ETHNOLOGY

Gold Not the Only Money

Financial Systems Can be Operated Without It; Knives, Seashells, Huge Stone Disks, All Were Used

By DR. FRANK THONE

GOLD may be enthroned or banished by court decision, parliamentary action, dictatorial fiat. It may be made the only basis for a nation's money, or the currency system may have no more gold in it than a high-flying paper kite. Men may get into vehement argument or even deadly feud over the status of the magic yellow stuff. But of one thing we may be sure: whatever becomes of gold, we shall still have money.

Some kind of money. And we shall get used to it, and buy and sell with it, no matter what it may be made of. And the next time a monetary revolution comes along we will undoubtedly get just as excited as we are now, and call each other names, according to the financial faith that is in us.

For money is one of the most nearly universal of all human institutions. It was in use at the dawn of history, and without much doubt had been invented in prehistoric times. There is hardly a people, however primitive, that does not have its accepted medium of exchange —its own kind of money.

Wonderfully diverse are the moneys of the world, and interesting the stories of their evolution. Would you ever suppose, for example, that the familiar brass Chinese "cash"—those very cheap coins with a square hole in the middle —started out in life some thousands of years ago as iron knives? Or that the Chinese also had, at one period in their history, a "shirt money?" Or that the biggest "coins"—enormous cartwheels of stone—are to be found on one of the smallest of inhabited islands?

These are only a few examples of the bewildering array of monetary varieties—species of specie—that have been turned up in a recent study by ethnologists at the Smithsonian Institution.

What shall we use for money? Well, razor blades, woodpecker scalps, porcupine quills, shells, beads, salt, tobacco, eagle feathers, fish-hooks, blankets, measures of corn—the list is almost endless. All these things have been used in America at one time or another for money. Each item had a value fixed and recognized among the people that used it, and that is what gave it its status as money rather than as simple merchandise.

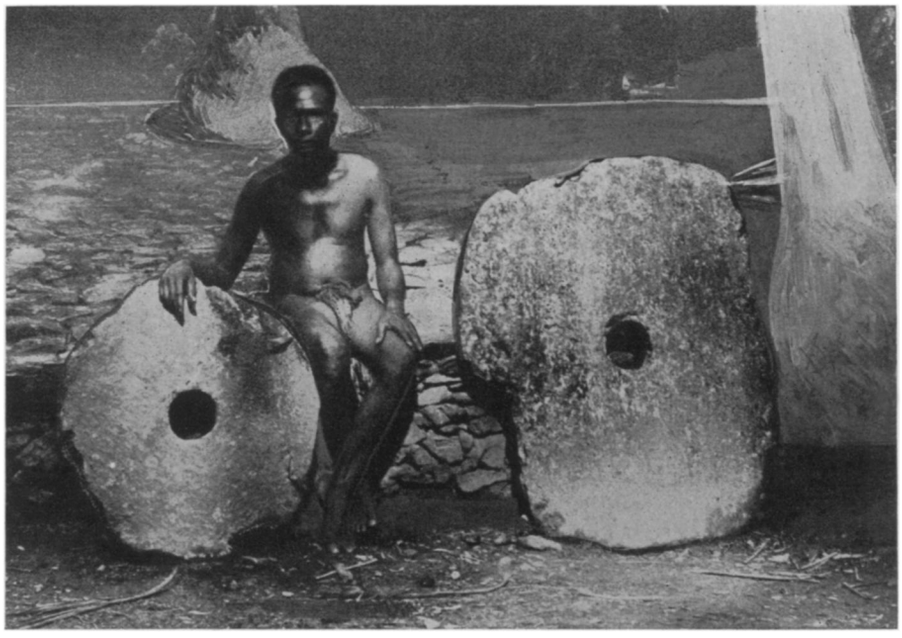
Most of the moneys used by the more nearly primitive peoples, like our North American Indians, are still recognizable as directly useable articles. You could trade with your fish-hooks or go fishing with them. You could buy things with your tobacco or smoke it. You could ride your ponies or hand over several of them for a squaw. Although the monetary objects used by any given tribe had a stable trade value, they still had an intrinsic or utilitarian value. That is the most elementary kind of money—a commodity useful in itself, to which a trade ratio, more or less fixed, has been attached.

Our Indians never got away from this naive currency system. They never developed a token coinage, or any kind of circulating medium that was the symbol of value rather than the recognized value itself. The nearest they came to this was the use of objects of ceremonial rather than utilitarian value.

Wampum, for example, was "money" only so long as it passed from hand to hand in simple strings. The standard trade-unit of wampum was a bunch of thirty strings. These were often knotted into sub-units, like links of sausage, so that a bunch of wampum could be cut apart, for "change."

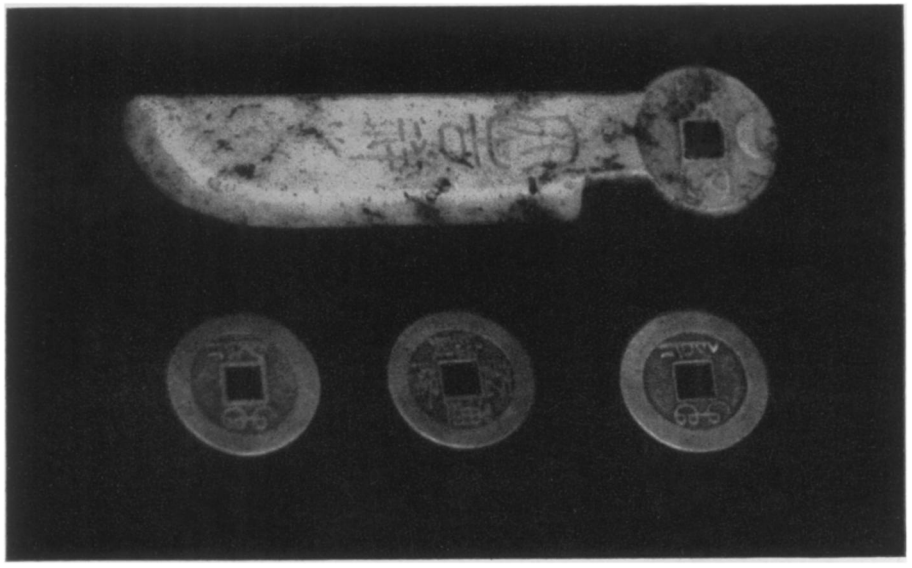
But once these little shell beads were unstrung from their trade-bundles and restrung as a belt, or some other ornament or article of clothing, they assumed a ceremonial value so far above that of ordinary wampum that it would have been a profanation to return them to the channels of mere business. It would have been like melting down the gold and silver altar vessels to turn them into coins.

Another case of much the same kind was the high value set on eagle feathers by very many North American tribes. Eagle feathers were money, not because of any intrinsic usefulness, but because they had the supernatural or magic virtues of making their possessors fierce and



STONE "COINS" BIG AS MILLSTONES

Bank robbers on the Island of Yap would require a derrick and a ten-ton truck; these huge stone disks, pierced like millstones, are "money."



KNIVES WERE MONEY IN OLD CATHAY

Two end-products of the evolution of Chinese "knife money." The original iron blades were replaced by bronze, which by one line of descent produced the costly ancient jade knife coin, and by another, eliminating the blade altogether, produced the cheap modern brass "cash."

fearless in battle, swift and skilled in the hunt. So precious were they that in the Southwest each tribe jealously guarded its own special area where eagles were known to nest, just as modern nations might be ready to fight for the possession of gold- or silver-mining areas.

Widespread among Indian tribes was the use of the "medicine bundle"—a collection of miscellaneous objects meaningless to the white man's uninitiated eyes, but of potent magic value to the savages. Among most tribes a man's medicine bundle was something much too precious to part with, but some of the Plains tribes used them for large-denomination currency—a pony was the "ten-spot," perhaps, but a medicine bundle was a "century" or even a "grand."

Similarly, the tribes of the Northwest coast prized huge, highly ornamented shield-shaped disks of thin hammered copper. These had great ceremonial and prestige value, and figured as money only in major financial transactions.

Copper Blades

There is one possible example of token or symbolic money in Indian use, and significantly enough, it was in use among the most highly cultured and furthest advanced of Indian tribes. In the southern part of Mexico, and particularly in the great cultural center of Mitla, there have been found great numbers of copper objects shaped more or less like axe-heads. They are well and skillfully wrought, but too thin for any utilitarian purpose. It is thought possible (though not at all established as certain) that these copper blades represent the sturdier and actually useable axe-heads of both stone and copper that did pass current as money among many Indian tribes in both North and South America.

A much more complete and definite evolution of a symbol-coinage is that of the ancient Chinese "razor money" or "knife money" into the modern square-holed brass "cash," now so cheap and debased in Chinese cities that it takes a hatful of them to buy a square meal.

Real Knives

Originally the "knife money" consisted of real knives or razors of sharp-edged iron. The blade had a characteristic shape, and there was a disk-shaped expansion at its lower end, pierced to take a carrying-string. At this earliest stage, the knife was both a unit of exchange and an article of practical use, just as schoolboy pocket-knives still are.

Then, because the edges of this knife money were too dangerous when they were sharp, the blades were turned out dull, though still of iron. The next step was to substitute the less utilitarian but also less rustable bronze or brass for the iron. The knife was hardly a knife any longer: it was a real coin, valuable but not intrinsically useful.

Other materials were substituted for the archaic iron—even the precious jade. The blade became smaller and smaller, finally disappeared altogether. But the disk-shaped handle remained, its hole now standardized in a square shape. The knife coin had become a "cash!"

And to complete the ironic cycle, modern Chinese now string these "cash" together into the shape of a conventional cross-hilted sword, said to be potent in keeping demons away.

Shirts To Spend

Another Chinese instance was the development of a shirt into a token, good for one shirt. Perhaps the origin of "no tickee no shirtee"? And the luckless Chinese who got caught short in the market and "lost his shirt" suffered a literal as well as a symbolic catastrophe!

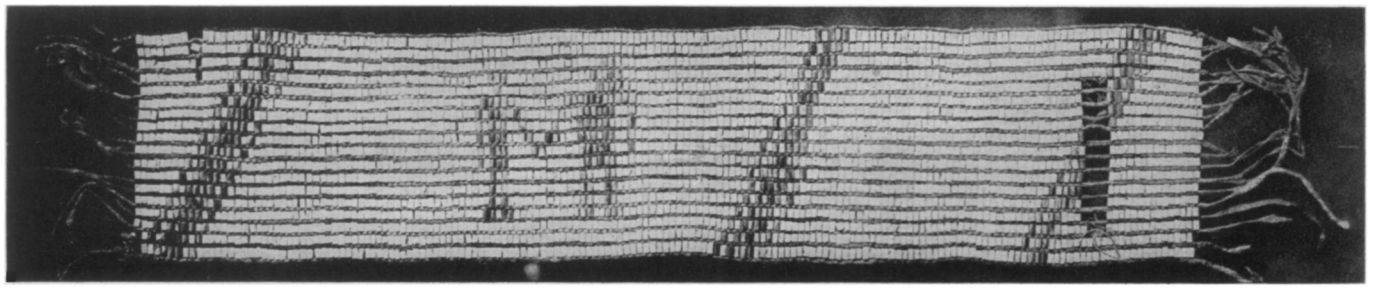
China was not the only place where knives were money. These standard implements have been currency all over the world. It is perhaps regrettable, from the professional jokesmith's point of view, that razors were not money in Africa, but they weren't. However, knives were so standard as money there that a symbol or token knife currency was developed: the "knife" consisted of a long, wire-like "tang" with a very short, flat, almost disk-like blade at the top. These, tied together in bundles, constituted the African bankroll. With three or four such bundles a young African could persuade the father of daughters to provide him with a wife.

Perhaps the most widely used, yet most variable, of all primitive currencies was shell money. Often whole shells were used, a notable case being the circulation throughout the South Seas of the beautiful, smooth, softly-colored cowrie shells. Elsewhere disks were cut from shells for large ornaments, or small beads carved out and pierced for stringing.

Wampum

Wampum consisted of such small disk-shaped or short-cylindrical beads, cut from one particular kind of clamshell, now known scientifically as *Venus mercenaria.* The *Venus* part of the name presumably refers to the clam's being born of the sea, as the lovely pagan goddess was. The *mercenaria* part looks as though it might be a reference to the use of the shell for making bead money.

At any rate, the beads cut from the white part of the shell were more numerous than those cut from its purple or black border, so (*Turn to Page* 125)



MONEY NO LONGER

One of the most famous pieces of wampum-work in the world: part of the great "Treaty Belt" made by the Indians to commemorate their agreement with William Penn. Wampum so used assumed so high a symbolic value that it was no longer considered to be money.

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that they were not rated as highly, either by the Indians or by the settlers of Massachusetts Bay Colony, who adopted Indian money. There was even monetary legislation in early New England, fixing the value of wampum and providing penalties against the racketeering counterfeiters who had the audacity to manufacture wampum out of inferior kinds of shell, or even out of pottery, bone and wood. For at so early a date as this, "sound money" was an agitated issue!

Science News Letter, February 23, 1935

PHYSICS

Measurements All Fictions, Valid Because Agreed On

DISTANCE and height, weight and temperature, all measurements soever, have no "real" existence in any absolute sense. They are all fictions. They work in everyday life simply because we all agree to accept the same fictions.

To become a bit Gertsteinian: A foot is not a foot because it is a foot; it is a foot because nobody will say it is not a foot.

Upsetting ideas on "Fiction in Measurement" were tossed before the members of the Washington Academy of Science by its retiring president, Dr. L. B. Tuckerman, physicist at the National Bureau of Standards.

There is nothing immoral about these agreed-on fictions, though they affect our lives in dozens of ways, and even bear on such almost-holy things as international boundary lines, Dr. Tuckerman emphasized. On the contrary, they are most convenient—indispensable, in fact, if we want to maintain any kind of a civilization. Only, for the sake of keeping our thinking straight, we should not forget that they always are fictions.

As striking example of what he was talking about, Dr. Tuckerman showed photographs on the finer-than-hair lines on the U. S. standard meter bar kept at the Bureau of Standards. Every accurate measuring device used in this country is calibrated by the distance between that pair of thin lines. They were ruled on the bar by the most exact method known, fifty years ago, and have never been touched since. Magnified thirty times, they still appear beautifully even and smooth.

Then Dr. Tuckerman flashed on the screen a photograph of the same lines, magnified 300 times. They looked like rough plow furrows.

Obviously, something for mutual agreement rather than absolute determination. Yet this mutual agreement results in accuracies as close as one or two parts in ten million, far beyond any of today's technical needs.

Agreement, convention, acceptance of a fiction must rule actual commercial measurements, too, the speaker pointed out. He showed a picture of a microscopic section of a piece of balloon cloth for which the Bureau had to set a thickness measurement. On such a large scale, it looked as rough as a chunk chopped out of a doormat. Yet by acceptance of a convenient agreed-on fiction a satisfactory measurement was possible.

As with length and thickness, so with other measurements: time, weight, electromagnetic units, temperature. The importance of accepted fictions can hardly be better demonstrated than by trying to make out the meanings of estimates of heat and cold dating before the invention of thermometers, Dr. Tuckerman pointed out. Just how hot, for example, he asked, was the fiery furnace seven times heated, into which Nebuchadnezzar ordered Shadrach, Meshach and Abednego to be cast?

He also cited the case of one of the earlier thermometer scales, that began with zero at the boiling point of water and measured downward for "degrees of cold," to 100, which was placed at freezing point. Inverting this curious scale gave the world its present Centigrade scale, used by science everywhere