Anniversaries of Science

May 26, 1919—U. S. seaplane NC-4 arrived at Lisbon, completing first Atlantic crossing by air.

On the evening of May 16, the three seaplanes leaped into the air for the long flight to the Azores. As they sailed along, a destroyer below would send up a column of smoke by day and flash searchlights or star shells at night, so that the men in the air might know where they were. Thus the bold airmen flew over the station ships below, one by one. They were nearing the end of the jump to the Azores, 1,380 miles long, when they ran into a thick fog. The pilots could see nothing. All about them was this thick mist. They could not climb up out of it. Everything depended on cool heads and stout hearts. At last, the NC-4 managed to climb out of the fog and arrived at Horta in the Azores, fifteen hours and thirteen minutes after she had left Newfoundland. The NC-1 and NC-3 both had to alight on the water. Lieutenant-Commander Bellinger and his crew were taken off the NC-3 by a steamer and landed at Horta. The NC-1 had been badly pounded by the waves, and her crew worked desperately to keep her afloat before they were taken off.

The men of the NC-3 had a terrible experience. All during the night a rainstorm beat upon her and all the next day she had to face a gale. She could not tell where she might be found; her wireless apparatus could be used only in the air because the current was generated by a little propeller driven by the wind as she sped along. As for seeing her—she was about as easy to see on the ocean as a speck of dust on a plate-glass window. High seas began to break over her; the ribs of the lower wings cracked and the fabric that covered them split. Finally, the elevator was swept off. The hull leaked badly, so that the pumps had to be kept going to keep the ship afloat. With a shout, the men greeted the sun, which all at once came out. Thirty-five miles away they saw a mountain. In a desperate attempt to reach land they let the wind blow the NC-3 along as it would a sailboat. Night fell again. Still the heavy sea tossed the frail vessel about, and still the storm raged. By daylight nothing was left of the lower wings except a few of the heavier beams. Early in the morning San Miguel hove in sight. Seven miles off Ponta Delgada, the battered NC-3 was sighted. A destroyer steamed out at full speed to help her. But the men on the NC-3, for all the hardships that they had endured, would not give up the ship. They brought the NC-3 into the harbor under her own power, "taxiing" over the waves, a mere floating wreck. They had been in the water fifty-three hours, making desperate efforts to reach port, and had suffered hardships. Their sandwiches had become soaked with sea water and could not be eaten. They had only a few pieces of chocolate. Rusty water from the radiator was all they had to drink.

Only the NC-4, commanded by Read, was fit to keep on, and keep on she did. Early in the morning of May 26, 1919, she left Ponta Delgada, to which she had meanwhile flown from Horta, and started on the 891-mile flight to Lisbon. She made the run in nine hours and forty-three minutes. All Lisbon cheered, blew whistles and waved handkerchiefs and flags when she came into the harbor.

—Kaempffert: *A Popular History of American Invention.*

May 28, 585 B. C.—Most probable date of solar eclipse which, legend and accounts of ancient writers say, was predicted by Thales of Miletus, earliest Greek astronomer. It is possible that he could have predicted an eclipse for that year. Whether the eclipse actually occurred on the predicted date cannot now be absolutely proved.

Science News-Letter, May 21, 1927

PHYSIOLOGY

Blood Speed Same

The average time required for the blood to circulate from one arm around through the circulatory system to the other arm is eighteen seconds. This rate of flow is practically constant for all ages. Such is the report by Dr. Hermann L. Blumgart and Soma Weiss of the Thorndike Memorial Laboratory, Harvard Medical School, which appeared in a recent issue of *The Journal of Clinical Investigation.*

In order to determine the velocity of blood flow in man, an active deposit of radium was injected into the cubital vein of one arm and the time counted, by stop watch, for the active radium to reach the arterial vessels about the elbow of the other arm. A sensitive apparatus detected the active radium deposit the instant it arrived in the arterial vessels of the elbow of the opposite arm.

Measurements of the rate of blood flow were made on fifty-three normal male individuals ranging in age from fifteen to seventy-five. The average arm to arm circulation for these individuals, regardless of age, was found to be eighteen seconds.

Science News-Letter, May 21, 1927

ENTOMOLOGY

Planes Aid Flood Victims

From boll weevil control to relief work in the Mississippi flood area has been the long "hop" taken by government planes under the direction of a government entomologist. His work temporarily halted by the inundation of 2,000,000 acres of cotton land, B. H. Coad, U. S. entomologist in charge of cotton insect investigations, has turned his attention from boll weevils to flood victims. Instead of bringing death from the air to the insect pest, he is bringing life to the inhabitants of the flooded regions about Scott, Mississippi. The planes are those used by the Delta Entomological Laboratory at Tallulah, Louisiana, in experimental spraying of the cotton fields.

Science News-Letter, May 21, 1927

PSYCHOLOGY

Rats Good Swimmers

White rats are expert swimmers, but they swim with the one idea of getting to dry land. This is shown by experiments conducted at Harvard by Prof. William McDougall and his son Kenneth D. McDougall.

Results of the experiments, which appear in the *Journal of Comparative Psychology,* show that as soon as a white rat is placed in water, he begins to make strenuous efforts to get out.

It is not until about three weeks after birth that the rat swims well. After three weeks, a rat placed in a tank of water for the first time swims perfectly, but always with the one purpose of finding some means of escape from the water.

If there is no exit from the tank, and if the walls are too smooth for the rat to climb he will sooner or later dive to the bottom voluntarily and explore the walls around the bottom. If an underwater exit is found the rat will at once swim through this exit. Even when two barriers were so placed as to make diving difficult no rat out of 200 failed to learn to dive at the required places.

Science News-Letter, May 21, 1927

PSYCHOLOGY

The Ways of Psychologists

This week's prize winning poem in the Science Service scientific poetry contest.

Psychologists of years gone by
Would sit at home and rest,
And contemplate with inward eye
The mind they knew the best.

A generation later came
The electric instrument,
Which ardent devotees laid claim
Would show a person's bent.

They thought the time it takes to click
A telegraphic key,
Would mark the slow ones from the quick
As fast as eye can see.

The mental testers next displayed
Some questions on a page,
Directions, too, which when obeyed
Would tell your mental age.

At first they picked out stupid folk,
And then the problem child,
And now the psychologic joke
Is "tests for pre-school child."

And in the end they hope to know
The way that humans think,
And how to make a genius grow,
And what drives men to drink.

—*Mrs. K. M. Bangham Bridges.*

Science News-Letter, May 21, 1927