

ETHNOLOGY

Always Christmas

In Eskimo Land Every Day Is a Holiday, For Each Family Runs Its Own Toyshop and Children Are Loved

By EMILY C. DAVIS

IT'S Christmas all the year for lucky boys and girls way up north. For the Eskimos who inhabit Santa Claus' homeland are the greatest toy-makers on earth.

Eskimo fathers and mothers — especially fathers — produce toy boats, dolls, footballs, cook stoves, knives. They are world's champions at the business of making things to amuse their children.

Why?

"It's mainly because," says Henry B. Collins, Jr., U. S. National Museum ethnologist, "Eskimos love their children so much."

Mr. Collins has made repeated expeditions to Alaska for the National Museum. He has dug up so many ancient Eskimo toys that he is convinced that Eskimos have always been like that—devoted to their small sons and daughters and expressing their interest by lavishing handmade playthings on them.

Eskimos don't cram their toy-making into any particular season. There's no burst of Christmas giving in Santa Claus' own land. Only the Christianized Eskimos keep Christmas. Young Eskimos hear something about Santa at school but not at home.

They don't think of the reindeer as a proper steed for bringing toy cargoes. Now that reindeer have been introduced into Alaska in recent years, some of the Eskimos do carve little reindeer. But

Mr. Collins says tourists are the ones who like them. They aren't made for the children, who prefer a carved dog, polar bear, bird, fox, seal, whale, or walrus.

There are no gift-giving holidays at all in Eskimo land, Mr. Collins explains. No shower of Happy-birthday-to-you presents. No Buy-the-child-a-new-toy Week. Their ceremonials occasionally call for presentations, but they are solemn and quite different, and not for children.

Eskimos make toys in the long winter evenings we hear about, and also at any other time when they think of it. They make everything that they can think of, that children would like.

Actually, young Eskimos like the same familiar toys that children the world over seem to love. The same toys have been amusing children ever since the Stone Age. The same stiff-legged animals carved in wood or ivory. The same staring dolls, and miniature dishes and tools that small fingers can hold.

But here's a surprise. Little Eskimo girls have a tomboy liking for balls. And no soft, light balls, either. They play football with a rounded ball of sealskin stuffed reindeer hair. There are several Eskimo footballs in the National Museum at Washington. Mr. Collins lent one to a Washington schoolgirl, to see whether Eskimo football is easily mastered by a young paleface.

The young lady, named Ginger, made

a determined attack on Eskimo technique and developed fair skill in one lesson. The trick is to throw the ball, kick it with your shin or top of the foot, catch it, and repeat as rapidly as possible without fumbling.

Eskimo girls can play this one-girl system for hours without tiring. When they get three other "fellows" and two balls, they play a square formation, passing the balls across and scoring.

The motley cover of an Eskimo football is made by sewing bleached and unbleached sealskin segments into a pleasing pattern. Tufts of baby seal fur are sometimes added for trimming. The hard stuffed ball, slightly weighted, is heavier than a regulation football.

Eskimo boys like football, too, Mr. Collins has observed, though they play less than the girls do. Balls, he believes, are the favorite plaything of Eskimoland.

When doting Eskimo parents hand a brand-new doll and a toy stove to a young daughter, or a shiny little harpoon to the son and heir, they are pouring out affection, but there's possibly an ulterior motive, too, Mr. Collins thinks. There usually is, when parents encourage the young to play with model things of everyday life. There's a lurking hope that the youngsters will gain familiarity with useful duties, for the day when they are grown ups.

DOLLS

Little Eskimo girls love their dolls. Usually boy dolls have up-turned mouths and girl dolls have mouths turned down. Just an Eskimo custom.





"COME SEVEN!"

Eskimo dice are shaped like ducks and men. If a piece lands right side up facing you, then you win. Eskimo name for this kind of craps is Tingmiujang and probably Santa Claus is glad he doesn't get letters from Eskimo children, in a language like that.

"Eskimos spend hours," says Mr. Collins, "in order to fashion such toys well. They seem to feel a responsibility to make miniature objects right. And they always have. Toys dug up from the trash heaps of prehistoric Eskimo villages, such as those I have excavated on St. Lawrence Island, are made with the same deliberate care.

"We find dolls, for instance, wearing amulets—just like the amulets that Eskimo mothers hang on their own babies. Sometimes the amulet is attached to a little harness on the child's body. It's something like the asafetida bag worn by children in our country to ward off diseases. The Eskimo mother feels happier if her child is wearing an amulet to ward off evils of sickness and trouble. And the Eskimo child naturally wants her doll babies protected."

The Eskimo girl with a large doll family to care for is no different from the small girl in a city. She accepts dolls of all sizes, from an inch to a foot tall, as part of the family, and there is sometimes a mama doll to take over the duties when the child mother is playing football or jumping rope.

A non-Eskimo might wonder why some dolls in Santa Claus land have smiling upturned mouths, whereas other dolls' mouths droop so at the corners. It's just a doll trait up there. Generally, it is the girl doll who has a turn-down mouth, the boy who smiles.

Doll furniture in Santa Claus' own

land is decidedly different from anything in our shops. No tinkling pianos, or painted bedroom sets, naturally. The Eskimo girl in a native home has simpler ideas. The one thing she must have is a cookstove.

It sounds like meager housekeeping. But an Eskimo stove is a combination gadget that puts our inventions to shame. When an Eskimo girl gets a tiny stove made out of a piece of soapstone or clay, she has something to play with in a dozen ways.

"The Eskimo stove," Mr. Collins explains, "is really a lamp. Eskimos used stone or pottery lamps to light their homes, to cook their meals, to melt snow and ice for drinking water, to dry clothes, to keep them warm.

"The woman of the house always had her lamp, which showed that she was the mistress of the home. So, when an Eskimo girl got a toy lamp for a gift, she felt important.

"To cook with an Eskimo lamp, the housewife filled it with seal fat oil and fitted a moss fiber wick in it and lighted the 'stove.' The pot containing the food to be cooked was hung over the lamp."

To go with a cookstove, an Eskimo girl liked to have a knife—a particular kind of knife. Her mother had a big one, used in cutting meat and cutting out clothes, and the design which was typically Eskimo was very ingenious.

Mr. Collins describes the Eskimo household knife as shaped like a modern butcher's chopping knife, with a blade of stone—it was stone in the old days, before Eskimos got iron from white men. The blade fitted into a long slot which ran along the base of the handle.

An archaeologist of the National Museum once found one of these knives made for a little Eskimo girl long ago, and was surprised to see a scooped out hole in the handle. It was just the right size for a child's index finger to fit into the hole comfortably, and the whole knife was small. On the side of the handle were several depressions for the fingers.

A modern Eskimo who happened to be standing nearby, when the find was made, said it must be a "little girl's knife" made with the special finger grips carved so that it would exactly fit the little hand.

"We have in the Museum several toy soldiers from prehistoric villages on St. Lawrence Island," says Mr. Collins. "At first glance, one of these fighters looks like the ladies in flaring skirts that you see in pictures of ancient Crete. But

actually, the tiny ivory image is a man wearing Chukchi armor.

"Chukchi armor, made out of walrus hide rings, was an invention of a Siberian tribe of that name."

Fighters wore a series of these rings like hoops to form a shirt which flared around their knees as the rings grew wider. When taken off, the hoopskirt armor collapsed into a neat telescope.

To complete his fighting togs, the warrior had a walrus-hide shield like a three-sided screen, which could be folded collar-fashion high around his head and shoulders.

The toy soldiers which amused boys in Alaska centuries ago are very small, even tinier than the usual lead soldier.

The Eskimo toy soldier is of special interest to ethnologists because it shows a link with Siberia, where this style of defensive armor came from.

Toys that once served only to amuse children often attain the dignity of being written up in scientific documents, because of the light they shed on ancient customs and migrations.

Eskimo craps, for example, serve as a clew to the roving of ancient Eskimo groups across far northern America.

The Eskimo variety of a dice game is played with little ivory birds, duck-



GIRL'S GAME

This young American learns the correct technique of kicking Eskimo football—you kick it with the top of your foot.

shape, and sometimes also with tiny men and women. If a figure lands right side up facing you in the game, it's yours.

The interesting thing about that, so far as Eskimo history goes, is that prehistoric Eskimos in northern Canada used to play this dice game, and then some of these Eskimos moved back west to Alaska, carrying this idea of amusement with them. Finding the little ivory ducks in old, buried settlements in Canada, but only in more recent settlements in Alaska, has provided one clue to an old, unrecorded migration.

Eskimo craps is a simple game. But they have a name for it. Tingmiujang. With a language like that, maybe Santa is lucky, too, that he doesn't have to read the letters an Eskimo child would write.

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DENTISTRY

Pyorrhea Greatest Problem Facing Dentists Today

PYORRHEA and other diseases of the gums constitute the greatest problem facing dentists, Dr. Olin Kirkland, of Montgomery, Ala., told dentists at the Greater New York Dental Meeting.

"There is a way to treat pyorrhea successfully," Dr. Kirkland said, "but the operator must make an early diagnosis and proceed to eradicate the infective foci."

Diseases of the gums can be controlled with much less effort than caries or tooth decay and with equal assurance of success, Dr. Kirkland stated, but unfortunately the public does not know this.

More specialists in diseases of the gums are needed, Dr. Kirkland said.

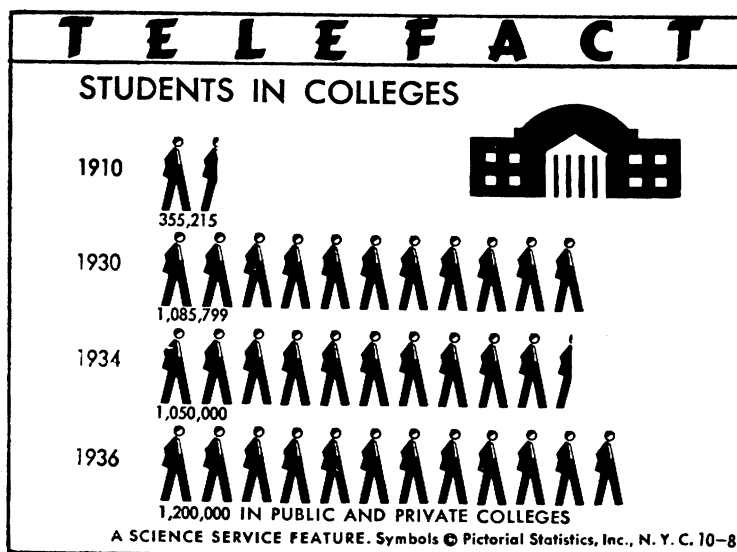
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The New York Zoo has a tigon, which is the hybrid offspring of a Siberian tiger and an African lion.

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PHYSICS

Introduces New Simplicity Into Atom Mathematics

All the Many Atomic Particles Are Found to Belong To Two Classes According to the Type of Their Spin

THE spin of atomic particles, the same kind of whirling which makes a top stand up on a table-top when properly spun, is now enabling scientists to find a new simplicity in nature.

All the many atomic particles—the electrons, positrons, neutrons, neutrinos, deuterons, mesotrons and all the rest—are now known to fall into one of two simple categories. Either their nuclear spin falls into half integral or into whole integral differences.

In a reply to a query of Science Service, Prof. J. Frenkel, theoretical physicist at the Industrial Institute in Leningrad, points out that all the atomic particles conform to either Fermi-Dirac or Einstein-Bose statistics, special advanced kinds of mathematics developed to interpret their properties.

Electrons, positrons, protons, neutrons and neutrinos conform to Fermi-Dirac statistics, Prof. Frenkel says, and he suggests that they be called "odd" particles.

The second kind of particles have whole integral spins, conform to the Einstein-Bose statistics and include photons, deuterons and mesotrons. These particles would be known as "even" particles, suggests Prof. Frenkel.

In treating the particles by mathe-

matics it turns out that Fermi-Dirac class particles can combine their half integrals of spin and thus turn over into the second kind of Einstein-Bose particles. Thus where two, four, six or any even number of them combine the result is that the Fermi-Dirac particles show properties closely like the Einstein-Bose particles.

Where three, five, seven or any odd number of Fermi-Dirac particles combine they keep their original properties. Einstein-Bose type particles cannot, of course, ever combine into the Fermi-Dirac type because of their whole integral spin values.

Prof. Frenkel is the well-known physicist who also named excitons and phonons as new concepts in mathematical physics. Exciton is a term used to designate a state of excitation moving from one atom to another in a material body, as where light would be absorbed in passing through a material like glass.

The phonon is a fictitious particle bearing the same relation to a sound wave as a photon does to a light wave. The latter is defined as a packet or bundle, of radiant energy whose magnitude is equivalent to Planck's constant "h" times the frequency of the wave