

Anniversaries of Science

April 27, 1921—Science Service was incorporated.

April 27, 1521—Ferdinand Magellan, discoverer of the Straits of Magellan, was killed on one of the Philippine Islands, on his voyage around the world.

Then the Indians threw themselves upon him with iron-pointed bamboo spears and scimitars, and every weapon they had, and ran him through—our mirror, our light, our comforter, our true guide—until they killed him. While the Indians were closely pressing him he several times turned round towards us to see if we were all in safety, as if his obstinate resistance had no other object than to give time for the retreat of his men. We who fought with him to the last, and were covered with wounds, when we saw him fall, made for the boats, which were then on the point of pushing off.

—Pigafetta: *Primo Viaggio*.

April 30, 1877—Pasteur published the proof that bacteria are the cause of disease, and that although a virus may be the direct cause it does not exist independent of the bacterium.

Old observations and experiments had taught him that the blood of a sound animal, taken as it circulates in the veins and exposed to air which is free from germs, does not putrefy at the highest temperatures, nor give birth to any organism. It seemed to him probable, therefore, . . . that the blood of an animal infected with anthrax, if sown in a suitable medium, would stock it solely with anthrax bacilli which he could then keep pure for an indefinite time in successive cultures, as he had done with yeast and other ferments. . . Everything that it carried with it, to which we might be tempted to attribute a role in the production of anthrax—red corpuscles, white corpuscles, granules of all sorts—are either destroyed by the change of medium or are widely disseminated in this ocean and are lost there. Only the bacteridium has escaped the dilution because it has multiplied in each of the cultures. But a drop from the last culture kills a rabbit or guinea pig as surely as a drop of anthrax blood. It is, therefore, to the bacteridium that the virulence belongs.

This first step taken, we can ask ourselves how the bacteridium acts. Does it secrete a soluble poison which spreads about it in the liquid, as it undoubtedly spreads in the tissues of an attacked animal to produce the disease and kill it? No, for the liquid of the culture, filtered through a porous membrane and injected in any desired quantity into a rabbit, merely makes it sick. . . Strictly speaking, it is entirely possible that a virus should exist in the sense formerly attributed to this word, produced by the bacteridium and accompanying it in all its cultures. But this is the essential thing, that it is not produced independently of the organism, and that, consequently, whatever the mechanism of its action, the bacteridium is the sole cause of anthrax.

—Duclaux: *Pasteur: The History of a Mind*.

May 2, 1519—Death of Leonardo da Vinci.

At the end of the fifteenth and beginning of the sixteenth centuries Leonardo da Vinci (1452-1519) turned his attention in part from art to science, engineering, and inventions, making interesting studies in architecture, hydraulics, geology, etc. He is regarded as the first engineer of modern times, and has been called "the world's most universal genius."

—Sedgwick & Tyler: *Short History of Science*.

Science News-Letter, April 16, 1927

HYGIENE

More Alcoholic Deaths

Has the Volstead Enforcement Act defeated its own end? Hard, harsh-sounding figures that certainly sound so, have just been revealed by the research of statisticians of the Metropolitan Life Insurance Co.

These experts have made a comparative study of the death rate from alcoholism among their policyholders for the several years succeeding the enforcement of the Eighteenth Amendment and for an equal number of years before. Their results show that the increase of such deaths since 1920 has been very general throughout the country and is many times greater than the prevailing rate in Canada. Under alcoholism have been included all records of deaths known to be due to acute alcoholic poisoning from post-war bootleg liquor. All together they constituted in 1926 4.1 per hundred thousand deaths among the policyholders of the company or exactly the same percentage as prevailed back in 1911, the first year of the period studied. This was the highest death rate since 1917, and shows an increase of 24 per cent. over 1926, the statisticians say.

The condition is pretty much the same throughout the whole United States, but Maryland and New York appear to have the most vicious brands of bootleg booze in circulation, for the rate of the former, 10.1 deaths per hundred thousand, is the highest ever recorded for that State. New York was a runner-up with 6.3, surpassed only in 1913, 1914 and 1916. These figures, which are for a representative slice of the industrial population, are in close agreement with those for the general population up to 1925, the latest year on which statistics are available. They show, the statisticians say, that alcoholism is not restricted to any one economic class or to any limited area of the country, but tends to be even higher among the general population than among the wage-earning groups.

Though the deaths from straight alcoholism have been increasing, the ones from acute alcoholic poisoning have been progressively falling off, indicating that on the whole the bootlegger and home brewer are gradually perfecting their product so that it constitutes less of a menace to life and the stomach lining.

The alleged increase of drinking among young people has not yet succeeded in materially lowering the average age of those dead from alcoholism, at least men. The average for women has decreased in the last two years, but only slightly.

Science News-Letter, April 16, 1927

BIOLOGY

Vermicular Vocalizations

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

(Dr. Rudolph Ruedemann, of the New York State Museum, confirms by observations on the vocalizations of American earth-worms the report of a saengerfest of German worms sent in by a Freiburg scientist, Prof. Mangold.—Science News-Letter, February 19, 1927, p. 123.)

Can you hear the earthworms singing
When the wind is in the west,
And the birds of May are winging
To the regions where they nest?

When the earth is gay with flowers
And the trees are turning green,
Following the April showers
Lumbricus will sing, I ween.

Does the power of the season
Move his dorsal artery,
Some more potent force than reason,
Such as stirs in you and me?

At the charmed hour of twilight
When the air is not too cold,
Then the earthworm lifts the skylight
From his burrow in the mold.

As he moves he rasps his setae
On the edges of his mound.
He is singing to his sweetie;
Can you hear the joyous sound?

As the darkness settles o'er us
And the hour is growing late,
Listen to the tuneful chorus
Where the earthworm calls his mate.

Shall we envy him his rapture
Or be sorry for his plight?
We the other sex may capture;
He is a hermaphrodite.

—Philip H. Pope.

Science News-Letter, April 16, 1927

Tribes of pygmies almost unknown to civilized man inhabit the interior of Dutch New Guiana.

In the prehistoric Bronze Age it was the style for women to wear half a dozen or more bracelets at once.