

## ECONOMICS

# Soddy Called Money Form of National Debt, Not Wealth



Milbank Memorial Fund  
RESTORED FACE

*A new surgical operation changed the face above, twisted by facial paralysis, into that below. This girl may now smile and laugh with her friends, for she has also been given full control of the formerly helpless muscles.*

the animal's body onto the injured facial nerve gave both voluntary control and emotional response of the facial muscles. Earlier methods even at their best are said not to have permitted emotional expression and the voluntary control was made with an effort.

The principles developed in the work with animals have been successfully applied to human cases. Recently Dr. Duel has found a way of shortening materially the time for the graft to "take" after the operation.

*Science News Letter, February 25, 1933*

The Braille technique of writing for the blind by means of a raised dot system is now being extended to the representation of line drawings in Braille books.

This is the fifth and last article of a series presented to illuminate the backgrounds and objectives of the movement that has found expression in the discussion of Technocracy. The material is given as information and news, not as our opinion or with our endorsement.

**T**HE COMMON idea that money is wealth is combatted by Prof. Frederick Soddy, British Nobel prize winner in chemistry, who in his 1926 book, "Wealth, Virtual Wealth and Debt," looked at economics with the eyes of a physical scientist and enunciated some of the ideas being advanced by Technocracy.

"Money is now a form of national debt," Prof. Soddy wrote, "owned by the individual and owed by the community, exchangeable on demand for wealth by transference to another individual. Its value or purchasing power is not directly determined by any positive or existing quantity of wealth, but by the negative quantity, or deficit of wealth, the ownership and enjoyment of which is voluntarily abstained from without the payment of interest, by the owners of the money, to suit their individual business and domestic affairs and convenience. The aggregate of this deficit is called the Virtual Wealth of the community, and it measures the value of all the money owned by the community, which is forced by the necessity of exchanging its produce to act as though it possessed this amount of wealth more than it actually does possess. The Virtual Wealth of a community is not a physical but an imaginary negative wealth quantity. It does not obey the laws of conservation, but is of psychological origin. It increases with the number of the population and the national income and varies over long periods of time with the habits of the people and the way they conduct their business and domestic monetary affairs. It is only when the Virtual Wealth is constant that the general level of prices is directly, and the purchasing power of money inversely, proportional to the quantity of money in circulation."

If our economic and governmental

affairs were to be ruled by technology and science, Prof. Soddy would make changes in banking and other economic systems. He pointed out that banks create and destroy money arbitrarily without knowing what they do, that they regard themselves as the owners of non-material, negative wealth and lend it and charge interest upon it.

The banks through the operation of the check system, he charged, have usurped the prerogative of the government with regard to the issue of money. In this way, in Prof. Soddy's opinion, the people through their political representatives have abdicated the most important function of government.

Prof. Soddy favored the regulation of total quantity of money in circulation according to the index number of the general price-level.

He also urged that banks should be required by law to keep on hand national money, dollar for dollar, for their customers' deposits, and be allowed to loan only the money deposited with them for that specific purpose and for definite periods.

## Debt Said to Be Psychological

When through application of science to economics, it is realized that wealth is physical and debt is psychological, the most astonishing simplifications are produced, Prof. Soddy declared.

"There will, of course, be plenty of people who will argue that the psychological is as important as the physical," Prof. Soddy wrote. "But few will have the hardihood to claim that the understanding of the psychological side can offset crude initial physical misconceptions between wealth and debt and the vulgar perpetual motion fallacy of the older economists. Such errors would have precisely the effect they have already produced in a world administered by and made up of supermen and angels.

"Democracy so far has but seized the shadow and has yet to grasp the substance of sovereignty or be discredited for all time. Its first step must be to end the conspiracy of silence in its organs of publicity and instruction concerning the one prerogative of govern-

ment which underlies and controls all effective political action, and to insist upon its monetary system being as public and open to criticism and conscious alteration as its political system.

"With adequate knowledge of the physical realities that dominate the economic affairs of peoples, the road is clear for unlimited progress and the attainment of universal peace and prosperity. The evils that in the past have paralysed the very heart of nations lie patent and beyond concealment. So they pass beyond the power of further harm. Only that rarest kind of courage—intellectual fearlessness and honesty to face things as they are and not as they appear—is required to abolish poverty and economic degradation from our midst in less time than the War took to run its course. Whilst on the international horizon there dawns the hope that a rational solution may be found to the problem of modern war, and a better use be made of the prodigal gift of science than to destroy the surplus wealth and population in fighting for markets and the increase of national debts.

#### Idle Industry a Cause

"Were all the most powerful vested interests in the world solid and inter-linked against the cause of humanity and freedom, were money, the lust of power and the distilled essence of all the superstitions that have ever swayed the minds of men, arrayed against the growth of knowledge, who need doubt the ultimate issue? The road is open for all men and women of good-will

to drive onwards to their goal.

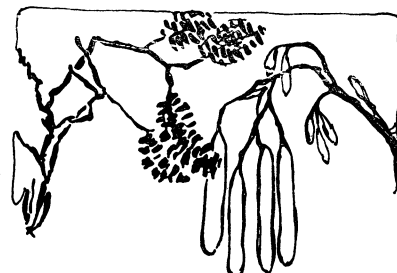
"People know in their hearts that it is only a matter of time before another war will come, greater and more terrible than the last in proportion as it is delayed. Not an iota of the fundamental economic causes which produced the last has been altered. The peace has abundantly sown the seeds of future inevitable national conflict. The vast potential productivity of the industrialized world, particularly in the engineering and chemical industries, must find an outlet. If that outlet is by financial folly denied it in the building up and reconstruction of the home-life of nations, it remains as a direct and powerful incentive to the fomenting of war.

"If anyone doubts, let them visit, for example, a modern steel works—of which there are many in this country, [England] each alone, it is estimated, capable of supplying the total national requirements in our present impoverished state. Even if he chanced on a day when the plant was in full operation, he would see only a man here and there doing almost nothing to speak of, where, only a generation ago, the place would have been alive with an army of almost naked workmen rushing about and shepherding the moving flow of incandescent steel. A few 15,000-h.p. motors, worked with the sunshine of the summers of the palaeozoic era, have emancipated the human worker to leisure in the streets, to live on the dole and rear his family so against the day when the nation shall need them all again, and war, the consumer, shall turn all this potential wealth into national debt. Yet we affect to be shocked by the customs of the ancients, who exposed their superfluous young naked to the rigours of the winters' night, or sacrificed them with music and religious fervour on the altars of Moloch and Mammon."

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Archaeologists excavating the Egyptian town of Karanis have found a large fort-like building, and scraps of papyrus written in military red ink indicating that a Roman legion was stationed in or near the building.

Government tests show that school children who drink milk through a straw fail to get the richest part of the milk, if they leave some in the bottle—unless the bottle is shaken up first, or unless the milk is homogenized to break up the fat particles.



#### A Pleistocene Rearguard

ONE GEOLOGICAL episode ago, when the line of permanent snow crept southward a little each century, until at last the whole land groaned with ice as far south as Ohio, Iowa and Kansas, one forerunner of the cold must have been the alder bush, thrusting itself in among the forests of the then warmer climate and warning them that they were about to be dispossessed. When the ice retreated, after sundry tens of thousands of years, the bulk of the alder army trooped after it, but a strong rearguard still remains with us. One species, indeed, the smooth alder, even maintains its outposts as far south as Florida and Texas.

The alder tells us of its high-northern origin and affinities by its blossoming habit. It is earliest of all trees and shrubs to flower, trailing out its catkins in the cold air of March, or even of late February, when even the furred pussy willows are dubious about venturing forth.

Like the willows and birches and poplars and other earliest-blossoming things, the alder is a wanton and a spendthrift of its flowers. It bears them in great numbers, strung together in bunches or strings, which learned botanists call "aments" among themselves, and unbend sufficiently to call them "catkins" for the benefit of the less schooled. Like the willows also it bears male and female flowers on separate bushes, producing vast quantities of pollen and depending on the wind to carry the fertilizing grains to the female flowers. It must needs depend on the wind for at alder-blossom time there are very few insects abroad.

*Science News Letter, February 25, 1933*

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The Science Service radio address next week will be on the subject

**SQUARING THE CIRCLE**

by

**Dr. Edward Kasner**

Professor of Mathematics at Columbia University

**FRIDAY, MARCH 3**

at 12:45 P. M. Eastern Standard Time

Over Stations of The Columbia Broadcasting System