

is the shape of the chest. This region in a baby is approximately cylindrical; only as growth proceeds does the human chest become wider than it is deep. The cylindrical shape is characteristic of the tree-climbing primates, Dr. Davenport said.

Another ancestral trait we show when we are very young is the rapid growth of the thigh region as compared with the lower leg. This predominance of the thigh is again a characteristic of tree-climbing animals. Later, at the age of eleven or twelve, the lower leg catches up and we become real ground-walkers.

Again, the full development of the foot as a ground-walking organ is realized only as we approach adolescence, when the simian-like low instep gives way to the truly human high foot arch. At the same time, the relative length of the foot decreases; quite long feet are common to children and apes. But while the foot is shortening the heel bone assumes relatively greater length; a short heel is another thing which young children share with simians.

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## PHYSIOLOGY

## Magnet Pulls Corpuscles Out of Circulation For Study

**P**PULLING blood cells out of the veins with a magnet is the novel method devised by scientists of the Rockefeller Institute who wanted to study a particular group of cells. The two ingenious scientists, Drs. Peyton Rous and J. W. Beard, described their method before the National Academy of Sciences.

The cells of this case are very active scavenger cells that quickly and thoroughly purge the blood of foreign matter by gobbling it up. These cells, known to scientists as Kupffer or reticulo-endothelial cells, are found in the liver, spleen, and bone marrow as well as the blood. They have been credited with a host of important functions, such as making the coloring matter of bile and making the germ-resisting antibodies that help us to ward off attacks of disease.

Exact knowledge has been lacking, however, largely because no one was

ever able to get the living cells out of the body for study. Now the Rockefeller investigators have done just that. Iron injected into the blood, in the form of highly magnetic iron oxide, is quickly gobbled up by these scavenger cells. This makes them highly attractive to a magnet. The iron-containing cells are loosened from their principal location in the liver by means of massage and a stream of fluid. They are then separated from the host of other elements suspended in the fluid and pulled out by the electro-magnet, just like so many iron filings.

The magnetically held cells are then washed and carefully released into a culture medium on which they will live and grow and where they can be studied directly. Drs. Rous and Beard are now conducting experiments to determine the functions of these cells.

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## ETHNOLOGY

## Drinking Map of World Traced By Anthropologist

**F**ERMENTED drinks are widely distributed among the native cultures of world peoples, yet they are not universally distributed. There are extensive natural "dry areas" on the culture map of the world, Dr. John M. Cooper of the Catholic University of America stated before the Catholic Anthropological Conference.

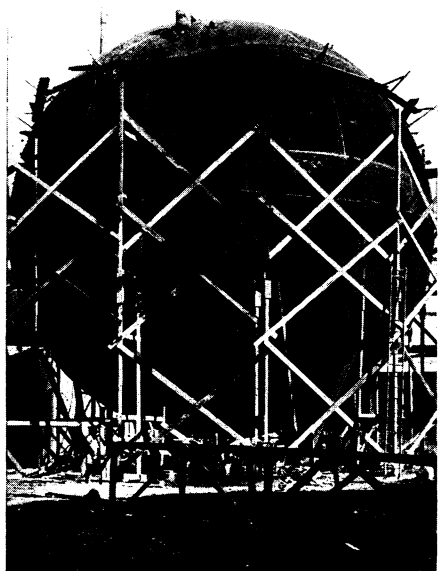
In general, the primitive non-agricultural peoples did not have fermented beverages until they learned their use from white men or other races of more elaborate civilization than their own. The great "dry" areas of the map include practically all of North America above the present Mexican border and the great tundra and wilderness area of northern Eurasia. To the south, Patagonia and Fuegia in South America are natural "dry" areas, as is also that most primitive of continents, Australia, together with most of Polynesia.

The herdsmen-peoples of interior

Asia have a fermented drink made from milk of mares or camels, called kumis. Elsewhere the agricultural peoples have native drinks based on their own products: grape wine and grain beer in the Mediterranean area, beer and honey mead in northern Europe, palm wine, beer and mead in Africa, rice and palm wines in eastern Asia, and maize beer or chicha in Mexico and South America. In all these areas there were small groups of primitive nomads who were still teetotalers although surrounded with drinking peoples.

Styles in drinking varied according to locality and race, Dr. Cooper pointed out. South of the Alps, steady but moderate drinking was and is the mode; in northern Europe the drinking bout ruled. Our own culture, deriving from northern Europe to a large extent, still preserves in "whoopie parties" the ancient drinking bout of our half-barbarian ancestors.

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### CONCENTRATED

More gas in the same amount of tank, is what the builders of this steel sphere 45 feet in diameter at Shrewsbury, Mo., really accomplished. This shape makes possible greater volume and higher pressures without excessive strain. (SNL, Sept. 13, '30, p. 175) The capacity is 162,000 cubic feet at 50 pounds per square inch. After 1,256 linear feet of seam were electrically welded the tank stood a soap suds test at 70 pounds air pressure.