

MEDICINE

Plagues Possible Today

The devastating epidemics of yesterday are not yet a thing of the past. Psittacosis and bubonic plague are two dangers that threaten.

► MANKIND still faces plagues that could sweep thousands to their death, Dr. Karl F. Meyer, director emeritus of the University of California Medical Center's George Williams Hooper Foundation, warned.

In spite of vaccines, modern chemicals and antibiotic remedies, Dr. Meyer told a group of doctors and research scientists at the National Institutes of Health, Bethesda, Md., the threat of nation-wide and even world-wide epidemics similar to the plagues of old exists today.

Parasitism, Dr. Meyer pointed out, is at least as old as recorded history and it has played a chaotic role by interfering with man's survival from time to time during that history. For the first time in the last half century, Dr. Meyer said, man has begun to effectively fight back. Through his own intelligence and diligence, he has now interfered with parasitism to the point where he can control the chaos.

But even vaccinating everyone in the world against a disease would not insure its disappearance, Dr. Meyer explained.

Among the reasons for this belief, he gave the following:

1. Vaccination or immunization must usually be repeated in the individual.

2. Such immunization certainly would have to be done with each new generation.

3. Most important, vaccinations and drugs that cure the disease in one or more patients, still leave the infecting parasite or germ free to carry on its latent existence.

In the third case, Dr. Meyer said, "very few parasites depend solely on man for their survival."

Dr. Meyer pointed to the problems of bubonic plague, which claimed the life of one man on the West Coast last year, and psittacosis, a pulmonary disease passed from birds to man, as two of the challenging-type epidemics that could break out in this

country. Both diseases, he said, present difficult situations for scientists in this nation today.

Dr. Meyer issued his warning in presenting the sixth R. E. Dyer lecture at the Institute's Clinical Center.

Science News Letter, March 9, 1957

ZOOLOGY

Sandhoppers Learn to Turn Night Into Day

► THE HUMBLE SANDHOPPER can learn to change its rhythm of activity and "remember" to keep the change in force for at least a week.

Evidence for this learning and "memory" in this small crustacean is reported in *Nature* (Feb. 16) by zoologists Drs. D. W. Featherston and R. J. MacIntyre, who conducted the research while at Canterbury University College, Christchurch, New Zealand.

Dr. Featherston is now at Nelson College, Nelson, New Zealand, and Dr. MacIntyre has moved to the Division of Fisheries and Oceanography at Cronulla, New South Wales, Australia.

The amphipod sandhopper, *Talorchestia quoyana*, burrows in the fringe of New Zealand sand beaches. It remains below ground by day and forages the shore at night. Under natural lighting, activity of the sandhopper reaches its peak at midnight and fades to no activity during the day.

The zoologists tried putting the sandhoppers under artificial light at night and kept them in darkness during the day. Almost immediately they changed their rhythm to low night activity and high day activity. Then the sandhoppers were kept in continuous darkness for eight days and nights.

The sandhoppers maintained their newly-learned reversed activity for about a week, but drifted off at the end of the eight days toward a random level of activity.

Science News Letter, March 9, 1957

SPECTROSCOPY

Interference Threatens Nation's Defense System

► THE NATION'S defense system is threatened by interference resulting from widespread use of electrical and electronic equipment, Brig. Gen. E. F. Cook of the Signal Corps Engineering Laboratories, Fort Monmouth, N. J., said.

There is "urgent need" to prevent or reduce this pressing problem, he told the opening session of a Radio Interference Reduction Conference in Chicago.

Gen. Cook said each year brings new ideas for electrical and electronic equipment, but that electrical interaction among them is at the same time promoting the uselessness of such equipment. He called the electromagnetic spectrum, which includes electric, radio and light waves, the "most critical" of our resources.

Science News Letter, March 9, 1957



CATAPULTING INTO THE PAST—An exact replica of a catapult used in 200 B.C. was built by Richard G. Plummer of Milwaukee, Wis., a Cornell student. The catapult, invented by the Greeks and copied by the Romans, was standard artillery until about 300 A.D. Using a torsion principle of propulsion, it made a fundamental change in warfare. The strands of rope (the Greeks used animal gut or human hair) were twisted by drawing back bow-like arms inserted in them, and the projectile discharged by releasing a trigger.