

ANNIVERSARIES OF SCIENCE

October 10, 1878.—Pasteur proved that alcoholic fermentation is caused by yeast organisms.

Ah! So you are bound to ignore the yeast in this phenomenon, or at the most will concede to it only the role of an initiator! Very well! Learn that this yeast always borrows something from the sugar, and makes a part of its own tissues out of this food. Learn also that it is only on condition of keeping a little of the sugar for itself, that it consents to give you the rest in the form of alcohol. (Duclaux' resume of Pasteur's memoir.)—Duclaux: *Pasteur, the History of a Mind.*

October 10, 1846.—Satellite of Neptune, which planet had just been discovered, was found by William Lassell.

The outstanding inequality of the orbit of Uranus could be attributed to the attraction of a major planet lying in a certain region of the heavens. This brought about the discovery of the planet Neptune . . . What a tribute to the human brain that, without a sight of Uranus, and merely by employing some tables of dry figures, it could call up from the depths of space another and greater planet, till then unseen, to take his place in the sun's family! Within three weeks there was also found with Neptune a moon, so that it became possible to fix accurately his mass. As it proved, Neptune is the third most massive of all the planets. Abbot: *The Earth and the Stars.*

October 11, 1889.—Death of James Prescott Joule.

Joule was a Manchester brewer and amateur of science, a skilful and accurate experimenter who year after year turned out unimpeachable quantitative evidence of the equivalence between mechanical work and heat in all sorts of transformations. Henry Andrews Bumstead: *The Development of the Sciences.*

October 13, 1884.—International conference at Washington adopted meridian of Greenwich as the universal prime meridian for calculation of longitude. The resolution adopted was as follows:

That the Conference proposes to the Governments here represented the adoption of the meridian passing through the transit instrument at the Observatory of Greenwich as the initial meridian for longitude.

The following resolution was also adopted:

That the Conference proposes the adoption of a universal day for all purposes for which it may be found convenient, and which shall not interfere with the use of local or other standard time where desirable.

Time meridians, one for each de-

gree of longitude, were selected for Europe at this conference, but it was suggested that America have one standard mean time, six hours behind Greenwich. That arrangement would have given all America what is now Central Standard Time. The nations sending delegates to the Conference were: Austria-Hungary, Brazil, Chili, Colombia, Costa Rica, Denmark, France, Germany, Great Britain, Guatemala, Hawaii, Italy, Japan, Liberia, Mexico, Netherlands, Paraguay, Russia, San Domingo, Salvador, Spain, Sweden, Switzerland, Turkey, United States, Venezuela.—*Protocols of the International Prime Meridian Conference, 1884.*

(Readers are asked to send in important dates of science that should be noted in this department.)

Science News-Letter, October 9, 1926

EDUCATION—PSYCHOLOGY

Home-Made Toys Best

Home-made toys have qualities that are not found in the toy shop displays and children should be encouraged to make simple playthings for themselves.

This is the opinion of Dr. Lovisa C. Wagoner of Iowa State College, who asked a group of mothers to describe the best home-made toy that their children had and to tell whether the child or some one else made it.

Of the 95 toys described, about half were made by the child himself, she finds. Two-thirds of the children were under five years, but as amateur toymakers they exercised ingenuity and imagination in their use of boxes, string, paper, spools, crayons, and other commonplace things. Toys which they concocted range from a string of spools or a wagon made of a box on a string to more elaborate constructions such as a fiddle made from a long and short ruler, with the music to be furnished by the young fiddler's voice.

"These constructions indicate a marked capacity of the child to utilize the materials of his environment," says Dr. Wagoner. "Playthings which grow out of the child's everyday experiences, which are the result of his own effort, possess an intimacy which is valuable, not only because it stimulates inventiveness, but also because it offers opportunity for the satisfaction inherent in self-assertion and in the mastery of materials."

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Memory Rimes

In the days before writing was invented metrical forms were used to aid the memory. Hence arose the sagas and epics that formed the foundation of later literature. Even now with reference books in abundance on our shelves and memorandum books in our pockets it is sometimes desirable to resort to this prehistoric mnemonic device. For instance, medical students find it hard to memorize the twelve cranial nerves in their proper order, even after they have mastered their cumbrous cognomens. But the following couplet is readily remembered and may give a clue to the names and their sequence:

The Cranial Nerves

On old Olympus' towering tops,
[olfactory, optic, oculomotor, trochlear,
trifacial]

A Finn and German picked some hops.
[abducent, facial, auditory, glosso-pharyn-
geal, pneumogastric, spinal accessory,
hypoglossal.]

Most of us have learned the value of Pi to four decimals and that is far enough for ordinary calculations, but it is easy to carry thirty decimals in mind by memorizing this versified tribute to Archimedes, for the number of letters in the words gives the corresponding digits:

Value of Pi to Thirty Decimals

Now I, even I, would celebrate
3 1 4 1 5 9

In rhymes inapt, the great
2 6 5 3 5

Immortal Syracusan, rivaled nevermore
8 9 7 9

Who, in his wondrous lore,
3 2 3 8 4

Passed on before,
6 2 6

Left men his guidance how to circles
4 3 3 8 3 2 7

mensurate.
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We wish our readers would send to Science Service any such memory rimes as they have composed or found useful.

Science News-Letter, October 9, 1926

Electro-deposited chromium is
harder than steel.

Cake has 25 per cent more calories
than bread.

Battles of male black bass for favorite females during the spawning season are sometimes so fierce that they injure or kill one another.