

ANTHROPOLOGY

Thanksgiving Is World-Wide

Throughout history, nearly all of mankind has offered thanks to its deities at harvest time. The Indians were not surprised at the first Pilgrim Thanksgiving.

By HORACE LOFTIN

► AMERICANS LIKE to think of Thanksgiving as an occasion particular to our young nation, a unique heritage handed down from the grateful Pilgrim Fathers. But those unsentimental people, the scientists, have shown that Thanksgiving is far from being our own private festival.

Anthropologists who study the customs of man across the globe and archaeologists who look into man's dim past tell us that harvest festivals are a universal and persistent part of nearly every known culture.

The Pilgrims themselves inherited the tradition of thanksgiving from old English, Anglo-Saxon and Celtic customs. The

practice of harvest ceremonies all through Europe can be traced back to the most remote periods of pre-Christian times of which we have any record.

Sir James G. Frazer's famous book, "The Golden Bough," tells of an old Lithuanian harvest feast that is typical of the ancient European thanksgiving tradition. At the time of autumn sowing, after the summer's harvest had been gathered, the Lithuanian peasant would gather nine handfuls of each kind of grain he grew, and mix them all together. Part of the mixture was used to make a loaf of bread for each member of the family, and the rest was made into beer.

When the beer had fermented and was ready for drinking, the farmer knelt before the barrel and drew out a jugful which he poured over the barrel's spout. Then he chanted: "O fruitful earth, make rye and barley, and all grains to flourish."

After this ritual, the farmer went into the parlor where the family was waiting. A rooster and a hen were placed on the parlor floor which the farmer then killed, meanwhile offering prayers of thanks. Then the farmer's wife boiled the chickens in a new, unused pot.

When the chickens were cooked, the family gathered around the table. The beer and three mugs used only on this solemn occasion were brought out, along with the loaves of bread and the chickens. The father made a prayer of thanks and drank down the three mugs of beer. The mugs were passed to the next person, and the process was repeated around the table until everyone had emptied the mugs nine times.

No Left-Overs Allowed

All the food and drink had to be finished at the meal, a thing which many modern American housewives wish might happen as they try to think of new ways to use the left-over turkey.

But even the Indians were not at all surprised at the Pilgrims' Thanksgiving feast. Religious ceremonials, dances, and feasts of thanks were a part of nearly every Indian culture. All over the American continent where tribes depended on corn in order to live, the Indians offered thanks when the crop was ripe or harvested.

The Creek Indians that inhabited the region now called the Deep South gave thanks to their gods when the corn was ripe, usually in late July or August. According to "The Golden Bough," the Creeks burned all of their old clothing, household goods and furniture at the be-



INDIAN THANKSGIVING—
American Indians celebrated thanksgiving at harvest time long before the Pilgrims came to this continent. The Pueblo dancer shown here has exchanged his drab tribal costume for this colorful one from the Southern Plains Indians.

ginning of the thanksgiving period. Fires in the village were extinguished. The area in and around the altar was scoured to remove any source of "pollution" to the new corn to be offered the gods.

Then all the able-bodied men came into the holy square around the altar where they fasted two nights and a day to purify themselves for receiving the new corn. Guards were posted to keep all women from the sacred spot. During this time of fasting, women, children, the sick and the old were allowed to eat after noon but never before.

When the fasting ended, food from the previous year's harvest was brought to the sacred square, where there was a general feast. All traces of the food had to be removed before noon, however.

As the sun set, the people hid in their huts, destroyed every trace of fire, and kept utter silence. Then the priest made a new fire, and a basket of the new corn was brought to him which he blessed and of-

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ferred to the gods. The new fire was placed in the square from which the women gathered brands to light their extinguished hearths.

Afterwards, a period of feasting and celebration reigned for several days, with dancing, games and mock battles. The Creek thanksgiving lasted eight days in all.

The world over, from the most primitive tribes to the greatest and most modern of people, mankind has always found it good to rest a while, count its many blessings, and offer thanks for them. It seems that this thing we call Thanksgiving is in the hearts of all men.

Science News Letter, November 22, 1952

AERONAUTICS

Self-Starters for Jets

► THE PROBLEM of a self-starter for turbo-jet engines, the power plant in jet-propelled airplanes, is approaching solution by developments both in America and England.

In both countries the solution seems to be a tiny rocket-type engine within the plane electrically started by push-button to provide the power to start the main engine into operation.

The self-starters used with piston engines in conventional planes cannot be used for jet engines because of the large amount of power needed. The use of jet-propulsion in aircraft has been held back by the necessity of outside power at airports to put their engines into operation.

With satisfactory self-starters built into them, they will be able to take off from emergency fields in combat and other areas where outside electric power is not available.

Several types of self-starters for jet engines have been developed during the past few years, but few were successful enough to be generally adopted. The newest types use a small jet engine within the plane to start the main power plant. The small jet engine uses a liquid or a solid fuel and operates somewhat like a rocket engine.

The new British type of self-starters is described as a miniature gas-turbine with a combustion chamber, a turbine and a shaft. For fuel it uses a little-known liquid known

TECHNOLOGY

Improve Riveted Joints By New Design Formula

► RIVETED JOINTS can be 85% as strong as the unbroken metal, according to a new formula painstakingly worked out by a University of Illinois graduate student.

After conducting 130 tests and studying more than 2,000 others, Frederick W. Schutz, Jr., worked out a means of designing rivet patterns to achieve an 80% to 85% efficiency. Efficiencies now run around 75% for patterns from present formulas.

Science News Letter, November 22, 1952

as propyl-nitrate. When ignited, it produces power to drive the small turbine. This is geared to produce up to 10,000 revolutions per minute on the shaft, sufficient to start the main engine.

The most recently announced American self-starter is a development of Bendix Aviation Corporation, Teterboro, N. J. It is a typewriter-sized 75-pound starter, which burns a mixture of high-pressure air and jet fuel. It is already in production and is being installed on Sapphire jet engines, power plant of the new Air Force F-84-F fighter-bomber.

A self-starter revealed recently by General Electric uses a solid fuel to operate the small jet-engine type of starter. The fast-burning solid, in a replaceable cartridge, is ignited electrically.

British officials claim the liquid propyl-nitrate fuel system is better than the solid fuel system, because the latter is limited by the number of cartridges available while the liquid propellant is limited only by the size of its carrying tank.

Science News Letter, November 22, 1952

VETERINARY MEDICINE

Cows Can Fatally Over-Eat Green Corn

► WHAT CANDY is to kids, new or soft corn is to cows. And like kids, cows will over-eat their favorite foods if given a chance.

For this reason, the American Veterinary Medical Association has put out a warning to farmers, advising them to keep their cattle out of the cornfields until the grain has had a chance to dry out.

Wait until a light snow has fallen before turning cattle into the fields, the veterinarians suggest. If they must be allowed to forage early, let the animals fill up on hay a few days beforehand.

If stock does manage to become gorged on soft corn, it should be kept off water for 48 hours to prevent fatal bloating, and a veterinarian should be called.

Science News Letter, November 22, 1952

Philosophical Library Publications

Development of the GUIDED MISSILE

by KENNETH W. GATLAND

This book presents factually all the main information now available on the development of guided weapons in Britain, the United States, Germany, the U.S.S.R. and elsewhere, and outlines their present and future possibilities.

A unique feature is the appendix showing the characteristics of all the more important powered missiles known to have been designed or constructed—a total of 90. Air Chief Marshal Sir Alec Coryton, former Chief Executive (Guided Weapons), Ministry of Supply, has contributed a foreword to this important book, and it is very fully illustrated.

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Prepared by the Ministry of Supply and the Central Office of Information

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