant, with benefit to management and workers.

The nutrition of your workers can be improved. Health education through a plant program can teach them to follow modern ways toward better health.

Let your **industrial hygiene bureau** be your full partner in this big job. It is ready to act as liaison between your plant and every agency of community, state, and nation which works in health protection. It is ready to serve as counsel to management and labor unions in all problems of health.

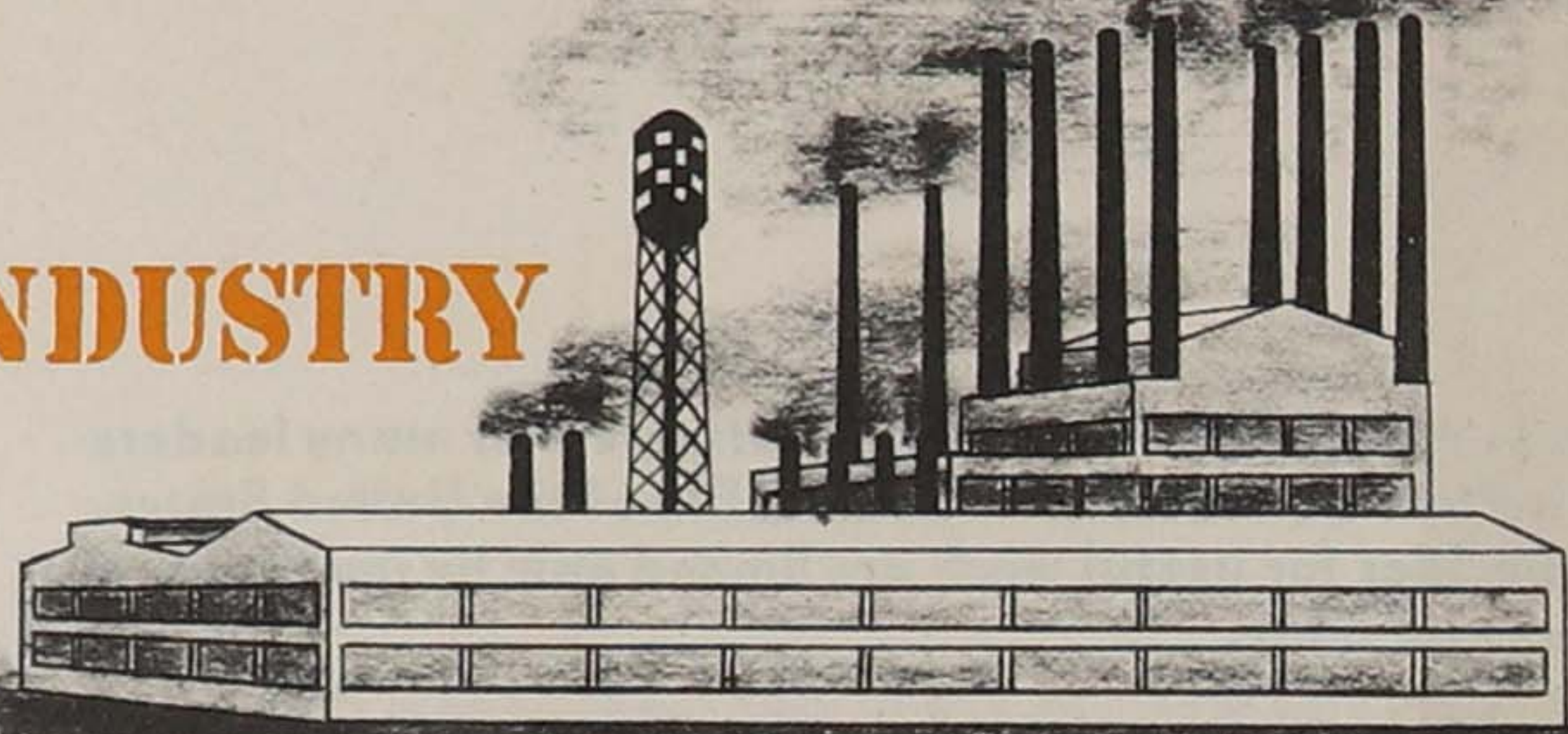
Such a partnership has won the endorsement of many leaders in the industrial, labor, and medical life of the United States. Its possibilities for useful work are limited only by the vision of what can be done.

Percent of Total Days of Disability Due to Sickness



**Note:** Similar data for occupational diseases not available.

**INDUSTRY**



**LABOR**

**PUBLIC  
HEALTH  
PROGRAM**



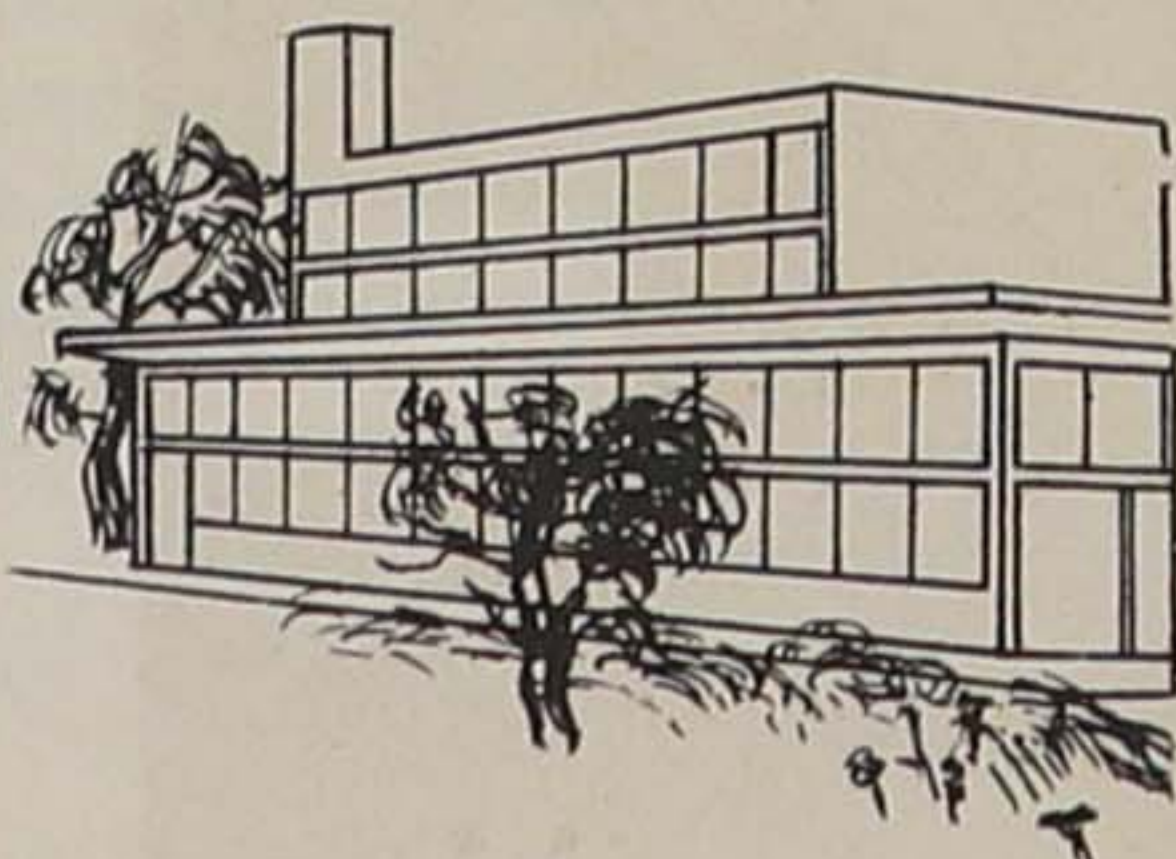
*to safeguard*

*the health of the worker*

**FAMILY  
DOCTOR**



**HOSPITALS**



**STATE, LOCAL  
& FEDERAL  
GOVERNMENT**



# CALL

## health service to aid you!

There's a new viewpoint developing rapidly in American industry . . . the understanding that industrial enterprise benefits by everything that benefits workers—and health is first in importance. Labor unions more and more are feeling that they, too, must carry responsibility for health.

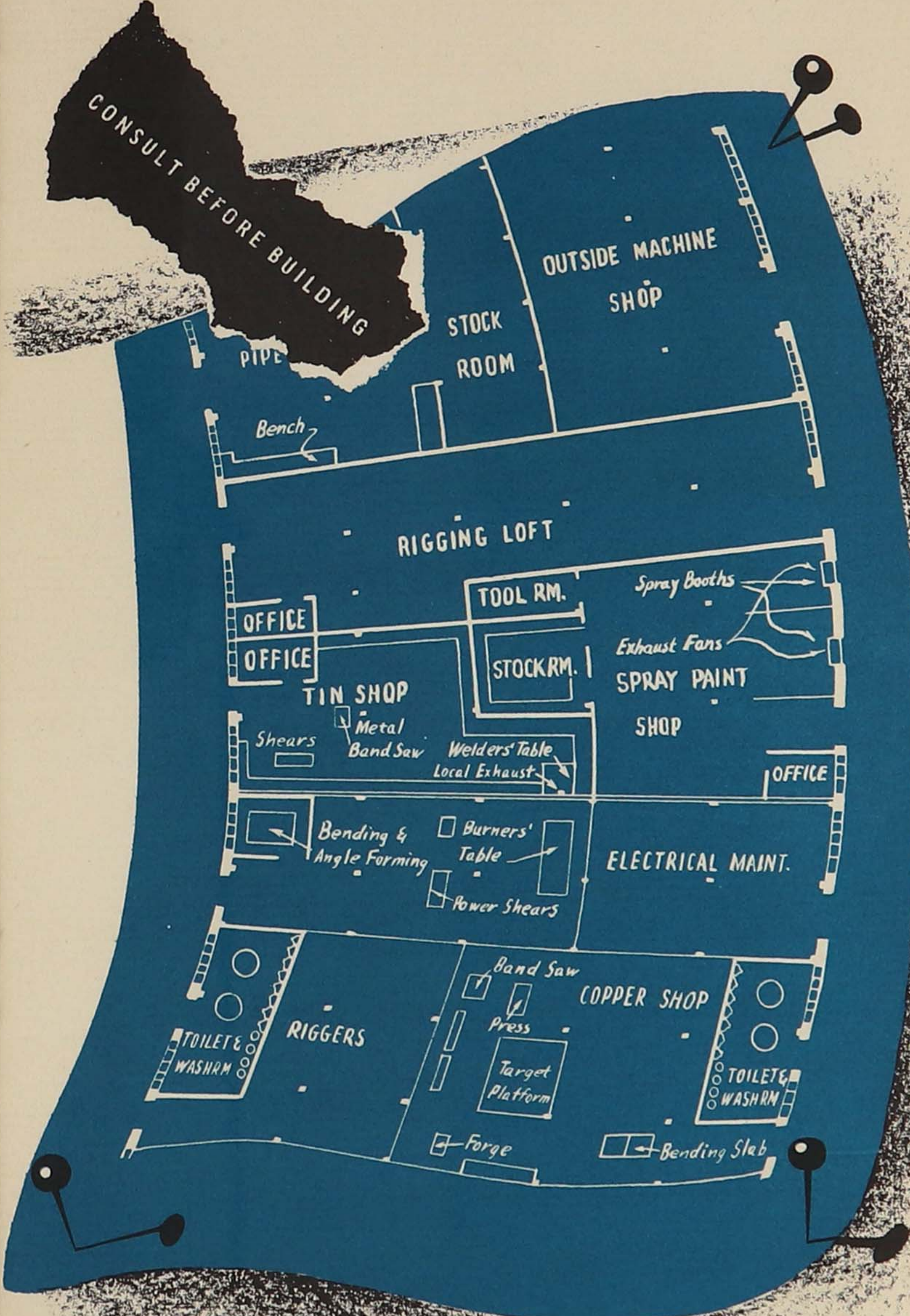
Many of the great industries of the United States are completely convinced, on a dollars-and-cents basis. They're going ahead with large and carefully planned programs for health and safety. And smaller plants are starting health programs as their value becomes clear.

**Make use** of your industrial health agency. Consult with it before setting up a medical department, or making administrative changes that affect the health of employees.

And before building a new plant or making important alterations, ask these experts to plan with you, so that sound and modern methods of health protection can be built into the structure . . . not added expensively after harm already has been done.

**Call in** your State or local **Division of Industrial Hygiene** . . . so that your employees, too, can say with confidence and pride . . .

**"It's a healthy place to work!"**



**TAKAHASHI TRADING CO.**  
1661 POST STREET  
SAN FRANCISCO 13, CALIF.

Miscellaneous Publication No. 33  
For sale by the Superintendent of Documents, Price 10c  
Federal Security Agency  
U. S. PUBLIC HEALTH SERVICE