and see a more gnome-like Santa bent over by a heavy load and with a doll dangling from his arm.

For the photograph on the cover, the SCIENCE NEWS LETTER is indebted to Dr. Walter B. Jones, state geologist of Alabama.

*Science News Letter, December 25, 1937*

PSYCHOLOGY

# Propaganda Analysis May Protect You Against It

POWERFUL weapon in war and peace, in education and in delusion, is artful propaganda.

Rousing emotions, deliberately avoiding appeals to the intellect, propaganda is potent in producing action without deliberation. Under its influence, men and women may assume and perform acts that later in sober retrospect are sincerely regretted.

Examination and analysis of propaganda is the only defense of the consumer against such unconsidered action. Aid is given in a discussion of common propaganda devices contained in the current issue of "Propaganda Analysis."

First is the device of "Name Calling." Humans are so constituted that they build up strong dislikes for certain labels. Anything, good or bad, to which such a label happens to become attached is automatically rejected. Some of today's bad names as listed in the discussion are: Fascist, dictator, Red, Communist, economic royalist, rabble-rouser. You will undoubtedly recall others of a few years back: Bosche, slacker, pacifist, profiteer. The name "chiseler" had a great vogue during Blue Eagle days but is no longer quite so potent.

Other devices are (1) "Glittering Generalities" by which the propagandist identifies his program with "the right" by use of virtue words such as: Social justice, liberty, public service, democracy. (2) "Transfer" by which the prestige of an established institution, church or nation, is made use of. (3) "Testimonial" or the use of big names. (4) "Plain Folks" such as the old familiar front porch campaigns. (5) "Card Stacking" against facts, ranging from carefully placed emphasis to downright lies. (6) "Band Wagon" by which we are urged to follow the crowd.

If you keep this list of propaganda devices in mind and watch for them in radio talks, in articles on politics or current topics, even in the arguments of your friends, you will be amused to see them cropping up again and again and in this mood your emotions may not be carried away.

*Science News Letter, December 25, 1937*

ENGINEERING

# Wood Is Major World Fuel; But Coal Is Power Leader

IN this modern world it may come as a surprise to know that an eighth of the power used by mankind is from firewood, most primitive of fuels. This is approximately twice as much as comes from water power.

Coal is responsible for 56.6% of the 1935 world power supply, with 16.5% from oil. Lignite and gas furnish 3.7 and 3.8%.

In the last quarter century the proportion of the power derived from coal has decreased although it has been stationary over the last four years. Oil and water power use has risen.

Because of increased efficiency in the use of coal—making more iron and steel through the use of the same amount of coke, for instance—it is expected that there will be a decline in the consumption of coal even with accelerated industrial development.

Because coal and oil are irreplaceable natural resources there is cause for long-time satisfaction in such better economy. Experts foresee that the protection of oil and coal resources will be first attained, as Dr. E. F. Armstrong, London chemical consultant, expressed it, when these materials cease to be squandered and are used only in the form of residual products after more or less extensive chemical changes. The burning of raw coal may some day become an industrial if not a legal crime.

Countries without natural oil may bring about relatively large scale production of synthetic oils from coal much earlier than now predicted.

The crackling log on the open fire seems not to be destined for world extinction for many years to come, if ever. Wood as fuel is still of prime importance in heavily forested and thinly populated areas. The chemist eyes wood jealously because of many complex compounds within it. He may eventually present us with synthetic logs for our fireplace, compounded from the residues of his chemical utilizations.

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ANTHROPOLOGY

## Man Got Up On His Legs Before He Could Think

MAN learned how to stand up before he learned how to think.

This was one of the points developed in an address before the New York Academy of Sciences, given by Dr. Dudley J. Morton of the College of Physicians and Surgeons, Columbia University.

The animal ancestors of man were quadrupeds, Dr. Morton said. In a tree-dwelling phase of life they gradually learned first partially erect, finally fully erect posture and walking.

"Since attainment of upright posture preceded any high development of reasoning powers," commented Dr. Morton, "the change was obviously conferred or imposed on our prehuman ancestor through the orderly workings of Nature and could not have been accomplished through any enlightened choice on his own part."

*Science News Letter, December 25, 1937*

## From Page 405

ported from Cretaceous beds, 100,000,000 years old, have been found in Cretaceous rocks of eastern Colorado.

Apataelurus, a primitive carnivorous mammal of 50,000,000 years ago, whose remains were found recently in Utah, greatly resembled the saber-toothed tiger that lived only 1,000,000 years ago.

Publication of the findings of the Byrd Antarctic Expeditions was made a government project.

Numerous cooperating agencies compiled the first weather cyclopedia of North America.

Record-breaking floods visited the Mississippi, Ohio and Connecticut valleys during