Editorial:
WORKERS’ SAFETY AND HEALTH

Occupational diseases seem very remote from our experience. We read about Appalachian coal miners trapped in the latest mine disaster. And we observe miners on TV, from time to time, wheezing to an early death from black lung disease. But it all seems unreal, ever so far removed from our lives. Were it not for the grim knowledge that 78 miners died less than four years ago in the Farmington, West Virginia explosion, or that 125 miners and their families drowned this year at Buffalo Creek, West Virginia, when a mine slag heap gave way, one might be tempted to say these stories are not only from another place, but also from another time. It all seems reminiscent of the nineteenth century Industrial Revolution, but certainly not like twentieth century industrial rationality, progress and enlightenment.

Yet the truth of the matter is that occupational accidents and disease take their toll all over the nation: parathion spray poisons farm workers in California; lung cancer kills Johns-Manville asbestos workers in New Jersey; fires burn oil-workers in Texas refineries; and carbon monoxide fells tunnel workers in New York City. Still, word of these troubles is barely audible.

If murmurs are heard of occupational accidents and disease which wreck the body, not even whispers chronicle the industrial processes which slowly corrode the mind: the noise of a garment factory; the boredom of an assembly line; and the regimented nervousness of the telephone company switchboard.

The Occupational Health Establishment

Paralleling the general ignorance of occupational illness is an even greater paucity of knowledge about the occupational health establishment. But such an establishment does exist. In almost complete isolation, it has been left the job of attending to those occupational-related diseases on which the health science schools, doctors and hospitals have all but turned their backs. The fact is that the mainstream medical establishment shows scant respect for its occupational health counterpart. Its snobbishness is not altogether without cause. Even the American Medical Association has observed that company doctors and nurses are primarily concerned, not with the maintenance of the workers’ health, but rather with the maintenance of their companies’ production and profits. What is true about the company doctors specifically, is true generally about the entire occupational health establishment.

Yet events have begun to catch up with the occupational health establishment. There are new pressures from workers and the public to stop the most flagrant health and safety abuses. Within management there are some who see this pressure as a way to rationalize production. The result has been the 1970 Occupational Safety and Health Act which has, for the first time, brought the federal government into the business of coping with occupational hazards at most of the nation’s workplaces. And the universities, medical schools and hospital centers are
just beginning to interest themselves in occupational medicine. The handful of present research experts and teachers will soon be joined by many more as federal, foundation and insurance company money starts to sweeten the pot. The times call for an end to openly-shown bias, and for research and health care to appear objective and above the clamor of contending interest groups like management and labor.

The Next Step
We may expect that in the next decade the present stodgy and ill-prepared occupational health establishment will move more toward the main focus of modern medicine and research, the medical school-hospital-federal dollar nexus. Those who stay outside will lose their credibility and become irrelevant. For their part, we may expect medical, nursing and public health schools to place greater emphasis in their curricula on occupational medicine. A few of the most glaring occupational diseases will benefit from these educational reforms. It is even conceivable, though by no means certain, that progress in the research labs may be translated into improvement of workplace environments. On the other hand, it is inconceivable that corporation management and boards will simply stand by and allow medical scientists to tell them how to run their businesses.

Executives of big drug, hospital supply, insurance and real estate companies are already well entrenched on the boards of medical schools and hospitals. From these lofty heights, these men have preserved and indeed nurtured their own business interests. As medical teaching centers move into the occupational health arena, the day will not be far off when executives from every major sector of industry sit as medical school and hospital trustees. The result will be to strain these institutions' thin cloak of academic objectivity, particularly if scientists press too serious an inquiry into perils on the job in the businessmen's mines, factories and farms. Ultimately, it will be business first, scientific objectivity and truth later.
The history of occupational health in America—the hundreds of thousands of deaths and diseases at the workplace fostered by the Industrial Revolution—is one of outrage and despair. Outraged, because it was preventable; despairing, because it continues today, virtually unchecked and unabated. The passage of time has changed only the kind of atrocities practiced at the workplace. In fact, in many industries new technological developments have made factories and mines more unsafe and unhealthy than ever before.

Working conditions were known to be deplorable in the hazardous trades—mining, lumbering, and railroads—as long ago as the 1850's. Workers in many industries, though, did not demand safer workplaces. Much of the workforce was made up of immigrants who feared losing their already low-paying jobs to a surplus labor force of eager countrymen.

Conditions in the "non-hazardous" industries were not known to the public until after the turn of the century when they first appeared in the writings of muckrakers like Upton Sinclair:

"There was no heat upon the [slaughterhouse] beds; the men might exactly as well have worked out of doors all winter. On the killing beds you were apt to be covered with blood, and it would freeze solid; if you leaned against a pillar, you would freeze to that, and if you put your hand on the blade of your knife, you would run a chance of leaving your skin on it... The cruelest thing of all was that nearly all of them—all of those who used knives with frost and their hands would grow numb, and then, of course, there would be accidents. Also the air would be full of steam, from the hot water and the hot blood, so that you could not see five feet in front of you; and then, with men rushing about at the speed they kept up on the killing beds, and all with butcher knives, like razors, in their hands—well, it was to be counted as a wonder that there were not more men slaughtered than cattle. The Jungle, 1905

Triangle Shirtwaist Fire

While muckrakers stirred public interest in working conditions, very little governmental action was taken until 1911 when the Triangle Shirtwaist Company fire killed 146 workers, all of them women. As with many sweatshops of the day, the Greenwich Village loft where the women sewed had no ventilation, few windows, locked doors, and a fire escape which ended on the fourth floor. The disaster shook the nation and triggered a Congressional investigation, which resulted in the passage of safety laws and regulations for some industries and the appearance of some rudimentary safety devices on the shop floor. More important, the event contributed to the passage of workers' compensation laws in several states.

Management could no longer write off high accident rates as a fact of industrial life. But, rather than making costly changes in the production process, management discovered that it could assuage workers through the bargain-priced compensation system. As it turned out, the compensation laws, which paid nickels and dimes for arms and legs, came just in time. The introduction of automobiles, the advent of World War I, and the dawn of the era of scientific management with its assembly lines and time-motion
studies, caused the accident rate to skyrocket. Without compensation laws, management feared the workforce might strike over working conditions and stop profitable wartime production.

**Labor Pains**

To lend credibility to its concern for workers, management also gave birth to an occupational health establishment. Although presenting a very different face to the public, the raison d’etre of this network of private, quasi-private and public organizations has been to serve management. Safety engineers represented by the American Society of Safety Engineers (begun in 1913) designed plants to create maximum production and profits without regard for the health and safety of workers. The National Safety Council (established in 1913) developed record-keeping systems and statistics which masked the number of injuries that occurred. The founding in 1916 of the American Association of Industrial Physicians and Surgeons (now the Industrial Medical Association) institutionalized the role of company doctors in patching up accident victims and testifying for management in compensation cases.

Inadequate as its response was, industry had at least been forced to acknowledge occupational injury; not so with occupationally-related disease, which was completely ignored by the compensation system. Workers were not told that they might be working with hazardous substances, though some, like carbon monoxide and lead, had been known since antiquity to cause disease and death. Pioneering physicians like Alice Hamilton tried to make industrial diseases known to the public, as well as to persuade companies to change working conditions in their plants. Their efforts went largely unnoticed, except for an occasional scandal.

Some physical hazards, such as noise causing deafness, are obvious. But most occupationally-induced diseases come from contact with chemicals and metals, or the inhalation of dusts. In the mid '20's the watch and clock industry employed women to paint luminous dials. Dipping their brushes in paint containing radium, the women then put the brushes to their lips to make a fine point. Years later, many died of radium poisoning, which, in the process, destroyed their teeth and jawbones and horribly disfigured their faces. The story reminded the public of a similar disaster among workers in the match industry. Alice Hamilton, who documented the disease in this country (it had been known in Europe twenty years earlier), found that it was caused by poisoning from breathing phosphorus fumes or eating from fingers smeared with the substance.

**Gauley Tunnel Disaster**

Even these scandals did not move the government into action. It took a full scale disaster, the most horrifying episode in American occupational health history, to do that. The building of the Gauley Tunnel in Gauley Bridge, West Virginia, took the lives of hundreds and left thousands more disabled. The tunnel was built by New Kanawha Power, a subsidiary of Union Carbide, in 1930-31.

"Working conditions strained credulity. Gasoline powered trains filled the tunnel with carbon monoxide, poisoning the workers and making them drowsy. But the worst hazard was the dust, silica dust, often so thick that you couldn’t see ten feet in front, even with the headlight of a train. Though West Virginia laws required a 30 minute wait after blasting, workers were herded back into the tunnel immediately after a blast. Foremen at times had to beat them with pick handles to get them to return. The silica content of the rock being blasted was very high. Though New Kanawha Power warned its
engineers to use masks when entering the tunnel, no one ever told the workers to take precautions.

Increasing numbers of workers became progressively shorter of breath and then dropped dead. The subsidiary contracted with a local undertaker to bury the blacks in a field at $55 per corpse. Three hours was the standard elapsed time between death and burial. In this way, the company avoided formalities of an autopsy and death certificate. 170 people were turned to the compensation system, and in so doing killed three birds with one stone. Compensation was less expensive than the sums being demanded in law suits by Gauley victims and their families; it provided a way of dealing with occupational disasters without the publicity that normally accompanies law suits, and, most important, it once again avoided the question of altering the production process.

Nonetheless, some companies feared

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Suppose that one day per year, 1,800 manufacturing workers were killed and 460,000 injured enough to disable them beyond the day of the accident—no one else hurt in manufacturing the rest of the year. Suppose on another day, 1,900 workers in service occupations were killed, and 350,000 injured. On another day, 1,200 were killed in trade and 390,000 injured. We would indeed be shocked into action on any of those days. These are the National Safety Council totals for 1968. So, we have our disasters day by day, and it hurts as much as if they all come on one day, but it isn’t noticed.

—Paul Jennings, President
International Union of Electrical Workers, 1969 OSHA hearings

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buried this way—two and three deep in a grave... .

The facts of the story didn’t emerge until a Congressional investigation in 1935—476 dead, 1500 disabled, according to a US Public Health Service official who testified.”


(The Gauley disaster was graphically recorded in a 1941 novel by Hubert Skidmore, called Hawk’s Nest. Union Carbide was so fearful of the bad publicity the novel would attract that it bought up every available copy of the book.)

With this, industry and government at last had to respond to the existence of occupational disease. But again they they might end up paying high insurance premiums for one disease after another, and that the cost of compensation would severely limit profits. So corporations in several industries began to support medical epidemiological research in the workplace—to determine just how dangerous particular substances were. With such "scientific" grounding, management could decide more credibly whether a disease was compensable. Consequently, only a handful of diseases—most of them dust diseases such as silicosis, black lung and asbestosis—have been included in workmen's compensation.

Industry Controlled Research

Controlled as it is by industry, it is not surprising that industrial health research has not kept pace with all the new sub-
stances being introduced into industrial processes. Since World War II the number of new chemicals alone used at the workplace is a staggering 12,000. Four hundred chemicals are developed every year for industrial use; a new chemical introduced at the plant site every day. Few of these chemicals have been tested for toxicological effects. No matter. Workers are human guinea pigs who eventually will provide the grim evidence.

Coal miners have been coughing their lives away for 200 years. Any literature you read, whether it is Zola or anyone else who wrote about coal miners, all through the literature runs the description of a man coughing out his life—a coal miner. How does something like that, that is so manifest and has been for hundreds of years, how does that get through with no attention?

—Senator Harrison Williams 1969 OSHA hearings

Such negligence is easy to overlook, because the extent and seriousness of occupational disease is woefully underestimated. The key is accurate record-keeping, but industry holds that key. Occupational injuries are underplayed and under-recorded, and occupationally-related diseases are systematically ignored, misdiagnosed and unrecorded.

But the few known and recorded statistics are hair-raising enough. Industry places the death rate from accidents at 14,000 a year, more than the number of men killed yearly in Vietnam; and the number of workers disabled by accidents at 2.2 million. If a 1970 Bureau of Labor Statistics study estimating that 30 to 50 percent of occupational injuries and deaths go unreported is even nearly accurate, then 20,000 die each year and another three million are disabled.

For those few industries where occupational illnesses are known to exist, the statistics are equally chilling. Of 6,000 Western uranium miners, 1,100 will die in the next 20 years from lung cancer. The 200,000 workers who mine and manufacture asbestos will die twice as fast as people of the same age in the general population. Some diseases, like black lung disease and byssinosis, which have existed for generations, have increased in severity in the last 20 years due solely to new techniques of mining coal and processing cotton.

Blowing The Cover

Management and its occupational health establishment have held the lid on the occupational health and safety issue for decades. Now, as the lid is lifted, more troublesome facts come to the surface. For example, occupational hazards may extend into future generations. Studies of pregnant operating room nurses in this country and England have shown that prolonged exposure to anesthetics is creating an alarming rate of miscarriages. And evidence is mounting that children are being exposed to toxic substances brought home in the clothes of their parents. And the toll exacted by job monotony, speed-up and tedium are yet to be explored. The rising rates among workers of alcoholism, drug addiction and mental illness point suggestively to the workplace.

If the lid on occupational injury and disease is beginning to lift generally, in Appalachia it has been blown sky high. Here miners suffering from black lung disease brought the coal industry to a halt until the government granted major concessions: the right to compensation for black lung and new federal safety standards for mine operation. And along side the miners has grown up a new set of doctors; that have assisted by providing information and education to miners and challenging the medical criteria set by management and the government to determine that disease.

The struggle of the Appalachian miners is hopeful, and will no doubt be followed by struggles in other industries. And workers will find themselves up against the walls of the occupational health establishment.

—Marsha Handelman and Joseph Licata
GREASING
THE
CORPORATE
WHEELS

An occupational health establishment exists. It is almost as well hidden from the public as are the injuries and diseases with which it is supposed to deal. It is composed of private, quasi-public and governmental organizations which purport to offer a variety of services to ensure workers' health: research, record-keeping, standard-setting, safety education and the administration of the multi-million dollar workmen's compensation system.

It isn't any wonder that the occupational health establishment takes a low public profile. Indeed, there isn't anything very public about it, despite the fact that its decisions affect the health of 34 million workers. Some groups, such as the National Safety Council and the Industrial Hygiene Foundation, were established by industry and are totally private. They are financed by industry and provide direct services to it. At a quasi-public level, the American Conference of Governmental and Industrial Hygienists and the American National Standards Institute, both standards-setting organizations, claim to serve a broader constituency, and include some government, consumer and union representatives in their ranks. Their standards have been widely accepted as voluntary "guidelines" by industry and have recently been given the status of law. They serve basically to give an independent, professional, and somewhat public cast to what, upon closer examination, is clearly the will of private industry. With the upsurge of concern about occupational health and safety and the passage of the Occupational Safety and Health Act, government has been forced into an active role. But already its independence and neutrality have been severely compromised by its reliance on the rest of the occupational health establishment for record-keeping, initial standards and research. In many ways, the Occupational Safety and Health Act (OSHA) has simply brought legitimacy and government sanction to the already existing occupational health establishment.

Tying these organizations and management together is a common approach to the problems of occupational health and safety, consisting of first, denial of the problem; second, blaming workers for the problem; and finally, paying off workers through a workmen's compensation system designed to minimize costs to industry.

Historically, management and the occupational health establishment have concentrated on workplace injuries because they are obvious, immediate and impossible to deny. But, in instance after instance, management, with the occupational health establishment at its beck and call, has denied the overwhelming evidence of occupationally-related disease.

The Art of Denial

For example, for years, coal companies, company doctors and hygienists denied the existence of black lung disease (pneumoconiosis). To add insult to injury, miners were told coal dust was good for them. To take another example, according to mill owners, hygienists, and the U.S. Public Health Service, byssinosis or "brown lung" (see article p. 20), long recognized as a hazard in English textile mills, did not exist in the U.S. until 1961 when an unbelieving English scientist found it to be as prevalent here as in other countries. Once again, Colgate Palmolive dismissed as "unfounded" reports that the production of enzyme-active detergents could cause permanent lung damage and other health problems until it was forced to concede that 141 workers in its detergent factories had reported skin and eye irritations, and 35 had respiratory ailments.
When evidence of occupational disease becomes so overwhelming that it can no longer be denied, management seeks to find non-occupational causes or simply blames the worker for his or her own illness. Proctor and Gamble alleges that "concentrated enzyme materials are mishandled in production" giving rise to worker ailments. Union representatives report that the company doctor at Monsanto Chemical in Michigan blames workers in the detergent department for the skin rashes which break out there; one worker reports that "Every time anyone goes in there with these skin problems, the company doctor says, '[they] have bad hygiene habits. All I can gather from that is that they don't take baths.' I don't know, everyone who works there showers before he leaves the plant."

If management scientists can't blame worker's "bad habits," other habits can be faulted. The Industrial Health Foundation (see below), which had made a career of finding non-occupational causes for dust-induced diseases, has tried to make the public believe that cancer in asbestos workers is caused by smoking, rather than exposure to asbestos fibers. And when workers' lifestyle arguments wear thin, the IHF has a more sophisticated rationalization at hand. The fault rests within workers' genes. Textile workers, are, they say, affected by cotton dust because they lack a certain enzyme.

Workplace accidents, like disease, are blamed on worker negligence. The National Safety Council (see below) claims that 75 to 85 percent of all injuries are caused by worker carelessness. DuPont's safety director does better than that. "80 to 90 percent of all the accidents in our plants are due to worker negligence."

If worker carelessness is the problem rather than the production process, then it follows that the solution lies in safety and education campaigns to combat negligence. Workers are admonished to wear hard hats, safety boots and awkward gas masks and are subjected to demeaning safety campaigns such as one recently launched by the Seagram plant in Lawrenceburg, New York. Six employees, dubbed "The Insiders," were authorized to perform unsafe acts deliberately—but carefully. Meanwhile, all other personnel were urged to be particularly attentive to safety violations. Those who spotted the staged violations and urged the "Insider" to be more cautious received a cash reward on the spot. Ironically, company safety directors don't educate workers about the effects of speedup, unsafe machinery, poor ventilation and lighting, etc. Nor are workers "educated" about the nature of the substances they work with or the effects of the fumes or dust they breathe. Even worker education has its limits.

When industry can neither deny health and safety hazards nor place the blame elsewhere, it resorts to the most economical way of handling occupational injury and disease—the workmen's compensation system. Workmen's compensation allows corporations to pay off their casualties at a rate which presently amounts to only one percent of payroll costs. This system, designed to deal with injury, allows industry to virtually ignore occupational disease. With the cost of worker welfare so cheap, corporations need not make costly changes in working conditions or the production process which maim, mutilate and destroy the lives of workers.

We now turn our attention to the occupational health establishment, which, throughout its short history, has served primarily to rationalize and legitimize industry's approach to the problems of occupational health and safety.

Private Groups

The National Safety Council (NSC) is known to the general public by the familiar refrain "450 people will die in auto accidents this Labor Day weekend." But NSC auto safety campaigns are vastly overshadowed by its concern with industrial safety, which accounts for half of its $10 million a year budget. Sixty percent of its board of directors are representa-
The Establishment

The Standard Setters

AMERICAN CONFERENCE OF GOVERNMENTAL AND INDUSTRIAL HYGIENISTS (ACGIH) is a private, professional association of government and university based hygienists, who have the major responsibility for setting toxicity standards in the U.S. It originated the concept of threshold limit values (TLVs), the level at which a substance is considered safe to use in the workplace. Presently, there are 450 TLVs nationwide.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) is a private, company-dominated "consensus" standard setting organization. ANSI standards are the result of compromise between industry, government, university researchers and labor—all of whom are represented on ANSI. Though it has researched only 28 toxicological substances, ANSI has been chosen by the government as the model standard setter.

The Record Keepers

NATIONAL SAFETY COUNCIL (NSC) is management's safety educator. It offers worker education programs about safety at the plant site. It is also the originator of the only form used by industry nationwide for recording industrial accidents.

INDUSTRIAL MEDICAL ASSOCIATION (IMA) is a private, national organization of company doctors. Its members' major function is to record industrial injuries. Because IMA members are basically accountable to management accidents are under-reported.

The Researchers

INDUSTRIAL HEALTH FOUNDATION (IHF) is industry's major research organization. A private group, IHF does ongoing research in several areas: occupational medicine, occupational nursing, law (workmen's compensation), engineering, and toxicology-chemistry. It is involved in some standard setting research.

UNIVERSITIES AND MEDICAL CENTERS. A handful of public health and medical schools have departments in occupational health or single researchers who have made occupational health a career. The major schools include: Pittsburgh; Harvard; Mt. Sinai Medical School; Berkeley; North Carolina.

The Governmental Agencies

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH) is part of the Department of HEW. NIOSH conducts research on health and safety problems, but depends heavily on the advice of ACGIH, IHF and the universities. It is also responsible for devising a national system of comprehensive statistics.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) is a part of the Department of Labor and was set up by the Occupational Safety and Health Act (1970) to be the enforcement agency for occupational health and safety. It sets fines, handles appeals on contested cases and trains inspectors.

The Compensators

THE COMMERCIAL INSURANCE INDUSTRY insures private companies for industrial injuries. Claims are administered through State industrial accident commissions. Rates are set by the insurance industry itself through private organizations such as the National Council of Compensation Insurers.
atives from industry, insurance companies, and trade associations, and most of its budget come from contributions from these groups. In the arena of occupational safety, the NSC, founded in 1913, specializes in record-keeping and safety education.

The Council's Form Z16.1, developed in 1914, became the major national instrument for reporting accidents, and is the basis upon which government and industry statistics are derived. It is supposed to measure the frequency of disabling injuries and industrial fatalities, and the severity of these injuries, counted in days lost.

Form Z16.1 is less than a perfect tool. Indeed, its defects highlight the occupational health establishment's role in down-playing hazards. As a starter, occupational illnesses are not even included on the form. The form permits virtual falsification of "lost time" accidents. The Council's definition of a lost-time accident is "one which so injures a worker as to prevent him or her from performing normally assigned duties." If a worker is injured on the job, returned the next day on a stretcher or crutches, and kept on the payroll until he is recuperated, his accident is not counted as "lost time.

Peril on the Job, a study of hazards in the chemical industry, quotes a local union president in the U.S. Reduction plant in East Chicago: "We have men every now and then hobbling around here on crutches, one arm in a sling, just doing nothing, sitting in the locker room." This charade is not without rhyme or reason, however. If lost-time accidents are too frequent, compensation claims rise and the company faces higher insurance rates.

The passage of the Occupational Safety and Health Act has been good for the Safety Council. If a company is found violating national health and safety standards, it can demonstrate "good faith" by joining a safety organization like the National Safety Council. By so doing, a corporation can be awarded a 50 percent reduction in fines which it would otherwise receive. Whether or not OSHA insures better health for workers, it will do great things for the health of the National Safety Council.

Occupational Health Practitioners: Two percent of all registered nurses (18,000) and four percent of all doctors (8,000) make a career of occupational health. They have traditionally been represented by two organizations, the Industrial Medical Association (IMA), founded in 1916, and the American Association of Industrial Nurses (AAIN), founded in 1942.

Both of the organizations are little more than fraternal lodges designed to enhance the low esteem with which the rest of their respective professions have traditionally viewed company doctors and nurses. Neither organization is a world-beater. The AAIN represents only a third of the 18,000 nurses practicing in industry, and the IMA half of the 8,000 company doctors. Neither organization sponsors research. Both publish journals which are not noted among medical colleagues for their scholarship or scientific excellence. Both maintain skeletal staffs and a handful of do-nothing committees. But even if these organizations are of little importance, the same cannot be said of the company doctors and nurses themselves.

While occupational physicians and nurses have, through the years, maintained that they are neutral parties serving both management and workers, their actions clearly belie this. The AMA's "Management Guide on Occupational Health Programs" suggests that the role of occupational physicians is to:

- Reduce the cost of workmen's compensation insurance.
- Reduce the cost of hospital and surgical insurance claims.
- Reduce absenteeism.
- Reduce labor turnover.
- Increase the useful span of years of both worker and management.
- Create a good atmosphere in which the employee works.
- Persuade the employee that management is sincere.
- Convince the employee that his job is important.

The daily practice of company doctors and nurses . . . fulfill(s) a common goal: the reduction of compensation claims and insurance premiums paid by the company.

The daily practice of company doctors and nurses involves screening out health risks by pre-employment physicals and
The Walking Wounded

Gentlemen, when we lose a hand in the Fairless Works, this is not a disabling injury, when we break a leg this is not a disabling injury. When we have people literally torn apart, receiving hundreds of stitches, and laying in the dispensary for 3 days, it is not classified as a lost time accident. This is happening in industry today.

—Anthony Semeraro, Safety Chairman, Fairless Steel Works, 1970 OSHA hearings

Moreover, Z16.1 standard allows employers to avoid reporting many injuries by sending an injured worker to any “regularly established job” —even if entirely different from the worker’s original job.

Thus employers often keep a supply of unfilled low-effort, “regular” jobs just to fill with injured employees. Employees are given jobs in the dispensary or the parking lot until they are recovered. Some estimate can be made of the magnitude of this distortion by looking at the actual injury frequency within two large businesses. The results are revealing. For example, in December 1968, the Martin-Marietta Company had 89 “doctor cases” which were more than routine first-aid. During the same time, they reported only seven disabling injury cases under the Z16.1 standard.

Records of Bethlehem Steel are similarly distorted... the company’s own steel plant operations’ index was 13.2 whereas the frequency it reported to the National Safety Council was 0.73 per million man-hours of work.

—Ralph Nader, 1969 OSHA hearings

In our plant we had 2 million hours without a loss-time accident. It was not really without loss time. I won’t accept the award. I won’t let anybody in the local accept the award, because we had people all over the place with broken arms, elbows out of commission, and everything else. . . . It is all walking wounded. That is what we call it.

—Steve Cadena United Steel Workers, American Can Company, 1970 OSHA hearings

periodic check-ups, and reporting, or rather, under-reporting accidents and illnesses. Both functions fulfill a common goal: the reduction of compensation claims and insurance premiums paid by the company.

The Industrial Health Foundation (IHF): Sponsored and set up by industry in 1935 as the Air Hygiene Foundation, IHF does research on occupational health. Membership is voluntary; one need only be a corporation to apply. Yearly dues, totaling only $500,000, are commensurate with the size of each of its 200 member companies and trade associations. IHF does not finance its own research. Rather, member companies request a research project and pay for it themselves or solicit money for the project from the government. IHF performs some of this research itself and farms out the rest to universities.

Historically IHF’s road has been rocky. Its first snafu was on its initial project in 1935, which sought to prove that silicosis was not an industrially-related illness. IHF made a brief comeback in the ’50’s when it garnered credit for curtailing steel mill pollution, which was all but destroying Pittsburgh’s air. But IHF’s credibility was short-lived. In the ’60’s, it returned to its old ways, releasing a pneumoconiosis study which denied the existence of the disease altogether. Despite this history, and reports of administrative and fiscal mismanagement, IHF is still in there pitching, and by and large, remains industry’s research voice.

Currently, IHF’s two major research projects consist of byssinosis and asbes-
tosis, both priority diseases for the government's new research bureaucracy. These studies may be its last hope for redemption. If IHF makes a respectable showing here (and indications are that it already has with asbestosis), it will be heavily involved in future standard-setting research.

Quasi-Public Groups

The American Council of Governmental and Industrial Hygienists (ACGIH) is a private professional association of government and university-based hygienists. The group has 1,100 members, and is headquartered at NIOSH's Cincinnati lab where its presidents have traditionally worked. ACGIH sets "Threshold Limit Values," called "TLV's," for worker exposure to toxic substances. Although ACGIH has only a skeletal staff and no research facilities of its own, it has been the most important national standard-setting organization.

Nevertheless the ACGIH has set only 450 TLV's for the roughly 10,000 materials in common industrial use. These standards do not take into account the possible synergistic effects of exposure to several toxic materials at one time. It is striking that ACGIH standards for worker exposure are often set far above those which the weak-kneed Environmental Protection Agency sets for the general public. For example, workers can be exposed to carbon monoxide in concentrations of 50 parts per million, while the EPA recommends a level of 10 parts per million.

The American National Standards Institute (ANSI) is an association of some 900 companies, 160 trade associations, government agencies and two unions. ANSI is financed by corporate contributions and dues to the tune of $900,000 a year.

ANSI's claim to distinction is that it sets standards by "consensus" among representatives of all interested parties. When one party, such as U.S. Steel, wants a guideline for use of a toxic substance or process, it makes a request to ANSI. ANSI in turn forms a committee of all "concerned parties" (including U.S. Steel, of course). The committee sponsors and puts up the money necessary for research, and, based on this, the committee members negotiate a "consensus standard." Given ANSI's composition and funding, it is no mystery who swings the weight behind the consensus.

Historically, the standards set by ACGIH and ANSI have had a semi-official status. They have been recognized as guidelines for industry, were incorporated into some state federal laws like the Walsh-Healy Act in 1936 (see OSHA, p. 15), and have served as criteria in compensation cases. But they have not been enforced in industry nor has ANSI or ACGIH attempted to establish an enforcement mechanism. But then, industry-dominated groups can hardly be expected to police themselves in the interests of worker health.

The passage of OSHA, the Occupational Safety and Health Act of 1970, has for the first time, established official, potentially enforceable national health and safety standards covering most American workers. This is a big job for the federal government, a newcomer to the scene, so, no surprise, it turned to ANSI and the ACGIH for its initial set of standards. The effect has been to put the government stamp of approval on the work of ANSI and the ACGIH.

The Federal Government

The National Institute of Occupational Safety and Health (NIOSH): Until 1970 the federal government played very little role in occupational health and safety, but to the extent it had played any role, it was transparently pro-industry. The sole federal agency concerned with occupational health and safety, the obscure Bureau of Occupational Safety and Health (BOSH), operated on a miniscule $3.5 million annual budget, and constantly found itself being shunted from one HEW jurisdiction to another. BOSH did some research, but had no regulatory functions. In setting research priorities, BOSH used to "take a survey of what industry people were thinking," and then "applying such factors as toxicity and the number of workers exposed, come up with its priorities," according to Roy Fairchild, current NIOSH Lab Director.

However, the growing concern about occupational safety and health which resulted in OSHA, made a more active and "neutral" federal role imperative, and so BOSH was superceded by a newer, spiffier model—the National Institute of Occupational Safety and Health. NIOSH's primary role is to advise the Department of Labor in the setting of national health and safety standards. In order to do this, it sets research priorities, develops research programs, and gathers and analyzes statistics on workplace disease and injury. Grandiose as it sounds, NIOSH simply adds a new layer of obfuscation. In almost every critical role, it relies on the old occupational health establishment. For example:

Recordkeeping—NIOSH has responded to its mandate to develop accurate occupational disease, injury and death sta-
POISONED PLANT

The Kawecki Berylco beryllium refinery opened at Hazelton, Pennsylvania in 1957. It was hailed as a "model" plant. The company had built a new plant in response (in part) to conditions in its old plant, which led to beryllium dust poisoning not only of workers, but of their families as well. Though the company claimed to have "learned its lesson," reports of poor ventilation leading to respiratory problems at the new "model" plant began to trickle in.

Nothing was done until 1969 when the Oil, Chemical and Atomic Workers Union, together with Dr. Harriet Hardy of Massachusetts General Hospital, convinced the company that an investigation was in order.

Since 1965, the company doctor had been assuring workers that though there were spots on their X-rays, they were suffering from bronchitis, not berylliosis. The union study proved otherwise. Forty seven of 212 workers showed symptoms of the disease and 7 were definitely diagnosed and cautioned to stop work immediately.

The beryllium exposure standard set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 2 micrograms per cubic meter of air. By monitoring in remote parts of the plant, the company maintained it was within the threshold limit. Recently, however, the company was fined $600 after an inspection under the Occupational Safety and Health Act.

Presently, the Pennsylvania Workmen's Compensation board is "reimbursing" those workers who are completely disabled at $60 per week. Others receive nothing.

The Kawecki Berylco tragedy, which continues today, illustrates in a microcosm how the occupational health establishment works. Company doctors first denied the disease existed. Then, hygienists offered no completely safe exposure level protections. Next, government investigated the plant, but only slapped the company's hand. Finally, the worker is left disabled, with chronic disease, but is compensated at such a poor level that he can hardly survive financially.
to the fibers. Dr. Irving Selikoff at Mt. Sinai Hospital in New York has produced dramatic evidence of the harm workers suffer from asbestos exposure. His research shows that asbestos workers contract cancer at a rate six times that of the general population.

Alarmed at the inadequacy of the ACGIH's old limit of 12 fibers per cu. cm., the unions clamored for a new emergency standard of two fibers (although Selikoff's research showed that there is no "acceptable" exposure limit whatsoever). Industry proposed a limit of ten fibers and later came down to five. Under great pressure from independent researchers, NIOSH recommended an emergency standard of five fibers, to be reduced in 1974 to two. The Labor Department overruled this by extending the emergency standard until 1976. While the difference between two and five fibers may not seem great, it will mean that asbestos workers will breathe an extra 20 to 30 fibers per day for two more years.

But for all its frailty in terms of record-keeping, research and standard-setting, NIOSH has managed to find the wherewithal to launch an entirely new area of research. Through its Behavioral and Motivational Branch, NIOSH will study worker dissatisfaction and worker reactions to stress on the line and in the mine.

Beneath NIOSH's veneer of sophistication and objectivity traces of industry's old "blame-the-victim" approach are showing. NIOSH's most important contribution may be that it is introducing a new face to the occupational health scene. For the first time, universities are competing with the older occupational health establishment for research contracts. Though limited in 1971 to $2.5 million, 70 of the first 75 NIOSH contracts went to universities.

Universities, with their supposed impartiality, appear to be the new meeting ground for the differing occupational health interests of management and labor. Mediated by NIOSH, the United Rubberworkers and several companies are funding research at Harvard and the University of North Carolina. Under this arrangement, information garnered in the studies is considered the property of management. So much for impartiality.

The fact is that the answer to the problems of occupational health and safety are unlikely to be found either in NIOSH labs or on the university campus. Even if Nobel prize worthy research ensued, this would offer no assurance that workers' health would be preserved. The invention of the best monitoring device does not insure that it will be used and the most detailed knowledge of the toxic effects of chemicals does not guarantee changes in the production process which will protect workers.

The real occupational safety and health work remains to be done. It is not the work of the establishment. Plant by plant, and shop by shop, investigation, education and monitoring are tasks which neither industry, the occupational health establishment nor NIOSH will assume. How workers, unions, and support groups are moving on those tasks will be the subject of Health-PAC's next occupational safety and health BULLETIN.

—Marsha Handelman,
Joseph Licata and Jim Weeks

Q: How do you set research priorities?
A: Well, you take a survey of what industry is thinking. (Our researchers) go to annual trade association meetings to find out what's on management's mind. Then applying certain factors such as toxicity and number of workers exposed, you come up with your priorities.

—Dr. Roy Fairchild, director
NIOSH Cincinnati Laboratory
On December 29, 1970, President Nixon signed into law the Occupational Safety and Health Act (OSHA), calling it "one of the most important pieces of legislation from the standpoint of the 55 million people covered by it, ever passed by the Congress of the United States." George Meany, AFL-CIO president, hailed it as "a major victory for American workers."

A more sober appraisal shows that OSHA offers little immediate relief to the American worker. It is important, however, because it has permanently changed the terrain on which occupational safety and health struggles will be waged.

Prior to OSHA, occupational safety and health protection was provided mainly through workmen's compensation which was, and still is, dispensed by individual states. For those few workers who are tenacious or lucky enough to win it, compensation is totally inadequate. In 1970, a totally disabled worker supporting a family was paid an average of only 54 percent of his or her regular weekly wage. Compensation varies widely from state to state. In Michigan a worker who loses a hand in an industrial accident can receive a total of $21,070, in Texas only $4,900 (not much money for a lifetime's loss in either case). The workmen's compensation system all but ignores occupational diseases. In 1968, states spent an average of only 24 cents per worker for occupational health and safety. As a result, fish and game wardens outnumbered state health and safety inspectors by almost two to one (2800 to 1600), according to a recent AFL-CIO survey.

Prior to OSHA, a few federal occupational health and safety laws existed, but they were limited in scope. The Walsh-Healy Act of 1936 covered firms with government contracts (about 25 percent of all U.S. workers by the 1960's). This law set health and safety standards but they went virtually unenforced. For example, Walsh-Healy inspectors issued formal complaints for only one in a thousand violations they discovered, according to recent investigations of a Ralph Nader task force.

The first comprehensive federal law on occupational health and safety was proposed by Lyndon Johnson in 1968. Compared to OSHA, the proposed law was relatively tough. It gave the Secretary of Labor power to set mandatory health and safety standards and to enforce them through such administrative measures as shutting down plants in case of "imminent harm" to workers; filing court suits to enjoin unsafe practices; and imposing civil and criminal penalties of up to $1,000 for violations of health and safety standards, with each day considered a new violation.

Industry, led by the U.S. Chamber of Commerce, quickly organized a national campaign to defeat the bill. However, for reasons that are not clear, organized labor did no more to support the bill than testify routinely at Congressional hearings. Meanwhile, the rest of the nation was focusing its attention on the Indochina war and on efforts to unseat the President. Under these circumstances, the Administration bill didn't stand a chance.

However, beneath the surface of these events, new pressures were building. Only two years later, Congress, with the support of industry, passed OSHA, a watered-down version of the Johnson bill.

**Why the About-Face?**

First, after hitting an all-time low in 1958, the industrial accident rate has shot up nearly 30 percent in the last decade. Accidents mean lost money for management, both in productivity and in workmen's compensation costs. In 1964, a U.S. Public Health Service report estimated that the annual production loss due to all types of illness and injury came to a whopping 7½ percent of the Gross National Product. Workmen's compensation costs have likewise sky-rocketed. From
1954 to 1963 alone, compensation costs soared 80 percent to a total of $1.6 billion. The gathering momentum of the ecology movement has also struck fear in management, fears that environmentalists may turn their attention from smokestacks and waste water emission to noxious in-plant conditions that give rise to them. Furthermore, workers have become increasingly aware that the long-term dangers which industrial pollution visits on the population at large, must come down even harder on those who work at its source in the factories. Thus according to a 1969 U.S. Labor Department survey, 71 percent of all workers considered occupational safety and health a greater concern than higher wages. Conferences and courses for workers on occupational health and safety, sponsored by unions such as the Oil, Chemical and Atomic Workers and health activist groups like the Medical Committee for Human Rights have begun to spring up across the country, with consistently enthusiastic responses from workers. Thus recent agitation on the environmental issue is coming home to roost in the workplace.

The final push came in November, 1968, ironically just after the defeat of the Johnson bill, when a mine explosion in Farmington, West Virginia took the lives of 78 workers. This sparked a rank-and-file miners’ movement against the negligence of the owners, the laxity of the federal government, and the indifference of the corrupt United Mine Worker’s leadership. It spurred the fight for compensation of miners’ black lung disease, resulting in a major strike and passage of the federal Mine Safety Bill in 1969 (see Health-PAC BULLETIN, September, 1971). This spurred union leaders to fight harder for a comprehensive health and safety bill to protect all workers. Seeing the handwriting on the wall, industry and the Nixon administration decided to move. By 1970, industry may have had additional reasons of its own for supporting a federal occupational health and safety bill. For large companies, it would avoid the crazy-quilt patchwork of state health and safety laws. It might also give large companies an advantage over their smaller competitors, many of which had no health and safety programs in the past, and cannot so easily pass on to the consumer the cost of bringing their plants up to federal standards. And, not incidentally, the law will create a new and lucrative market for measuring and protective equipment. Already DuPont is marketing a pocket noise meter and programmed safety training courses, both developed previously for use in its own plants.

In the (last) 25 years . . .

jobs, machines and equipment have claimed the lives of 400,000 Americans and disabled almost 50 million.

—Karl Mantyla, 1970

United Auto Workers

The Illusion of Change

In 1970, after much behind-the-scenes negotiations, OSHA was passed. As could be expected, it turned out to be a hollow victory for workers. In its two central tasks, the setting of health and safety standards and their enforcement, OSHA’s deficiencies became evident. (For details on the operation of the law, see box, page 17.)

Standards—The Secretary of Labor sets federal health and safety standards based on advice from the National Institute of Occupational Safety and Health (NIOSH). The previous discussion of NIOSH (see page 12) underscores the many weaknesses built into standard setting under OSHA. In summary, standards for only about 450 substances out of at least 10,000 have been set, and many of these have been adopted from previous standards set by and for industry. Research is proceeding at so slow a pace that it will take years to review the existing standards alone, not to mention setting new ones. And, in the last analysis, NIOSH’s recommendations regarding standards are strictly advisory, as was clear when the Secretary of Labor overruled NIOSH on the asbestos standard—its first and only recommendation.

Enforcement—The key to enforcement of occupational safety and health standards is the ability to levy stiff penalties. But penalties under OSHA are puny enough to make the whole enforcement process laughable. Minor hazards entail no punishment at all, merely notification. Penalties even for major violations are trivial. For example, the maximum fine for a serious violation is $1,000. The Labor Department boasts of its toughness by alluding to a provision of the law allowing a cumulative fine of up to $1,000 a day, if violations are not corrected within the time period set by its inspectors. The first application of this penalty, however, occurred in 1972 in the case of a Philadelphia plant which was fined, not $1,000,
OSHA Synopsis

Coverage
OSHA applies to all businesses "affecting commerce" and employing one or more persons. In 1970 it covered 57 million workers in 4.1 million business establishments.

Health and Safety Standards
Initial OSHA standards were drawn from existing federal standards, plus "national consensus" standards, developed for industry to provide guidelines for industrial practice and state laws. Modifications of the standards and new standards are set by the Secretary of Labor.

Plant Inspection
Individual plants are inspected by federal inspectors, who may be accompanied by one or more management representatives and one representative "authorized" by the employees. Inspectors can recommend that plants be cited for violations of health and safety standards, and can suggest penalties and abatement dates by which violations must be corrected. Formally, however, the Secretary of Labor issues all citations. Citations must be posted at the plant near the site of violation.

Penalties
The maximum penalty for violation of an OSHA health and safety standard is a fine of $1,000. Minor violations carry no penalties at all. The maximum penalty for willful or repeated violations is $10,000. If a worker is killed as a result of a willful violation, the penalty is a fine of up to $10,000 and a sentence of up to six months in jail. Failure to eliminate a hazard by the date set by an inspector can result in a cumulative fine of up to $1,000 per day.

Appeals
All aspects of a citation (the violation charged, penalty and abatement date) may be appealed by management to the independent, presidentially-appointed Occupational Safety and Health Review Commission. Workers can only appeal the abatement date. Review Commission decisions may be appealed to the federal courts. Also, the Secretary of Labor can grant a "variance" to permit plant operation in violation of OSHA health and safety standards.

Research
Research on standards is conducted by NIOSH, a branch of the U.S. Department of Health, Education and Welfare. It then makes recommendations on standards to the Secretary of Labor.

Recordkeeping
Employers are required to keep a log of industrial injuries and death on forms provided by the Labor Department. These must be shown to federal inspectors on demand. A general summary of injuries and deaths must be posted yearly in each plant, but workers do not have access to the more detailed records in the log book. No monitoring of health hazards is required, nor must records of any monitoring be kept, unless ordered for research purposes by NIOSH.

State Plans
States can draw up their own health and safety plans. If these are approved by the Secretary of Labor, the states can take over all enforcement powers from OSHA.

Administration
The Occupational Safety and Health Administration, a branch of the Labor Department created by the new law, administers most of responsibilities of the Secretary of Labor. It hires, trains and supervises federal inspectors under OSHA, sets their inspection priorities, and conducts training courses on the law. NIOSH, the other agency created by the new law, conducts research on standards and advises the Secretary of Labor, as noted above.
Atrocities

From time to time, these vats will boil over, and as we have had occasion, people have been burned severely with the acids. We have one case where the maintenance man was lying under one of these huge vats, which holds 300 or 400 gallons of this boiling acid, repairing something under it. The company wouldn't shut the thing down and let him work under it while it was boiling. It boiled over, and fortunately, the company had issued safety glasses, and it preserved his eyesight. He was able to see the skin peeling off 80 percent of his body while he lay there. It is things like this that make me sick.

—Lou Laplaca, President
Local 1668 UAW
Englehard Chemicals and Minerals

A young sprayer was found dead in the field in the tractor which had been pulling his spray-rig. He had been pouring and mixing parathion concentrate into the spray-rig tank. Parathion is the most commonly used of the highly toxic phosphate ester pesticides. The estimated fatal dose is about 9 drops orally and 32 drops dermally. In the process of mixing the concentrate, the worker contaminated his gloves inside and out. He rested his gloved hands on his trousers as he pulled the rig to apply the spray. Parathion was absorbed through the skin of his hands and thighs. He began to vomit, an early symptom of parathion poisoning. He could not remove his respirator and he aspirated the vomitus. The diagnosis of poisoning was confirmed by postmortem cholinesterase tests.

—Irma West, M.D.
Archives of Environmental Health

but $10 a day for 29 days for a total fine of $290. In fact, during the first nine months of OSHA, fines averaged only $22 per violation—less than a parking ticket in midtown Manhattan. This is surely a sensitive indicator of the Labor Department's lack of concern with workers' health.

And if management is still edgy about the new law, it can rest easy with the knowledge that workplace inspections are creeping along at a snail's pace. During the first eight months of OSHA, Labor Department inspectors visited only 17,743 of the 4.1 million workplaces covered by the law. At this rate, they will take 230 years to cover all workplaces. Eventually, the Labor Department expects to increase its present 400 inspectors to 2,000, according to Occupational Hazards, management's weathervane for occupational health and safety. If so, it will only take 46 years to get around to every plant.

In fact, the Nixon Administration has no intention of inspecting every workplace. Nixon mouthpiece Robert Dole (R-Kan.) recently introduced an amendment to exempt small businesses from OSHA. As finally passed, the legislation would remove businesses with less than 15 employees from OSHA's purview. The effect is to remove 85 percent of all U.S. businesses, employing about 25 percent of all workers, from OSHA coverage. These are the very establishments which are the worst health and safety offenders, according to government studies. Luckily, the provision was killed when President Nixon vetoed the HEW appropriations bill to which it had been attached. However, the provision is certain to be reintroduced in the near future by Nixon forces.

Adding Insult to Injury

If OSHA's standards-setting and enforcement mechanisms are biased in favor of management, its appeals process virtually excludes workers. For example, an employer, after being notified of a violation, can appeal the Secretary of Labor's citation, abatement date (date by which the violation must be corrected) or penalties, while workers can appeal only the abatement date. Appeals are heard by the National Occupational Safety and Health Review Commission, an independent review board created by OSHA. If the Review Commission upholds an employer's appeal, the violation is completely thrown out. The worker, on the other hand, has no avenue to appeal the refusal of an inspector to issue a citation in the first place. If he feels that the inspector did a poor job—didn't visit a dangerous area in the plant or didn't take enough air samples—under the law, he is helpless.

The decisions of the Review Commission are not final; they can be appealed to the federal courts. Needless to say, legal expenses hardly give management and workers equal redress through the courts. And finally, in the unlikely event that all of these procedures go against a company, it can still apply for temporary or permanent "variances," that is, for the right to operate in violation of the law.

If this weren't bad enough, OSHA con-
tains provisions transferring all enforce­
ment powers back to the states, the very
states whose half century of inaction and
indifference the new law was supposed to
remedy. Already, every state has received
federal funds, covering 90 percent of its
costs for developing plans to enforce
health and safety standards. If the Sec­
retary of Labor determines that a state
plan is as good or better than OSHA in
its standards and enforcement, the state
will assume all federal health and safety
responsibilities except standard setting.
After that, the federal government will
generously pay states 50 percent of their
costs of implementing these plans. For
the worker, this provision will no doubt
mean a return to the patchwork quality
and palpable injustices of the past.

OSHA's bias in favor of management
is seen in almost every significant provi­sion of the law. But perhaps it is seen
even more clearly in what the law omits.
For example, OSHA does not provide for
the constant or frequent monitoring of
potential health hazards in the workplace.
What value is a standard, if the hazard it
is to limit is not routinely checked? A
single measurement, taken at the discre­tion
of a federal inspector at best every
year or so, is certainly no substitute. This
is especially true, since, according to
labor union reports, companies regularly
slow down production when an inspector
is in the plant. But routine monitoring of
toxic substances would involve intimate
regulation of day-to-day operation in the
plant, and this is hardly on the agenda
either of management or the federal gov­
ernment. Organized labor certainly lacks
the clout to enact such a measure (assum­ing
that it wants to, and this is unclear).

Yet this begs to be done. Without it, occu­
pational health efforts become a sham.

Routine monitoring raises an even
more fundamental issue: Who would
carry out such monitoring? Certainly not
the federal government, for the task would
be Herculean, and the government seems
totally unprepared to cope with the min­
imal commitments it now has. A logical
solution would be to have monitoring
done by people already in the plants. But
company doctors and health and safety
professionals, where present, are paid to
serve the company, not make waves.
This leaves the task up to the workers,
themselves, and they are already show­ing
the necessary capability and interest
to do this. But worker control, of even part
of the production process is anathema to
American industry.

In summary, OSHA is limited in scope,
lacking in enforcement and biased in
favor of industry. But, for the time being, it
remains one of the few options open to
workers struggling around health and
safety issues. OSHA acts to contain this
struggle while, at the same time it ad­
vances it. It binds workers in ribbons of
bureaucratic red tape and moves to head
off growing concern by giving the illusion
of change without its substance. At the
same time, it establishes certain rights
which are basic to a safe and healthy
workplace. The attempt to claim these
rights may focus a latent anger and en­
ergy that could bring important changes
to the workplace. The final outcome—
containment or advance— will depend on
the consciousness and ingenuity both of
American workers and their medical and
professional allies.

—David Kotelchuck

WITCHES, MIDWIVES AND NURSES:
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A 48 page illustrated pamphlet on how women lay healers were
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BEHIND THE COTTON CURTAIN

In 1947 the U.S. Public Health Service concluded that in this country "the problem of serious dust disease among cotton workers is hardly known to exist." In this way they disposed of byssinosis, a respiratory disease known to afflict cotton, flax and hemp mill workers on three continents outside the Americas.

But on January 4, 1972, cotton dust was designated by federal occupational health authorities as one of five priority industrial hazards. This meant that the Secretary of Labor will establish a new standard of maximum allowable dust concentration in the air of textile plants, and will begin a program of enforcement under the Occupational Safety and Health Act.

What happened in twenty-five years was hardly the appearance of a new disease. Rather, it was the shredding of the "cotton curtain," a myth, long fostered by textile mill owners and doctors alike, that cotton dust disease was not a health problem in America. Similar denials have initially surrounded many other industrial diseases, such as black lung, a respiratory disease of coal miners (see BULLETIN, September, 1971). The myth around cotton dust was demolished, particularly in the last decade, by both scientific studies and political action. The latter was undertaken by the Textile Workers Union of America (TWUA), a few sympathetic scientists, and by interested Congressmen. In fact, the essentially political process of combating industrial disease, and of establishing priorities for occupational health research, is clearly shown in the case of byssinosis.

For two centuries it has been widely known that textile workers suffered from respiratory illnesses. In earlier days these were assumed to be tuberculosis and asthma. Detailed studies on byssinosis itself have been carried out in England for the past 70 years.

In the United States the first reference to byssinosis occurred in 1940 when the trade journal Textile World carried a case report on "Card-Room Fever." (Carding is a process of combing into straight fibres the matted cotton pad delivered from the gin to the mill.) The affected worker coughed so violently he had to quit work and filed for workmen’s compensation. His claim was denied by the North Carolina Industrial Commission, on the grounds that he had no evidence of silicosis or asbestosis, the only dust disease compensable under the law. This was no doubt true, since in all probability the worker suffered from byssinosis. Unfortunately the compensation law in North Carolina and other Southern textile states made no mention of byssinosis then and indeed, still does not until the present day.

In 1961 the "dam of ignorance" was broken. An English scientist, Dr. Richard Schilling, refused to believe the prevailing industrial and medical propaganda that American textile mills were too modern to allow cotton dust to become a health hazard. He came here to study some American mills. His study and several since then found that American textile workers have as much byssinosis as those in England and other countries.

But the textile industry has long been based in isolated, patriarchal southern mill towns where scientific evidence, particularly if adverse to industry, was slow to permeate. The dictatorial word of the mill owner was still the law. As far as late as 1969, Dr. Peter E. Schragg, a young public health physician, told Medical World News that the owners of several small textile companies had asked him to investigate an outbreak of respiratory disease among mill workers. "They thought it was some sort of an infection going around. And when I told them it was byssinosis, they were no longer interested in having me continue my investigation." As far as these mills were concerned, that ended
the matter. And they were right since at that time, neither state nor federal officials had right of entry into textile mills.

The Medical Picture

Byssinosis is typical of many industrial diseases. The disability it causes is serious and widespread. Tens of thousands are now thought to be disabled. The general public and even most doctors know almost nothing about it. Medical textbooks, if they mention it at all, usually give it at most a few lines in fine print. Knowledge is scanty of the prevalence, mechanism, cause and treatment of byssinosis.

It is, however, suspected that over 300,000 of the almost one million American cotton textile workers may be exposed each year to byssinosis, also called "brown lung," a disease caused by dust in the air of textile plants. It is particularly prevalent in those workers doing certain processes at the plants, such as carding, spinning and winding. Early symptoms are tightness in the chest, shortness of breath and cough. Oddly enough, these are at first found only on a Monday after a weekend away from work. This strange pattern, which is the critical clue to the diagnosis, is of course, exactly the reverse of that in most acute occupational disorders, which become worse with each consecutive day at work. With time, these symptoms become more constant and more permanent and are eventually disabling. No real treatment exists. The only remedy is to get away from the dust or to get rid of it.

Political Action

Starting in the late 1960's, pressure began to mount to do something in the United States about the 'non-disease' byssinosis. Ralph Nader, in a nationwide TV special that exposed conditions in Cannon Mills' company town of Kannapolis, N. C, called in August, 1969, for vastly expanded federal efforts to combat the disease. This was necessary, he declared, because the industry refused to admit the existence of byssinosis, had thwarted research efforts and had blocked effective state protective action. "The Department of Health, Education and Welfare's (HEW) programs in occupational health have been underfunded and underled for many years," he said. "This deficiency was shown clearly in the 'black lung' controversy . . . I urge you to avoid a repetition of this weakness in the forthcoming challenges to the cotton industry over 'brown lung' disease."

The Textile Workers Union of America (TWUA), the major union in the industry (although it only represents 25% of the textile workers nationally), pressed Congress, the Labor Department and HEW for action. Part of the campaign included heavy pressure for passage of the general Occupational Safety and Health Act, which expanded the proportion of textile plants under federal health jurisdiction from about 10 percent under the older Walsh-Healy Act to 100 percent.

In December, 1969, the TWUA began to press the federal government to provide workers' compensation for byssinosis. Hitherto compensation had been purely a state function, although passage of the 1969 Coal Mine and Safety Act created a precedent for involvement of the federal government.

More recently the union campaign has focussed on a bill sponsored by Rep. Philip Burton (Dem.-Calif.) and 90 others, to establish a federal program of benefits for textile workers suffering from byssinosis. The Burton bill would make employers pay disability pensions to disabled workers, now estimated in the tens of thousands, through a federal mechanism. This, it is felt, would spur industry to invest money it would otherwise pay in compensation, in changes in equipment and engineering practices to eliminate the threat from cotton dust. But the bill has not yet passed. The textile workers are still waiting.

The Politics of Research

In May, 1969, the TWUA invited employers in whose plants the union was active to join the union in sponsoring a program to find the best means to eliminate on-the-job health hazards. They did not receive a single positive response. In November, the union approached the American Textile Manufacturers Institute (ATMI), requesting a joint study of byssinosis. This was turned down. An official of ATMI said that by the time they received the union's request, ATMI had arranged with the Industrial Hygiene Foundation (IHF) in Pittsburgh to do an "independent" study of respiratory problems in the textile industry.

Subsequently, Gordon Hanes, President of the Hanes Corporation in Winston-Salem, N. C, remarked: "I believe Ralph Nader did us a service by calling national attention to this problem. I believe it was no coincidence that the American Textile Manufacturers Institute shortly after Mr. Nader's first blast voted $100,000 to engage the Industrial Hygiene Foundation of Pittsburgh, Pennsylvania, to make a thorough study of the problem of byssinosis."

IHF's Dr. Robert de Treville concluded at the same time, in 1970, that byssinosis is "best described as a 'symptom-complex'
rather than a 'disease' in the usual sense. We feel that this term may be preferable, first, in order not to unduly alarm workers as we attempt to protect their health; and secondly, to help avoid unfair designation of cotton as an unduly hazardous material for use in the textile industry, raising the fear that engineering control of it may be costly and that it may be better, therefore, to switch to some less costly material. . . . It would be unfortunate, indeed, if we were to discontinue use of cotton fibres unnecessarily, as a result of I do not believe that working for industry impairs a scientist's judgement, but it does seem to reflect on his credibility.

—Irving Tabershaw, M.D. Keynote address at the 1971 Industrial Medical Association Convention

not being technically sound in our discussion of potential hazards and controls.” On another occasion, Dr. de Treville argued: “It would be wise to delay temporarily the extensive and expensive changes in plant equipment and procedures aimed at dust suppression alone.”

This advice must have pleased his sponsors, for it could provide textile mills with the excuse to withhold even longer long overdue dust control measures which would prove enormously expensive. In fact, an estimate by the Department of Economics of McGraw-Hill, business research and publishing firm, in June, 1971, disclosed it would cost the industry $110 million just to bring facilities up to present official pollution control standards.

Representatives of “enlightened management’ of the larger mills have moved into sponsorship of byssinosis studies, partly to show the public their concern, and partly in order to forestall less easily controlled investigations in the future. In 1969 media-conscious Burlington Mills sponsored an extensive study of byssinosis in North Carolina, in conjunction with Duke University Medical Center and the North Carolina State Board of Health. This key in with earlier studies by the State that had remained unpublished, according to the Greensboro Daily News Record, because state physicians had been able to gain entrance to plants only on condition of not publishing their findings. Such limitations were overruled by the State Attorney General only in March, 1970.

A frank appraisal of why Burlington undertook its byssinosis study was contained in America’s Textile Reporter on November 13, 1969: “The sooner that the U.S. textile industry can scientifically establish what many industry executives believe, that modern air conditioning and air filtration systems have made byssinosis among textile mill employees an extremely remote possibility, the sooner industry will have a potent tool to prevent Congress from trying to create an elaborate compensation apparatus that might include an ‘assessment’ on industry itself to finance research.”

Universities Enter The Field

In the last two years, byssinosis has won the status of academic concern. A turning point was the National Conference on Cotton Dust and Health, held in Charlotte, North Carolina, on May 2, 1970, under the sponsorship of the University of North Carolina, the State Board of Health, and the U.S. Department of Health, Education and Welfare. Here were assembled 200 scientists and representatives of industry, textile unions, state and federal agencies, and physicians in private practice.

In addition to the importance of its academic setting, several significant factual points emerged at the conference. “Three substantial studies in North Carolina over the last three years of over 1,000 workers,” said one report, “show prevalence rates that are perfectly consistent, almost identical, with those rates that have been shown in other countries.” Furthermore, modern developments in cotton agriculture and the mill process have served to increase the cotton dust released in the textile mills, even as ventilation improvements have labored to remove it.

Actually, since the 1960’s a level of cotton dust in the mill atmosphere of one
milligram per cubic meter of air has been recommended by the American Conference of Governmental Industrial Hygienists (ACGIH) and accepted by the U.S. Department of Labor. As with most health standards in other industrial plants and mines, this level is not achieved in most textile plants. But regardless of the standard, dust measurements are so rarely made in most textile mills, even by insurance companies and government inspectors, that enforcement in any case is minimal.

One of the conferees, Dr. Arend Bouhuys, of Yale, a researcher of international stature noted for his long years of work on byssinosis, hit the nail on the head. "There is a lot that remains to be learned about [industrial lung] ... diseases ... But there is also a serious lack of application of the knowledge that we have, and we don't have to wait until all the answers are in before we can prevent people from becoming disabled."

In the case of byssinosis, mill owners may be in for a lucky technological break. Recent evidence suggests that the real culprit in byssinosis may be the dry, brittle leaves commonly called "bracts." It looks as though it may be possible to dispose of these by such inexpensive technique as washing or steaming the raw cotton. But even if this should materialize, the infamous history of industry denial and neglect of byssinosis stands as an archetype in the annals of occupational disease.

—Desmond Callan

Letters

Dear Health-PAC:

We would like to comment on Susan Reverby's article, "Health: Women's Work," in the May issue.

The article states that nursing has a remarkably high turnover rate, and claims that this is due to several specific problems of the woman health worker: lack of control over hours and assignments; low pay; the dual role of the breadwinner-mother; and the boring and repetitive nature of nurses' tasks. Although there is some truth in this, these problems exist for women in most job situations, and they do not completely explain the high turnover rate peculiar to nursing.

In fact, one could take issue with many of the points. While the cost of nursing education has gone up in the last few years, it is still one of the "cheapest" professions. It is also a profession that doesn't require a college education. A nurse with a few years experience can earn between ten and twelve thousand dollars a year with many benefits: tuition refunds, health, disability and life insurance. Nursing is one of the few women's professions that requires week-end and night work; this is often helpful for the working mother. The private duty or "per diem" nurse can earn between thirty and fifty dollars for an eight hour shift of her choosing. (And in New York, seventy-five dollars for a twelve hour shift.) The wide variety of specialties in nursing allows the nurse further freedom and flexibility.

We would like to explore the one aspect of nursing that we feel is most responsible for the discontent and the high turnover rate. Although you touched on this aspect in your article, we do not feel that it was adequately stressed. That is: "the vast discrepancy between what nurses were trained to do and what they are allowed to do." In nursing school, students receive intensive training in anatomy, physiology, microbiology, psychology, and sociology. We learned about the detailed medical complications of our cardiac patients, about their enzyme values, X-rays, and their emotional state. We were taught how to deal with a dying cancer patient and how to talk to the family. We learned how to teach a patient to take care of a colostomy or give an injection of insulin. We learned the names, side-effects and toxic effects of every medication we gave. After long and tiresome days of floor duty, we were quizzed by instructors about all aspects of our patients' diagnosis and treatment.

As a new graduate, I took my medical text to work every day, afraid something would come up that I might not know about. It soon became evident that all this knowledge wasn't required. My work would be evaluated on whether or not I completed all my chores on time and whether I was neat and tidy. After several jobs, I wondered if this was all there was to being a nurse, and if so, why did I go through those grueling years of school? Why was I given all this information and skill, if it was never to be used?

I once reported to the intern on my ward that I had a strong suspicion that a patient was contemplating committing suicide. He ignored my suggestion and implied that I was young and overly dramatic. I persisted and requested a psychiatric consultation. I went to the first and
second year residents, to the nursing supervisors, and, finally, to the chief of the service. The best I got was a pat on the head. I was told: "If you're that concerned, keep an eye on her." The more common response was: "If you want to be a psychiatrist, why don't you go to medical school?" Two days later, the patient jumped out of a tenth floor window, leaving a husband and two young children. A staff conference was held and our "failure to prevent the incident" was attributed to a "lack of communication."

The major frustration in nursing practice, as we see it, is the nurse's categorical exclusion from any of the decision making mechanisms in patient care. We are not allowed any meaningful participation in planning patient care, other than following orders. They are not called upon to contribute, they are not held accountable for their observations, and they are discouraged from exercising any judgment. Nurses go from institution to institution, not necessarily looking for higher pay or better working conditions, but rather searching for a place where they may have the opportunity to use their training, exercise judgment, and to have some structured manner of contributing to patient care.

To the feminist movement, the "profession" of nursing represents the epitome of sexism in women's careers. It could also be considered a microcosm of a woman's role in society. If this is true, why is it that nurses have not been in the forefront of the women's movement? Most nurses have comfortably and unquestioningly assumed their subservient role. Why is it that the only national organization for nurses, the American Nurses' Association, as of 1971, refused to support the Equal Rights Amendment?

We thank Susan Reverby for her article on women in health; we would like to see the issues peculiar to nursing developed further. Naomi Appel, R.N.
Sally Kilby-Kelberg, R.N.

Dear Friends:
Just a word of congratulations on the June BULLETIN discussing neighborhood health centers. The presentation was clear and positive and the problems pointed out correctly. It might have been more negative and critical thus decreasing the article's educational value.

If you haven't already done so, I would advise making copies readily available to staffs of neighborhood health centers.

—Judy Graham
former NENA staff

Dear Friends:
As a nurse at NENA for two and a half years, I greatly appreciated your June, 1972 BULLETIN. I thought the article was objective and truthful in presenting NENA as it is.

—Nancy Rajsky
NENA nurse

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