

an early morning twilight song of great beauty and of musical interest because it can be "described definitely and analyzed mathematically," a leisurely daytime song, and an evening twilight song.

Composed of three different phrases repeated hundreds of times in varying order, the twilight song is a continuous musical composition. Because the three phrases are easily identified, it was possible for 22 observers, working independently, to cooperate with Dr. Craig in a statistical study to determine the order of the succession of the phrases.

The wood pewee is the only wild bird, anywhere in the world, whose song has been observed cooperatively and analyzed statistically to determine the order of succession of the phrases and hence the musical structure of the song.

*Science News Letter, July 22, 1944*

#### MEDICINE

### Growth Hormone May Be Tested by New Method

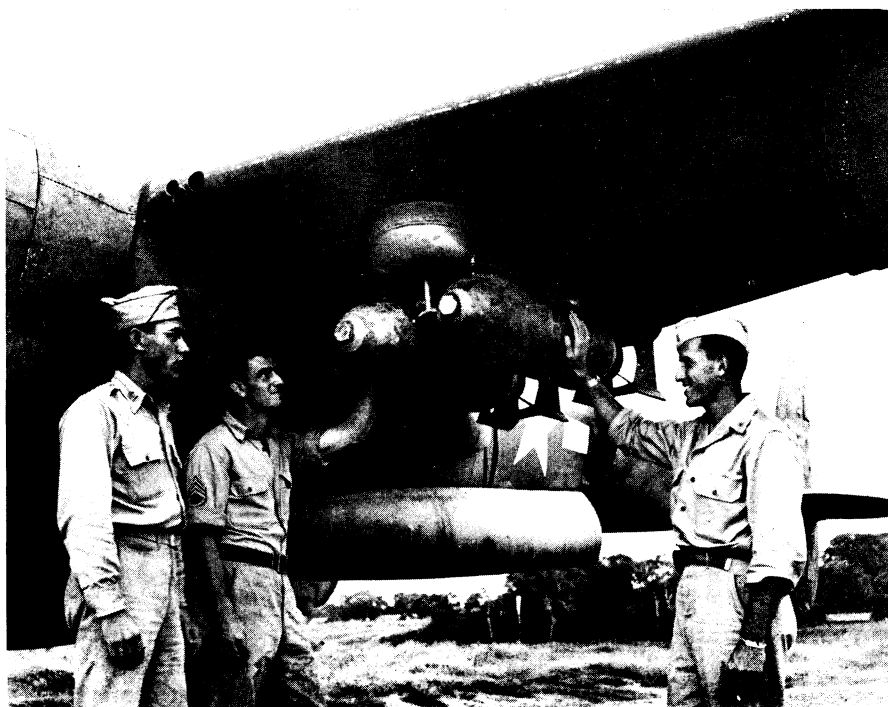
► AN ACCURATE, sensitive method for testing the potency of the pituitary growth hormone has been worked out by Dr. Herbert Evans, Dr. Miriam E. Simpson and Dr. Walter Marx, of the University of California.

The test is based on the fact that a cartilage disk on the end of one of the leg bones, the epiphyseal cartilage of the tibia, changes its width in proportion to the increase of weight of the young rat as it grows. The solution of the growth hormone to be tested is injected for four days in succession into an immature female rat from which the pituitary gland has been removed. At the end of the fifth day the tibia is dissected, split, and hardened with formalin. It is then treated with a silver solution, exposed to light, fixed, and washed, somewhat in the manner of a photographic film. The epiphyseal cartilage shows up as a white band which may be measured under the low-power microscope. Width of this band is proportional to amount and strength of the hormone, the scientists found.

Trial of the growth hormone is as yet limited to work with animals but standardization of a test for potency is one of the necessary steps before any hormone can be used clinically on humans, Dr. Evans pointed out.

The cartilage test is 11 times as sensitive as measuring the growth-promoting qualities by means of increase in body weight of the animals.

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**BOMB RACK IN WINGS**—The 13th Air Force Service Command in the South Pacific has produced a more versatile and powerful P-38 Lightning plane by designing the external wing bomb rack seen in this official U. S. Air Forces photograph.

#### PUBLIC HEALTH

## Polio Cases Increase

► INFANTILE paralysis cases increased in five states during the week ending July 8, reports received by the U. S. Public Health Service in Washington show. For the nation as a whole, excluding Rhode Island from which no report was received, there were 289 cases, compared with 222 the previous week and 244 for the corresponding week of last year.

Dr. Charles Armstrong, one of the U. S. Public Health Service's experts on infantile paralysis, has returned from North Carolina, where he went at the request of the state health officer. North Carolina is having the worst of the current epidemic and is suffering from a shortage of physicians. This state reported 94 cases for the week ending July 8, 84 the previous week, and a total of 269 so far this season.

All infantile paralysis patients in the state are being hospitalized. At Hickory, center of the outbreak, a nearby boys' camp was rapidly converted into a hospital. Red Cross nurses are on the job, there are plenty of respirators, and the children are getting the Kenny treat-

ment. Dr. Armstrong praised the way in which state and local health authorities, assisted by the Red Cross, the Army and the National Foundation for Infantile Paralysis, have been handling the

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