Bibliofilm Service now operating in four Washington libraries puts at the disposal of every one doing serious research the resources of the most complete collections of scientific literature in the United States. From the standpoint of original literature microfilms places those doing research in the most isolated institutions on an equality with those working in immediate proximity to complete collections of scientific periodicals. It may be expected therefore that many who have hitherto been prevented from undertaking research for want of proper library facilities, will now find it possible to devote themselves to the numberless scientific and technical problems awaiting solution.

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IMPROVEMENT OF SCIENCE INSTRUCTION

THE American Association for the Advancement of Science Committee on the Improvement of Science in General Education[1] held a meeting at Chicago on December 3 and 4, on one aspect of which a preliminary report has already been made.[2] Some of its findings may be of interest to readers of SCIENCE.

Of 2,565 inquiries sent out last May, seeking information on what college and university teachers of science were thinking and doing about adapting their offerings to the requirements of *general education,* in distinction from *specialist education,* more than 1,200 replies had been received. Eleven hundred of these had been analyzed to date, yielding, among other things, the following information.

Of those replying, 64 per cent. were doubtful or more than doubtful about the value of the conventional introductory college courses in the various sciences to non-majors. 70 per cent., however, feared that attempts so to modify first-year courses as to make them of greater value to non-majors might be attended by the danger of making the courses superficial.

There seemed, nevertheless, to be little disposition to maintain the *status quo,* for 86 per cent. had made changes in their introductory courses within the last five years, of sufficient extent to justify report.

Insufficient motivation for a study of teaching problems seemed to be regarded as a handicap, for 62 per cent. felt that the disproportionate emphasis placed on publication of results of "pure research" as a basis for professional recognition and advancement had retarded the development of a real concern about and research upon teaching problems in the introductory courses in the sciences.

77 per cent. expressed the need for a discussion and clarification of the issue of the place of science in general education at the college and university level.

[1] SCIENCE, 87: 454, 1938.
[2] SCIENCE, 88: 588, 1938.

The fact that only a little over one third of a mature group of college teachers of the sciences possesses unqualified confidence in the value of the traditional first-year courses to non-majors raises several questions. What do they think is wrong with these courses? Along what lines would they undertake improvement? What has brought about their impression of the inadequacy of the first-year science courses to the purposes of general education? These are not easy questions to answer, but the committee is deeply concerned with ways and means of trying to answer them.

Questionnaires are notoriously "slippery" ways of acquiring information, and it was only after some hesitation that a questionnaire was utilized as a first probe, primarily because it was the quickest way of getting started. Other channels of information are being opened up. Special visits have been made by representatives of the committee to 115 science departments where significant experimentation on teaching methods seemed to be under way. An extended bibliography of publications on the relation of the sciences to general education, indexed and annotated, will be prepared for the use of the committee. In addition, as indicated in previous communications, the committee solicits correspondence with any who have teaching experiments under way or who are contemplating such.

Perhaps it should be emphasized that this committee's primary responsibility is to chart the field; only secondarily, if at all, to try directly to solve the problems therein. Some of the problems which loom are, in fact, beyond the ability of any one group to cope with. Hence the wisdom of the founding committee of the American Association for the Advancement of Science, which provided, among other things, that this committee should clarify and define the problems involved in teaching the sciences as a part of the program of general education; serve as a clearing house for coordinating the activities of the several agencies now at work on parts of the whole problem as well as new agencies which may be initiated for the improvement of science teaching; act in an advisory capacity on any studies approved by it and supported through it; require and coordinate reports of such studies and provide for publication of the findings.

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THE BENLD METEORITE, ILLINOIS NO. 2

ON September 29, 1938, between the hours of 9:00 and 9:10 A.M. occurred the second meteorite fall ever to be recorded within the state of Illinois. This important event took place in the south edge of the town of Benld, Macoupin County, near the southeast corner of the S W ¼; S W ¼; Section 31, Township 8 North; Range 6 West of the 3rd P.M. (89° 48′ 52″ ± W. Long.; 39° 05′ 14″ ± North Lat.)

In falling this meteorite penetrated the roof of a frame garage and the top of a Pontiac coupe therein, making a neat hole in the cushion of the car to the right of the driver's seat. It also broke the floorboard beneath the seat, and made a slight dent in the car's muffler. The meteorite itself, however, did not hit the ground, as it had become so entangled in the springs of the cushion that it was snapped back up into the cushion by the recoil of the springs.

When discovered and retrieved by the owner the same afternoon, it was found to be roughly prismatic (almost rectilinear) in outline, with dimensions of approximately $110 \times 90 \times 80$ mm. It weighed 1,770.5 grams in air, (after two small fragments of undetermined weight had been removed), and possessed a S. G. of 3.69. Its outer surface was entirely covered with a jet black velvety crust from $\frac{1}{2}$ to 1 mm in thickness. Its interior exhibited a dark gray surface, with chondrules well developed, speckled freely with bright metallic grains of a silvery luster. From weight and appearance it would classify as a typical aërolite.

By the perfect alignment of the holes made in the roof, car and seat, the final end course of the meteorite was determined to be 64° 46′ east of north and at an elevation of 77° 31′ above the horizontal (12° 29′ from vertical). Until more distant observations on its course are obtained, the announcement of its positive direction, radient and velocity must be held in abeyance.

The property upon which the meteorite fell belongs to Mr. Edward McCain, which makes him the owner of the specimen. While it landed with a roar which sounded like "an airplane going into a power dive, and ending in a crash," no one has been interviewed who actually observed its passages through the air. It struck, however, within approximately fifty feet of Mrs. Carl C. Crum, who was working in her yard, just across the alley, at the time. She reported that she could see no smoke clouds and observed no fumes. Thinking that a "plane" had crashed into the rear of their barn, Mrs. Crum rushed out into the alley, and was greatly perplexed on finding no apparent damage to the building. The roof of the garage through which the stone actually fell was so oriented with respect to her position that she was unable to see and observe the hole in the roof from the spot where she was working.

The sound was also heard by Mrs. McCain, who was out pumping water at the time, but somewhat farther from the garage. Several neighbors who were indoors also heard what they took to be an airplane passing over, but "thought nothing of it." This occurrence is certainly unique in several respects, as we believe it to be the first authentic case of any meteorite ever striking an automobile, or for that matter a vehicle of any kind; and the first where its end course could be accurately measured from three established points penetrated in its fall. We also believe Mrs. Crumb came nearest to being actually hit by a meteorite of any person on record in this country. So far as is known, this was a lone individual stone, there having been, to date, no report of others having fallen in the vicinity at the time.

BEN HUR WILSON

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WHAT DID THE BLUE JAY DO WITH THE NUT?

THIS afternoon (November 21) I observed the following quick sequence of events, which occurred on my front lawn:

1:45. A grey squirrel, answering my tapping signal, ran up a rustic incline which leads to a window box, to secure a nut (paper shell pecan) which I offered him through an open window.

1:46. This squirrel scampered back to the lawn to a point about 15 feet away. He buried the nut and raked a brittle oak leaf over it.

1:47. The squirrel returned to the window box for a second nut. Immediately a blue jay flew down to the precise spot where the first nut had been buried, pecked vigorously through the oak leaf into the soil, and in about 30 seconds seized the nut in his bill and disappeared with swift and sudden flight into a towering elm near by. What did he do with the nut?

I do not wish to worsen the reputation of the blue jay, but the incident seems worth reporting.

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SPECIAL ARTICLES

MAMMARY CARCINOMA IN THE RAT WITH METASTASIS INDUCED BY ESTROGEN*

IN a previous communication pathologic changes in the mammary gland of the rat induced by estrogen and other hormones have been reported and an early comedo carcinoma of the mammary gland illustrated in a castrated female injected with 200 gamma of estrone.[1] The changes in this animal were not discussed, however, because confirmation of the diagnosis of cancer was lacking at the time. Since this communication mammary cancer in the rat has been in-

* Aided by grant from the Anna Fuller Fund.

[1] E. B. Astwood and C. F. Geschickter, *Arch. Surg.*, 36: 672, 1938. Figs. 8 and 10 are whole mounts and paraffin section depicting early adenocarcinoma. The legends compare the condition to a phase of Schimmelbusch disease in the human.