W. H. Cross ranch, near the southern rim of the Powder River Basin, at a depth of only 156 feet, the bit penetrated a sand member containing a non-inflammable gas, under considerable pressure, so the well was shut down for a check and testing.

Warren D. Skelton, Wyoming state mineral supervisor, took a sample of this gas, and turned it over to the U. S. Geological Survey testing laboratory, in Casper, Wyoming. The analysis made by J. G. Crawford, chemist there for the Geological Survey, shows this sample to be 100 per cent. pure nitrogen gas. In a letter concerning this unusual occurrence to the writer, Mr. Skelton states: "I am certain the sample was in good shape for analysis when taken, as the gas was allowed to flow through the tube for some time before the connections were closed and the sample taken confined."

The official report furnished to me by the state mineral supervisor shows that this nitrogen gas developed a rock pressure of eleven pounds in ten minutes. As the top of the sand was barely penetrated, according to information furnished by the drillers, it is probable that this does not represent the total rock pressure present here. It has been the writer's observation that actual top pressures may take much more time than this to develop, with other natural gas wells of relatively low pressures, even when the sands have been fully penetrated by the drilling bit, particularly where such sands tend to be "tight," *i.e.*, of low porosity, or partially cemented up. Consequently, a considerable pressure of this nitrogen gas may be present in this formation and locality. The well was shut down and closed.

Because of the possible use of this remarkable natural gas for present war emergency purposes, it seems important to call general attention to its existence at this time.

HAROLD J. COOK,
Consulting geologist

AGATE, NEBRASKA

ADVERTISEMENTS IN SCIENCE

I HAVE just received the issue of SCIENCE for February 6, 1942. I wish to raise again a question of which I spoke once before, namely the small amount of report and discussion of the scientific matters of the annual meeting and the large amount of advertising.

I check 23 pages of reports and accompanying discussions, and 65 pages of advertising. The reports and discussions are preceded by a little more than half of the advertising. When I first picked up this issue its size gave me the impression that we would have a more than usually full account of the meetings. Examination showed that my first impression was decidedly wrong. Indeed, as I turned the pages looking for the reports, I was disturbed and much disappointed in being forced to the conclusion that the science meetings, so far as the reports go, are merely the agencies for carrying a huge amount of paid-for advertising. I am fully aware that the advertising is what pays mostly for the publication, as well as for profits beyond costs. Although the magazine is the property of the editor it is listed as an official organ of the American Association for the Advancement of Science and undoubtedly many members think of the American Association for the Advancement of Science and the magazine as closely related in policies. Hence my brief comments from which I omit a good many points which occur to me.

OTIS W. CALDWELL

As Dr. Caldwell's point of view may be shared by other members of the American Association for the Advancement of Science, it seems desirable to give an explanation of the situation. SCIENCE issues one special number a year and selects the one containing the report of the annual meeting of the association which is sent to all members of the Association and to some scientific men who should become members. Consequently, the issue for February 6 had a circulation of 30,000 copies.

This provides an attractive opportunity to publishers of scientific books, makers of scientific instruments and dealers in scientific supplies to reach practically all the scientific men of America through the insertion of a single advertisement. If such an advertisement were inserted in each of the special scientific journals the cost would be perhaps fifty times as much. There is no advance in charges for advertisements in the special issue, which has twice the usual edition. Consequently, profits to the journal are much smaller than in the regular issues. It is an opportunity for advertisers to come in contact with scientific men and to demonstrate their interest in research work. The special issue of SCIENCE is welcome to scientific men for the report of the annual meeting of the association and because the advertisements are of interest to them. The number can be kept through the year as a summary of the work done and as a directory of what is being accomplished by publishers and manufacturers to cooperate in work for the advancement of science. For this end publications and apparatus are as essential as the work of scientific men.

The special issue contains the same number of reading pages as the regular issues of the journal, which prints two volumes a year of about seven hundred pages each. In 1940 the number of pages of reading matter in the first volume was 704; in the second volume it was 698. This is equal to the contents of twenty books which might sell for three dollars each. Members of the American Association pay three dol-

lars for the annual subscription. There are but few journals—perhaps no scientific journals—of the size of SCIENCE that are supplied at such a moderate rate. The subscription to *Nature* is £4″10s″0d.

The expenses of SCIENCE, according to the audit report of 1940 (the report for 1941 is not yet ready), adding $10,000 as the estimated value of the editorial work, are $68,439. In 1941 there were 15,185 subscribers, making the cost of supplying the journal to each subscriber $4.51. It is possible to supply the journal to members of the association for three dollars each only on account of libraries and other subscribers who pay the regular subscription price of $6.00, and principally on account of receipts from advertising, which in 1940 amounted to $33,297.

These advertisements are not only of value to advertisers, but are also useful to readers of the journal. One of the most distinguished scientific men in America paid a doubtful compliment to SCIENCE by writing that he found the advertisements the most interesting and useful part of the journal. Great care is taken by the editor to admit to the advertising pages only announcements that are regarded as promoting the advancement of science. Not only does SCIENCE contain no advertising of tobacco and liquors, but there are no announcements of automobiles and other products of scientific invention which might be regarded as of interest to scientific men. Every effort is used to make the advertisements informative and not primarily competitive. Advertisements are not accepted that make extravagant claims, and advertisers cooperate with the journal in presenting their announcements in a scientific and dignified form, such as is in place in a journal such as SCIENCE.

SCIENCE has been the official journal of the American Association for the Advancement of Science since 1900; during this period the membership of the association has increased from about 1,200 to more than 23,000. Since the agreement of 1938, SCIENCE has been the property of the association, though the present editor retains control until he dies or voluntarily relinquishes it. The control will then be taken over by the association and will rest in the hands of members of the executive committee and of the council. Like the present editor they will doubtless realize the importance for the advancement of science in America of intimate and cordial relations between scientific workers and those who publish their work and those who supply them with the necessary apparatus and supplies. Scientific progress is the joint product of research men and manufacturers. This is notably the case in the great industrial laboratories on whose knees lies the future of science and civilization.

EDITOR

SCIENTIFIC BOOKS

RESEARCH AND STATISTICAL METHODOLOGY

The Second Yearbook of Research and Statistical Methodology Books and Reviews. Edited by Oscar Krisen Buros. xxii + 383 pages. Highland Park, New Jersey: The Gryphon Press. 1941. $5.00.

IN 1625 Francis Bacon, in his essay "Of Studies," wrote: "Some books are to be tasted, others to be swallowed, and some few to be chewed and digested; that is, some books are to be read only in parts, others to be read, but not curiously, and some few to be read wholly, and with diligence and attention." Had he lived to-day, he might have added that some books ought not to be read at all. At no time in the past has there ever been such a need for guidance in selecting books for reading, study or reference. Presumably, book reviews are written to provide such advice. If this is the case, then a reviewer is placed by his role in a position of trust; especially when his prominence is such as to give special importance to his opinions. It is regrettable, therefore, when prominent individuals write inconclusive reviews of books the subject-matter of which is well within the domain of their proficiency. It is likewise unfortunate when reviewers venture outside their competence. Nowhere are these regrettable occurrences more prevalent than in the reviewing of books on statistical theory and methodology. Furthermore, the consequences are serious, for the majority of readers and users of statistical text-books and manuals are not qualified to judge the validity, accuracy or limitations of the material before them. In selecting a book on statistical theory or methodology, it is often necessary at the present time to examine several reviews of the same book. This comparison of evaluative statements appearing in diverse journals and periodicals is greatly facilitated by the book under discussion here.

"The Second Yearbook of Research and Statistical Methodology Books and Reviews," like the first volume of this series,[1] is a collection of book review excerpts. By the editor's count, " 'The Second Yearbook' contains one thousand six hundred and fifty-two review excerpts from two hundred and eighty-three journals compared to six hundred and thirty-five review excerpts from one hundred and thirty-one journals in the first volume." Only one journal, *Economica,* did not grant permission to excerpt its reviews; suitable

[1] "Research and Statistical Methodology Books and Reviews of 1933–1938." Edited by Oscar Krisen Buros. New Brunswick, N. J.: Rutgers University Press. 1938. $1.25.