Anniversaries of Science

December 8, 1903.—Unsuccessful attempt to fly the airplane designed and built by Samuel Pierpont Langley.

The data for the full-sized flying machine of Professor Langley tested October 7 and December 8, 1903, have not yet been published. From newspaper photographs it appears to be an amplification of the models which flew successfully in 1896, and this necessarily, would make it very frail. The failures, however, seem to have been caused by the launching gear and do not prove that this machine is useless. Like the failures of Maxim and of Ader, it does indicate that a better design must be sought for, and that the first requisites are that the machine shall be stable in the air, shall be quite under the control of its operator, and that he, paradoxical as it may appear, shall have acquired thorough experience in managing it before he attempts to fly with it. . . . .

It doubtless will require some time and a good deal of experimenting, not devoid of danger, to develop the machine to practical utility. Its first application will probably be military. We can conceive how useful it might be in surveying a field of battle, or in patrolling mountains and jungles over which ordinary means of conveyance are difficult. In reaching otherwise inaccessible places, such as cliffs, in conveying messages, perhaps in carrying life lines to wrecked vessels, the flying machine may prove preferable to existing methods, and it may even carry mails in special cases, but the useful loads carried will be very small. . . . The power required will always be great, say some thing like one horsepower to every hundred pounds of weight, and hence fuel can not be carried for long single journeys. The north pole and the interior of Sahara may preserve their secrets a while longer.

—O. Chanute: *Aerial Navigation,* paper read before the American Association for the Advancement of Science, December 30, 1903.

Science News-Letter, November 27, 1926

ARCHÆOLOGY

Enemies Slain in Effigy

The childish trait of "taking it out" on an inanimate object when one has a fit of temper seems to have been a serious business in ancient Egypt. An archæological expedition of the Berlin Museum has just returned from Egypt with 290 pieces of pottery, fragments of some 80 clay vessels, all written over with the names of foreign princes and peoples with whom the Egyptians of about 2000 B. C. were at war, together with a number of Egyptian names as well, presumably of rebellious communities. These names, it is believed, were inscribed on the vessels, which were then shattered with suitable ceremonies, in the belief that the foes would thereby be injured.

Science News-Letter, November 27, 1926

FOLKLORE

Blessed are the Wells

Large numbers of invalids and convalescents come every year to the noted medicinal springs at Buxton in Derbyshire, England, where the blessing of the waters was recently celebrated. This blessing of the waters is accompanied by the ceremony of well-dressing, an ancient practice common all over Derbyshire, which certainly goes back to the Roman period. The Romans were very skilled in finding healing waters, and it is quite possible that a tradition of their celebration of the festival fontinalia, the festival of the Springs, may have lingered on after they left Britain.

The custom of blessing the waters in spring is still kept up in the Mediterranean area and in the Balkans. It is performed regularly by the Greek Church over the waters of the Bosphorus, in Roumania at Bucharest, and it was an important part of South Russian spring ritual. It is possible, however, that in Britain it goes much further back than Roman times. Holy Wells are common in Britain and in the west and they are very frequent in Ireland. If they have any personal association it is usually with some saint, but there is no doubt that this saint is a pagan deity or spirit which has been Christianized.

Offerings are still made at these wells to obtain the fulfilment of a wish, and it is common to find pins and other small objects lying at the bottom of the well or spring, while rags and bits of ribbon or lace are to be seen fastened to bushes growing around or near. The well-dressing practiced annually at Buxton and in other parts of Derbyshire is more elaborate now that it is performed under the patronage of the Church and the municipal authorities. Elaborate pictures are constructed in a colored mosaic of mosses, lichens, and flower petals, representing some Biblical subject such as Christ and the woman of Samaria at the well, with the legend "Give me to drink," which was one of the subjects this year.

But it is clear that the whole practice is only an elaboration of the earlier primitive offering to the spirit of the waters and it is very significant that the construction of the pictures is in the hands of a few exponents of hereditary skill in design and execution who were rapidly dying out until the art was revived. Were they the descendants of a long-forgotten primitive priesthood who once ministered to the spirits of the waters?

Science News-Letter, November 27, 1926

Memory Rime

Again the Value of Pi

Prof. Otto Dunkel, of Washington University, St. Louis, has supplied us with a complete French rime for remembering the value of Pi to thirty decimal places, the number of letters in each word representing the digit in the proper order. It is from Elementar Lehrbuch der Algebraischen Analysis und der Infinitesimalrechnung, by E. Cesaro, translated into German by G. Kowaleski, Leipzig, Teübner, 1904. The first line was published in the SCIENCE NEWS-LETTER, X, p. 111, (Nov. 13, 1926):

Que j'aime à faire apprendre un nombre
3 .1 4 1 5 9 2 6
utile aux sages!
5 3 5
Immortel Archimède, artiste ingénieur,
8 9 7 9
Qui de ton jugement peut priser la valeur?
3 2 3 8 4 6 2 6
Pour moi ton problème eut de pareils
4 3 3 8 3 2 7
avantages.
9

Science News-Letter, November 27, 1926

BIOLOGY—AGRICULTURE

Finds New Walnut

A native American black walnut, whose nuts split like those of the so-called English walnut, allowing the meat to come out in two even halves, is the promising find of Prof. J. Russell Smith of the Columbia University School of Business, who reports that he has several grafted specimens growing on his farm near Round Hill, Va. The hard, woody partitions in the shell, that make so much work for the nutpick in ordinary black walnuts, are lacking in the new variety, which probably arose as a chance mutant, or "sport," in the natural timber.

It is pointed out that native walnut trees of this kind offer considerable promise for the development of an American nut growing industry. "English" walnuts, which in point of fact came to this country from Spain and southern France, are too tender to grow profitably north of California, Florida and other southern states, whereas the native black walnut thrives in the woods clear up to the Canadian border and beyond.

The Northern Nut Growers Association, of which Prof. Smith is a member, is offering a prize of $50 for the discovery of the best black walnut trees in America.

Science News-Letter, November 27, 1926

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