

PUBLIC HEALTH

Check-ups for Health

➤ **PRESCRIPTION** for the executive: Have a periodic emotional check-up.

Take time to review your past and evaluate your present in the light of your goals, particularly in your family relationships. Schedule vacations and hobby time. Improve your ability as a leader, not just on the job but at home and in the community. Understand yourself better, especially how you handle your hostile feelings.

This prescription was issued by an outstanding psychiatrist, Dr. William C. Menninger of the Menninger Foundation, Topeka, Kans. Dr. Menninger recommends that companies provide regular emotional check-ups for their executives. These are times, he points out in the *Menninger Quarterly* (June), that exact a heavy toll from these men and women, so that jokes are told about one-, two-, and three-ulcer executives.

The periodic emotional check-up, in place of pulse and blood pressure, should reveal how well the executive is able to get along with his associates. Is he a prima donna? How frequently do his bad days occur?

What happens when things are at their worst? Does he lose his temper? Does he get jittery? Does he become so anxious he cannot function?

Is he able to find release for his anxieties and tensions outside of his business life? All of us are upset at times when the pressure mounts, but if one is chronically tense and anxious and unable to find relief for his distress, he is emotionally sick.

The executive should take vacations. They are good for his mental health. The man who boasts he has not had a vacation

in five years betrays poor judgment rather than virtue.

He is being unfair to his family and perhaps also to his business.

Both at the office and at home, the executive must be prepared to delegate responsibility—he must know when to act authoritatively and when to share the making of decisions with others, be willing to listen as well as to speak out.

The executive must stand ready to give to the community as much of himself as he can afford, not just his money, but himself.

“One of the ingredients in my prescription,” says Dr. Menninger, “is for the executive to have ‘a mission’—beyond the job, beyond himself—in which he believes and which will make his part of the world a bit better for his being in it.”

Science News Letter, July 12, 1958

TECHNOLOGY

New Soles for Navy Shoes Outlast Old Ones by 50%

➤ **LEATHER SOLES** impregnated with butyl rubber and resins promise longer-wearing, water-resistant shoes for Navy men and civilians alike.

Shoes strengthened by the new development in sole leather have been wear-tested for more than three years, the Department of the Navy's Bureau of Supplies and Accounts has reported. The impregnated sole leather outlasts conventional soles by 50%.

This development, Navy officials believe, represents the “most forward step in sole

leather technology during the past half century.”

Use of the leather, which is vegetable tanned, is expected to cause savings in shoe costs, less frequent shoe repairs, decreased production time and less reliance on imported tannins, previously considered an essential in leather making.

Now being produced commercially by major sole leather tanneries, much of the new leather is being used to make children's shoes.

The sole leather was developed by the National Bureau of Standards in cooperation with the Navy.

Science News Letter, July 12, 1958

MEDICINE

Bureau of Mines Produces Chromium Cancer Fighter

➤ **CANCER-FIGHTING** radioactive “bullets” have been developed by Bureau of Mines scientists.

The “bullets,” designed to be either “shot” or implanted into cancerous tissue, are small metal cylinders cut from fine strands of high-purity chromium wire produced only at the Bureau's Northwest Electrodevelopment Laboratory, Albany, Ore. They measure a tenth of an inch in length and are a thirtieth of an inch in diameter.

The chromium bullets are exposed to neutrons in a nuclear reactor and made radioactive so they emit gamma rays in the manner of radium.

The radioactive chromium-51 cancer-fighter has been used in animal experiments. Results of work by Dr. William G. Myers of the Ohio State University Health Center indicate that it may prove valuable in treating cancers in humans.

Science News Letter, July 12, 1958

ENGINEERING

Outer Space Simulated In Pitch-Black Tunnel

➤ A **PITCH-BLACK** tunnel, seemingly 300 miles long, is Raytheon Manufacturing Company's newest contribution to the nation's defense planning.

Used in infrared ray detection experiments, the tunnel actually is composed of three tunnels, each 100 feet long, 8-feet wide and 8 feet high. By means of mirrors and a light “minifier,” targets are made to appear as much as 300 miles out in darkest space.

For best results, tunnel experiments are conducted in pitch blackness and at a controlled cool temperature. Special black, reflection-free paint is used, and constant checks are made for light leaks. The tunnel air-conditioner could handle five normal homes.

Dust filters keep optical surfaces clear of contamination.

Ability of infrared search rays, invisible to the human eye, to seek out targets at long distances is expected to make a major contribution to various defense programs, Raytheon officials said.

Science News Letter, July 12, 1958



INFRARED RAYS SHED LIGHT—Targets like the model plane suspended at the end of the pitch-black test tunnel are illuminated and detected with invisible infrared rays at the Raytheon Manufacturing Company's laboratories.