

INDUSTRIAL RESEARCH

Does Revenue Act Provide Federal Research Subsidy?

NOT ALL the industrial companies and corporations may know it yet, but the federal "Revenue Act of 1936," which greatly upset the existing structure of corporation taxes on undivided surplus, has the effect of being a major boost for private industrial research.

Under the 1936 tax act, reveals the *Industrial Bulletin* of Arthur D. Little, Inc., a firm with a taxable income of \$100,000 would have to pay a normal tax of over \$13,000 and on top of that any extra surtax, bringing the total to more than \$31,000 or nearly 32 per cent.

The problem is how to apply this \$100,000 income in a way benefiting

the company and not have it taxable. The company could pay the \$100,000 in dividends but then the money is lost for future use by the company. Improving plant and buying new equipment would be one way out, but not a cheap one, for if land for expansion, or new equipment were purchased, the government would collect sizable taxes amounting to over \$6,000 on a \$60,000 purchase. Even life insurance premiums on the officers of the company paid out of this money would be taxable at about 32 cents on the dollar.

The alternative is to spend the anticipated earnings of the year in additional research or developmental work or on promotion, advertising and other

controllable expenses so that no taxable profit would occur.

Says the *Bulletin*:

"Under the 'Revenue Act of 1936' the government in effect gives a 32 per cent subsidy to the corporations with large potential profits who utilize their current earnings in this way. Many far-sighted business men will divert more than normal amounts of current earnings to research and to other constructive expenditures so subsidized, rather than adopt the questionable alternative of distributing all these earnings in dividends to avoid the heavy penalty surtax."

Science News Letter, September 5, 1936

PHYSIOLOGY

Locates Instinct Centers In Middle of Animal Brains

THE PART of the brain concerned with instinctive actions in animals has been located by Prof. E. Grünthal of the psychiatric and neurologic clinic of Würzburg University.

Prof. Grünthal finds that the instinct centers lie in the middle part of the brain, in structures known technically as the thalamus and hypothalamus.

This location of the instinct centers resulted from investigations of structural differences in the brains of man and other animals. While most investigators in this field have looked for those structural details which are more highly developed in man than in animals, Prof. Grünthal reversed the process. He holds the opinion that while man is distinctly superior to other animals in intellectual abilities, he is as distinctly inferior in regard to instinctive action. Consequently there must be some parts in the brain of animals which show a better development and a higher degree of differentiation than man's. These parts could be regarded as the chief organs of instinct action.

In the middle part of the brain Prof. Grünthal found what he believes to be such organs of instinct. These organs contain nerve centers or nuclei, which are much more numerous and more highly differentiated in other animals than man, and show a gradual decline in numbers corresponding to the evolutionary ascent. These particular nuclei are found in relatively large numbers in the brains of bats, rabbits and mice; in lesser numbers in brains of the carnivorous animals; and are least numerous in brains of gorillas and orangs. They are of nearly the same number and type in the brains of men and chimpanzees.

Science News Letter, September 5, 1936

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