

Underneath the Waterfalls

William H. Oldendorf's letter (12 Apr., p. 112) concerning the proliferation of cigarette advertising asks why the advertising persists when total sales seemed unaffected by the cessation of television advertising. He suggests that the industry continues to advertise to obscure the addictive nature of tobacco. To quote from his letter, "... it is not immediately obvious why the tobacco industry continues to advertise at all."

But cigarette advertising is not placed by the "tobacco industry"; rather it is placed by manufacturers of cigarettes. Their advertising is aimed at selling their particular brands of cigarette. So long as these manufacturers are competing for the market existing among smokers, they will do what they can to put their own respective products in the most favorable light. That one result of this plethora of advertising is the burial of information about the addictive qualities of tobacco underneath the waterfalls, outdoor life, and other advertising gimmickry need not imply that there is an industry-organized intent to hook the nonsmoker. They do get hooked, of course, but almost always in social settings where it is all too clear that smoking is a very difficult habit to break.

Perhaps there is, in fact, a death wish in people—a wish whose fulfillment is toyed with in smoking. People sometimes get hurt with toys, of course.

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Kuiper Archive

With the untimely passing of Gerard P. Kuiper on 24 December 1973, solar system astronomy lost a foremost pioneer, researcher, and dynamic advocate. His indefatigable search for knowledge led to pioneering research in stellar astronomy, the application of infrared techniques to planetary research, the discovery of two planetary satellites, and numerous other astronomical "firsts." He pioneered the selection of six superior mountain sites which now support major observatories, founded and expanded the Lunar and Planetary Laboratory at the University of Arizona, and maintained a close cooperation with the National Aeronautics and Space Administration. These wide-

ranging activities naturally brought him into close contact with many people.

We are planning to set up an archival collection of materials dealing with the life and works of Kuiper. This will be centered around his library, correspondence, instruments, slides, dictaphone recordings, paintings, and so forth. A shorter-term project will be to assemble, with the assistance of KUAT-TV on this campus, material for a 1-hour television program depicting Kuiper's contributions to astronomy and his other interests. We hope to present many personal glimpses and recollections of his colleagues and friends.

As chairman of a committee charged with assembling materials for these projects, I would like to solicit any relevant items. In particular, we would welcome voice tapes or personal reminiscences of contacts and dealings with Kuiper. We can supply a 7-inch reel of tape for this purpose. Alternatively, a tape cassette could be used, the cost of which would be reimbursed, but the quality may not be suitable for dubbing onto the television tape. All tapes would be retained in the archive. Hand- or typewritten reminiscences would also be invaluable for the archive.

Other items of interest are photographs and slides; recorded or filmed interviews, discussions, meetings, colloquia, and television and radio programs; unduplicated documents, such as handwritten letters; and any other relevant memorabilia. Please indicate whether we may retain these items indefinitely, or whether we should make our own copies and return the originals. Locally made copies will be acceptable. We can reimburse any expenses incurred.

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Superconducting Niobium-Germanium

In his Research News report (25 Jan., p. 293) on superconductivity, Arthur L. Robinson states incorrectly that the first niobium-germanium intermetallic phase Nb₃Ge was made by Matthias and his co-workers at Bell Laboratories in 1963. The very first investigators who reported an Nb₃Ge

phase were Carpenter and Searcy (1) in 1956. In late 1955 and early 1956, I worked out a set of effective coordination number 12 radii for the elements in the β -tungsten structure. The compound reported by Carpenter and Searcy had a lattice constant of 5.168 ± 0.002 angstroms. From my radii, I would have predicted 5.12 angstroms. I therefore felt that the Carpenter-Searcy lattice constant value and, of course, the superconducting transition temperature should be checked. I asked E. Corenzwit to make the compound for me, which he kindly consented to do.

I found that the specimen made by Corenzwit was not single phase, but there was a β -W phase present with a lattice constant close to that reported by Carpenter and Searcy. I then asked Corenzwit to make specimens containing 70 and 80 atomic percent Nb. These specimens were also not single phase, but, in all cases, the β -W phase present had the same lattice constant. The specimen containing 80 atomic percent Nb had the least extraneous phase, and I concluded from this and from the large lattice constant that the phase did not have the stoichiometry Nb₃Ge and that a substantial amount of Nb was replacing Ge in the 2(a) positions. The paper containing this discussion was published in *Acta Crystallographica* in November 1956 (2). Soon after the Nb₃Ge compounds had been made by Corenzwit, Matthias asked me if he could measure their transition temperatures. Transition temperatures of Nb₃Ge were reported by Matthias *et al.* (3) in 1963.

I should point out further that in the paper by Matthias *et al.* (4) on superconductivity of Nb₃Ge made by splat-cooling, there is the following statement: "Geller pointed out that the lattice constant of 5.168 angstroms for an Nb₃Ge compound as reported by Carpenter and Searcy was larger than his predicted value of 5.12 angstroms and suggested that the β -W phase did not have correct stoichiometry."

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References

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2. S. Geller, *Acta Crystallogr.* **9**, 885 (1956).
3. B. T. Matthias, T. H. Geballe, V. B. Compton, *Rev. Mod. Phys.* **35**, 1 (1963).
4. B. T. Matthias, T. H. Geballe, R. H. Willens, E. Corenzwit, G. Hull Jr., *Phys. Rev. A* **139**, 1501 (1965).