

is made by immune factors in the tissues of the body. The third line of defense is held by immune factors in the blood. All of these are important in resisting infection, and the fourth factor, which Dr. Locke calls the metabolic defense, is only an emergency defense which carries the animal along until the other defensive forces can be mobilized. It is this

emergency defense which can be determined by measuring the warming time.

The warming time is impaired by excessive loss of blood, infection, prolonged starvation, morphine poisoning, being kept in too warm an environment and by other influences which impair vitality.

Science News Letter, April 27, 1935

SEISMOLOGY

Formosa's Tragic Earthquake Recorded by Seismographs

Four Heavy Shocks Wrote Their Stories on Instruments in U. S. on Thursday, Friday, Saturday

FORMOSA'S tragic earthquake, heralded through the press on Easter Sunday, tried to tell the world about itself for three days before it finally succeeded in getting a hearing.

Seismograph records, reported to Science Service through a cooperative arrangement with the U. S. Coast and Geodetic Survey and the Jesuit Seismological Association, show that there were four heavy shocks, one each on Thursday and Friday and two on Saturday. The records indicated severe earthquakes at a long distance, but were not clear enough to permit an exact location of the epicenter, which is frequently possible by these means before cabled or wireless news can come through.

The first intimation came late on Thursday, April 18, when observers at St. Louis University and the Pennsylvania State College wired that an earthquake had occurred at a little after five o'clock in the afternoon, eastern standard time.

On the following day, seven stations reported another quake in about the same place, this time at ten in the morning, eastern standard time. The reporting stations included two of the previous day, together with those of the Dominion Observatory, Ottawa; Georgetown University, Washington, D. C.; the private observatory of Mrs. M. M. Seeburger at Des Moines, Iowa; and the U. S. Coast and Geodetic Survey stations at Chicago and Honolulu.

Saturday, April 20, was not more than a few minutes old when the instruments again did their dance of death, and again at about five in the morning of the same day another shock was recorded. The Saturday quakes were reported by seismolo-

gists at the University of Michigan, Ann Arbor; the Philippine Observatory, Manila, and the U. S. Coast and Geodetic Survey station at Tucson, Arizona, and Honolulu.

Delay in getting out direct wire or radio reports from Formosa is ascribed to the disruption of all communication facilities. It was stated on Monday that the Japanese authorities were still using carrier pigeons.

Science News Letter, April 27, 1935

PHYSICS

Hope of "Cold Light" Called Romantic Delusion

"COLD LIGHT" like that of fireflies and shining sea-creatures is a delusion, so far as hopes of producing similar illumination cheaply by human agency is concerned. Experiments at the laboratories of the General Electric Company produced "cold light" with entire success by means of chemical mixtures—but the cost was 25 million times as great as that for the same amount of light produced by the most economical new illuminating unit, the sodium vapor lamp.

Science News Letter, April 27, 1935

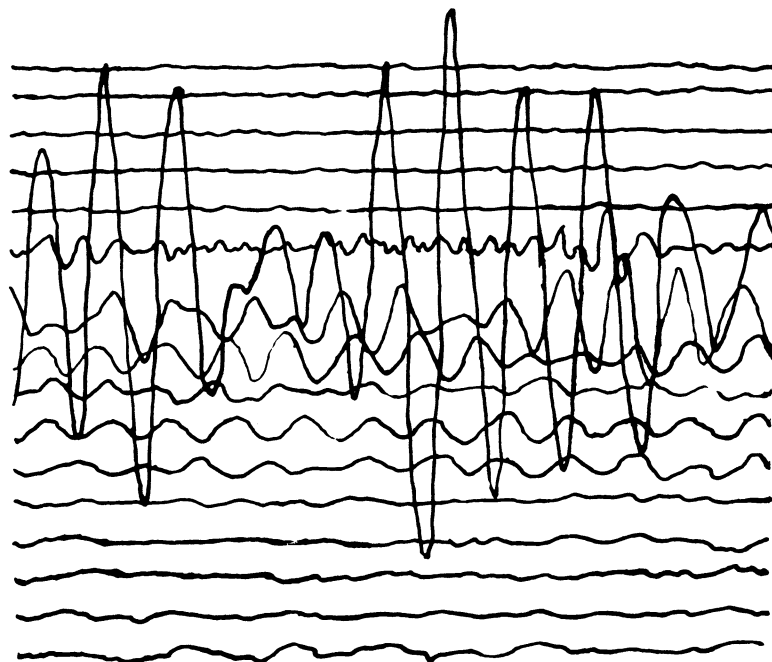
PHYSICS

Artificial Lightning Makes Electrical Fountain

See Front Cover

WHITE hot is the shower of metal particles shown on the front cover of this week's SCIENCE NEWS LETTER. It was caused by an artificial lightning bolt striking a resistance wire. The photograph was made at the General Electric Company's high-voltage laboratory at Pittsfield, Mass.

Science News Letter, April 27, 1935



AN EARTHQUAKE "COVERS" ITS OWN NEWS

How the record of one of the terrible shocks that devastated Formosa looked in its own "handwriting" on a Georgetown University seismograph. The sudden change from little "wiggles" in the line to big ones (near upper right corner of record) indicates the moment when the other side of the earth began to heave and shake, bringing death and terror to thousands of bewildered Orientals.