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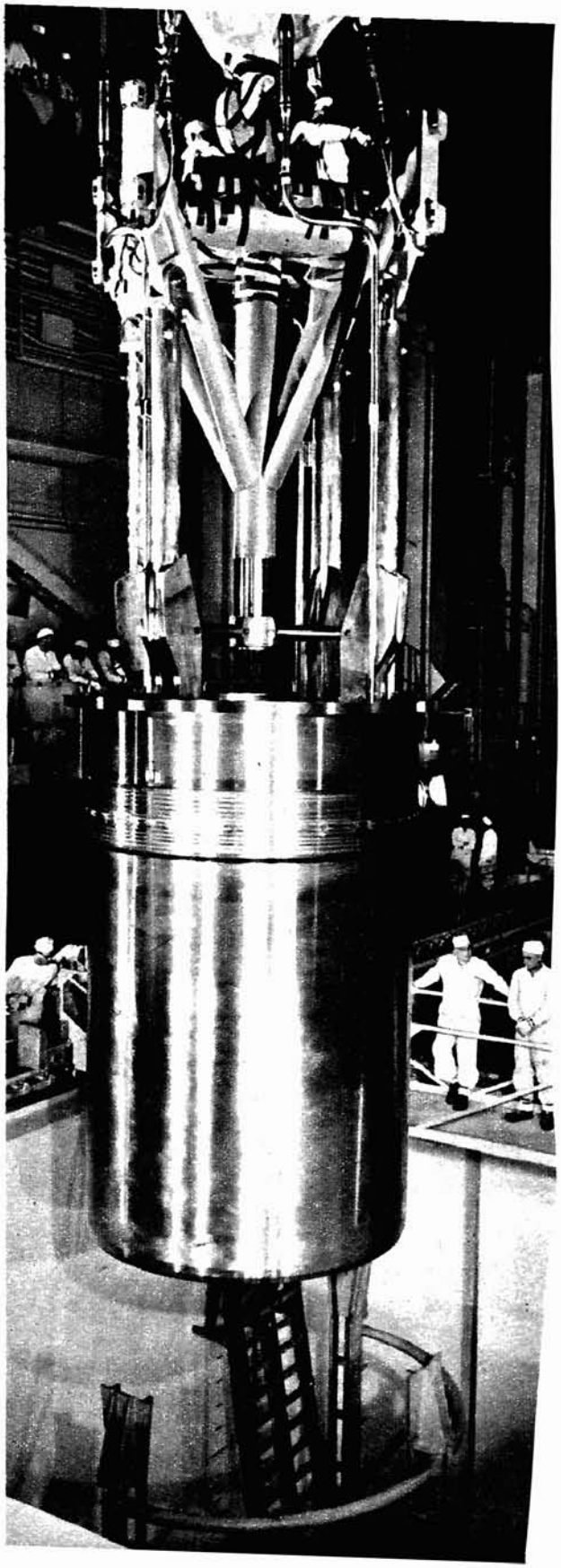
YOUR CAREER IN ATOMIC ENERGY

By Harry Kursh

DECONTAMINATION:
new career at Tracerlab.

TENS of thousands of Americans are face-to-face with the opportunity of getting in on the ground floor—not of a new industry but of a new industrial revolution! Today the atomic energy industry employs approximately 150,000. Within ten years it will need a million new workers—a good number of them in

GIANT ROBOT called O'Man "hands" equipment to GE atomic technician.



HUGE CORE goes into place at Westinghouse A-plant, Shippingport, Pa.

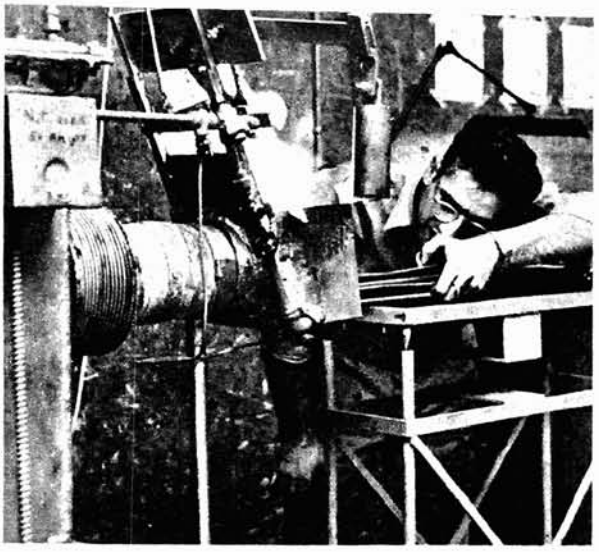
high-paying jobs for which the only training is inside the industry itself. Will you be in on the boom—carving out a brand-new career?

Business history is loaded with success stories of big-money executives who were smart enough to start with a baby industry and grow with it.

Back in the early days of aviation, Bill Lear, a hefty young man from Hannibal, Mo., decided the infant airplane industry would soon need all kinds of navigational instruments. He went into that specialized business and today, at the age of 55, Bill is the boss of Lear, Inc., which rakes in $50,000,000 a year turning out the gadgets that make flying safer and easier.

Or consider the most recent baby industry—electronics. Right after World War II when electronics ranked 40th in the list of American industries, three young aircraft engineers decided there would be a big demand for electronic control instruments. They formed their own company and worked in their home basements after their regular working hours. Today their company, United Control, employs 600 and does a $10,000,000-a-year business.

GE ENGINEER works with model of reactor to iron out arrangement problems.



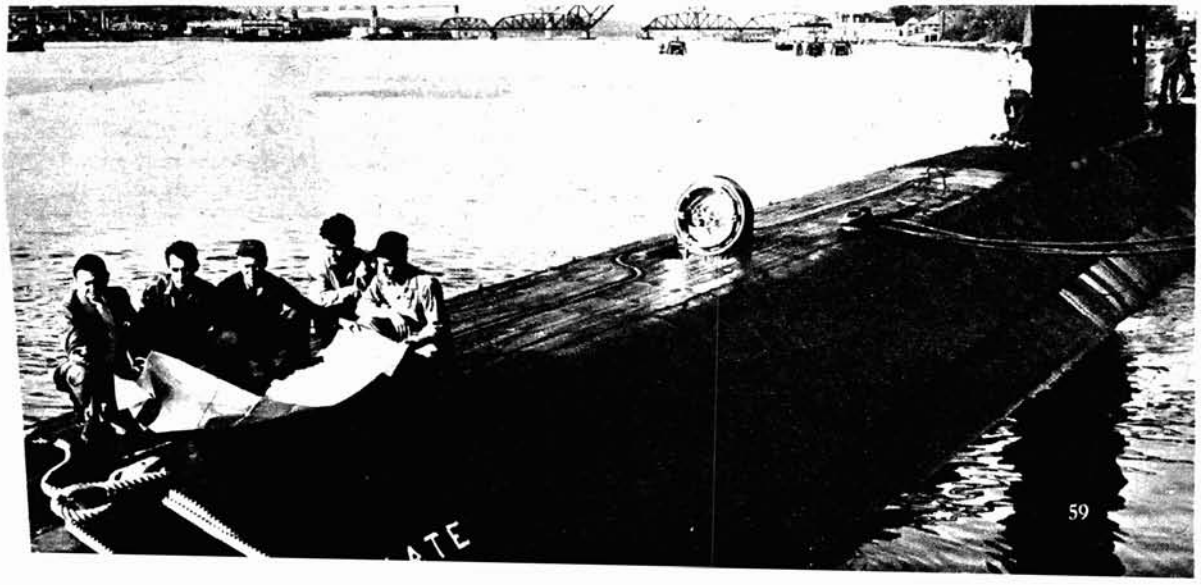
HIGH TEMPERATURE specialist at work at a Nuclear Development Corp. furnace.

Now it may be your chance to ride to the top in atomic energy. It is the fastest growing industry in the world today.

Most of us tend to think of atomic energy in terms of building nuclear reactors for electrical power. Actually, atomic energy is a huge and varied field involving everything from the prospecting, mining and milling of uranium to the use of radioisotopes in medicine and manufacturing, plus the design, development, manufacture, invention, sales and servicing of myriad types of equipment.

But perhaps the biggest mistake most of us make is to think of atomic energy as an industry only for highly trained engineers and scientists. The truth is that the industry will need thousands of skilled craftsmen and technicians, salesmen, lawyers, technical writers, office managers and clerks—all of whom are trained to think in the specialized language of this new industrial revolution. The top-pay employees in atomic energy will probably not be scientists at all. There will be special managerial jobs, as yet [*Continued on page* 176]

GENERAL DYNAMICS apprentices get a look at atomic sub USS Skate.



him a mixture of oxygen and carbon dioxide, using a sedative to relax the diaphragm, pumping out the stomach or injecting an anesthetic along the phrenic nerve. Finally, if all else fails, surgery can be tried.

Surgery is rarely used on acute hiccup victims—because by the time it is considered, the sufferer has been so weakened by his spasms that he's unable to withstand the shock. When it is attempted, the phrenic nerve is crushed to block off all stimulation of the diaphragm. This usually does the trick and the nerve returns to normal soon after.

Finally, as an extra added attraction, we take great pleasure in presenting the MI Cure For Hiccups that, to our knowledge, has never been published before. It has worked in every case (two) in which it has been tried and we recommend it without reservation.

Approach the victim with visage stern and menacing and address him in somewhat this manner:

"All right, you've got the hiccups. So let's hear you hiccup. Come on, hiccup! You think you're so good with your hiccups and all, so let's hear you hiccup. Come on, come on, hiccup! Hiccup, man!"

Demand the victim hiccup and he just can't do it. It may sound silly—but it works. And it's not half as ridiculous as jamming the poor chap's head in a paper bag. •

Career In Atomic Energy

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undreamed-of by the men who will fill them—and those men will come up through the ranks in the fascinating field of atomic energy.

How do you get started in your atomic career?

The first step is to get a picture of the field as a whole—and that will involve some reading. Get everything you can on the subject from your public library. Write away for any booklets you may learn of that are being published on the subject. People interested in recruiting men for the industry are putting out more and more of them.

Here are some publications you should write for now: Careers In Atomic En-

unexpected hefty thump on the back. This is usually sufficient to knock the breathing process back into its regular rhythm. A sudden scare—*Boo!*—will have the same effect. Also recommended: tickling the nose with a feather to encourage a sneeze; jabbing a pin into a rump muscle.

Drinking and eating: Both of these can cause hiccups and both can cure them. Cures: ten slow sips of water. Munch one slice of dry bread. Chew on a wax candle. A dollop of sipping whiskey. A swallow of salt water. A shotglass of vinegar. A taste of Tabasco sauce. A sip of Worcester sauce. A pinch of snuff. Chew a piece of ice. Suck a lemon. Drink ice water. Drink warm water. A glass of hot milk. A teaspoon of baking soda in water.

Physical tricks: These are designed primarily to take your mind off the hiccups and, presumably, relax the breathing apparatus. Pull the tongue gently but firmly. Hang suspended by the arms from an overhead bar. Press the eyeballs until the victim sees spots. Intertwine the fingers and twiddle the thumbs. Spin slowly to the right nine times. Lie down and start reading. Call someone on the telephone. Drink from two glasses of water at once. Swallow 11 times, as fast as possible. Put thumbs in ears, pick up glass of water with extended fingers, drink slowly. Drink water from the wrong side of the glass (a tough one, this).

Breathing cures: These are designed to get the breathing cycle back to its normal rhythm. Take seven deep breaths. Hold your breath for a count of 14. Put your head in a paper bag and take several deep breaths. That last has a firm physiological basis: it increases the carbon dioxide in the lungs and supposedly relaxes the phrenic nerve.

There are several other possible cures—like taking a Mediterranean cruise, buying a DC-7, calling up Marilyn Monroe for a date and speaking to Arthur Miller, juggling six eggs at once, inviting Harry Truman and Douglas MacArthur to join you for breakfast—but we feel they are generally impractical for the majority of hiccup victims.

Should hiccups persist for, say, an hour and none of the above cures has any effect, it would be wise to call a doctor. There are a number of things he can do, including clapping a mask on the victim and feeding

ergy ($.25—Division of Public Documents, U. S. Govt., Printing Office, Washington 25, D. C.); Should You Be An Atomic Scientist? (Free—New York Life Insurance Co., 51 Madison Ave., New York 10, N. Y.); Atom In Our Hands (Free—Public Relations Department, Union Carbon and Carbide Corp., 30 East 42nd St., New York 17, N. Y.); Youth's Opportunities In The Atomic Industry ($.25—Atomic Industrial Forum, Inc., 3 East 54th St., N. Y. 22, N. Y.).

Your special questions about a career in Atomic Energy will be answered by a bureau set up just to do that—Educational Services Branch, Atomic Energy Commission, Washington 25, D. C.

Between these reports and sources of information you should receive more than enough tips and clues to guide you as you plan your schooling for a career in atomic energy.

But advanced schooling is not the only way in. After talking with scores of experts at the Atomic Energy Commission, the U. S. Office of Education and the Atomic Industrial Forum, I learned that one of the industry's most urgent needs is for craftsmen and technicians who must be trained through in-plant training and apprenticeships.

Almost every company in atomic energy has its own on-the-job training program. The Electric Boat Division of the giant General Dynamics Corp. at Groton, Conn., where the world's first three atomic submarines were built, has courses in drafting, nuclear physics, nuclear engineering, technical report writing, and reading scientific Russian. The General Electric Co. and Westinghouse Corp. are training thousands for such things as operating nuclear reactors and combating nuclear accidents. If you can't afford to go back to school, your best answer may be a job with a company in the atomic field, where you will learn while you earn.

How do you get such a job? One good way is to begin by visiting your local state employment office. Ask for an interview with the job or guidance counsellor. They know or can find out which companies in your area are in atomic work.

Since almost every company now in atomic energy holds an AEC contract or license, it would also be a good idea to contact the nearest field office of the Atomic Energy Commission to ask about

employment opportunities in companies near home. If nothing else, the field office may be able to provide you with the names and addresses of such companies and you can write or visit them for employment information. Get the AEC field office address from the telephone book; out-of-state field office addresses may be obtained from the AEC's headquarters in Washington, D. C.

In atomic energy as in other industrial fields, the correspondence schools play a part in training people for advancement. To keep in touch with study opportunities via correspondence schooling, write to: National Home Study Council, 1420 New York Ave., NW, Washington 5, D. C.

Scarcely a day passes when some new discovery or new development does not create a new career opportunity in atomic energy. Take the occupation known as health physicist, for instance. It was unknown a few years back. Today it is one of the most important and fastest growing fields in atomic energy.

The health physicist, you might say, is the FBI man of the atomic age. It is his job to make sure we are protected against accidental or industrial over-exposure to radiation. He has to learn how to use a variety of instruments to investigate and detect radiation leaks and the abuse of radioactive materials which might endanger people or animals or contaminate farm products. And this is only one of many new careers opening up in atomic energy. Is there one in the field for you?

There is no need to make a decision overnight; the atomic industry is here to stay. It may be years before the demand catches up with the supply of manpower. But the quicker you decide to get in on the greatest industrial revolution in history, the quicker you may ride to the top. •

What Is Your Electric IQ?

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Answers

1. False. One 200-watt bulb gives 80 per cent more light than eight 25-watters. A 200-watter sheds 3,700 initial lumens of light. Each 25-watt bulb gives only 260, a total of 2,080 for the eight.

2. False. Edison invented the first electric incandescent lamp but it was Sir Humphrey Davy, in 1800, who first discovered illumination by electricity.

3. False. Fluorescent lamps emit ultraviolet light which would hardly be visible if clear glass tubes were used. Bright glow results from fluorescent powder inside tube which glows when ultraviolet light shines on it.

4. False. There is no electricity in a storage battery when not in use. When terminals are connected, chemical changes take place, resulting in creation of electricity.

5. True. Look in your history book.

6. False.

7. True.

8. False. Thales, ancient Greek, is believed to be discoverer of static electricity. He found that when he rubbed amber, straws and dried leaves were attracted to it.

9. True.

10. False. Electromagnets are wound on soft iron.

11. Lightning and electricity are the same thing.

12. Michael Faraday is correct answer. Kettering invented self-starter.

13. Alessandro Volta, Italian physics professor who died in 1827.

14. 1,000 hours.

15. Watt is a unit measuring consumption of electric power. Volt is measurement of electrical pressure. Ampere is measurement of the flow of electricity.

16. Electric clock, 1 to 3; refrigerator, 225 to 350; flatiron, 550 to 1,000; home electric fan, 25 to 75; electric stove, 4,500 to 8,500.

17. Nikola Testa devised the alternating current induction electric motor.

18. Guglielmo Marconi.

19. Samuel F. B. Morse uttered these words over world's first long-distance telegraph line between Baltimore and Washington in 1844.

20. First words spoken over telephone by its inventor, Alexander Graham Bell, in 1876.

Give yourself five points for each correct answer. Here's how to interpret your score: Zero to 30—You're top short-circuit man; 35 to 55—You've got your wires crossed; 60 to 80—Electrician first class; 85 to 100—New wizard of Menlo Park.•