

FORENSIC MEDICINE

Time of Death Told By Taking Temperature

► IF YOU ever stumble across a dead body and you are interested in knowing how long ago death occurred, here is how you do it:

Subtract the internal body temperature from 98.6 degrees Fahrenheit, the normal temperature. Divide the result by 1.5. This will give you the number of hours that have elapsed since death.

An editorial in the *Journal of the American Medical Association* (July 12) gives this formula but warns that it is only a rough one. If the corpse is fat, it does not cool so fast. If the corpse is well clothed, that affects the rate of cooling.

It is because of these and other factors that the time of death is not so easily established in real life, or death, as it seems to be in murder mystery stories.

Immediately after death a series of physical and chemical changes take place and these continue in more or less orderly sequence until the remains disintegrate. The body cools, the blood gravitates to the skin, the muscles first relax, then stiffen and then relax again, there are chemical changes in the blood and tissues and finally—putrefaction.

The rate at which putrefaction sets in varies enormously. It depends upon the health of the person involved, on his age, on the heat of the day.

An insect expert may be able to aid in determining the time of death by studying the kinds of insects that attack the body.

Science News Letter, July 26, 1952

METEOROLOGY

Jet Stream Predictions Are Now More Accurate

► JET STREAMS, those powerful, 200-miles-per-hour wind currents which are found 30,000 feet up, can now be predicted with greater accuracy.

This is important to high flying Air Force bombers and fighters and is becoming more important to commercial airlines as they fly higher and faster. A 200-miles-per-hour head wind can make hash of an airliner's schedule.

The new method, still in its experimental stage, was developed by Dr. Herbert Riehl of the University of Chicago and Capt. C. O. Jenista of the Air Force. The first month's trial showed better results than had ever been achieved before.

The weathermen used a formula by which they could calculate the rate of propagation of the lines on a weather chart indicating points with equal wind speeds. This gave them answers to the questions of how fast the jet stream would be 24 hours from now and what its direction would be. Their findings appear in the *Journal of Meteorology* (June).

Science News Letter, July 26, 1952



SUPERSONIC WIND TUNNEL—The test chamber, housing the controls, instruments that record research data and the section of the tunnel where models are tested, is shown in this photograph of the National Advisory Committee for Aeronautics' six-by-six foot tunnel in operation.

MEDICINE

Polio Preventive Trial

Second large-scale trial of gamma globulin for preventing infantile paralysis made in Iowa-Nebraska area. Aim is to inoculate 16,500 children, half with harmless substitute.

► THEY LINED up for "G.G. shots" in Sioux City, Iowa, during this past week for the second large-scale trial of gamma globulin as a poliomyelitis preventive.

First of these trials, under the direction of Dr. William McD. Hammon of the University of Pittsburgh, concluded at Houston, Tex., on July 12. A total of 33,137 Houston youngsters aged one to six were given the "shots." Half of them got gamma globulin, half a harmless substitute identical in appearance. (See SNL, July 12, p. 19.)

In the Greater Sioux City area, center of Woodbury County, Iowa, and Dakota County, Nebr., the children were in the age group one to 11 years. The aim was to give "shots" to 16,500 children during the six days from July 21 through July 26. The age group was picked because 67% of the polio cases in the area are among children in these ages.

The Sioux City area was picked because it is becoming one of the nation's hot spots for polio. Latest reports to the U. S. Public Health Service show cases in Iowa jumped to 72 for the week ending July 12 and to 35 in Nebraska. (See p. 62.)

The trials in Sioux City, as in Houston, are being made under a grant from the National Foundation for Infantile Paralysis

with blood gamma globulin furnished by the American National Red Cross. Local doctors and nurses are assisting the National Foundation team in giving the "shots."

Further such trials will probably be made as the polio season progresses. Object is to learn whether gamma globulin from pooled plasma from blood banks contains enough polio-fighting antibodies to protect youngsters from the disease. The protection will not be lasting, but probably will be long enough to see the child through one polio season at least.

Which child gets gamma globulin and which gets the harmless substitute will be known only to the master statistician who will check all the records to see how many, if any, of the children given gamma globulin escaped polio compared with those who did not get this blood substance. It will be three or more months before his report.

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Attracted by lights, *moths* of the genus *Hylesia* often swarm to tankers anchored at the Maturin Bar in Venezuela; as they brush against the crew or beat against the ship, their finely barbed hair comes off and gets in sailors' skin, giving them "the butterfly itch."