

**FRANCIS B. COON**, *Analytical Chemist*

**DIRECT EXAMINATION BY MR. STAFFORD:**

**Q. What is your present position with WARF Institute,**

**Inc?**

A. I am head of the chemical department.

**Q. Generally can you explain and quite briefly please, what the functions of the Wisconsin Alumni Research Foundation are as they relate at least to Chemical analysis?**

A. Well, the Wisconsin Alumni Research Foundation Laboratories as they existed up until January of 1969 were laboratories engaged in consultation, research, development, in areas of food and nutrition. Since January, 1969, we have incorporated the laboratories—they are now a wholly owned subsidiary of Wisconsin Alumni Research Foundation. The laboratories' functions have not changed in any extent.

**Q. And the WARF Institute, Inc. is a for profit corporation, is it not?**

A. Yes.

**Q. How long have you been head of the chemistry department of that organization or the parent organization?**

A. About 12 years.

**Q. What do you mean by residue chemistry if that's the right word to describe your specialty?**

A. Well, the residue analysis consists of analyzing for those compounds which are ordinarily present in minute traces in animal and vegetable matter.

**Q. You began to do that in 1951?**

A. That was about the date, yes, sir.

**Q. And are you engaged in that activity at the present time?**

A. I myself am not as the head of the department, no.

**Q. But you have people under your immediate supervision and control and direction doing the work?**

A. Yes, I do.

**Q. Approximately how long does it take you or others under your control to adequately train personnel to make a reliable gas chromatograph. Spell that witness. I can't spell it, let alone pronounce it.**

MR. YANNACONE : I must object to the form of the question unless we limit it to gas chromatograms of DDT and its metabolites.

EXAMINER VAN SUSTEREN: Well, certainly the gas chromatograph is used for the detection of compounds other than—

MR. YANNACONE: And some analyses are harder than others to trace, much harder.

A. As far as it concerns strictly the use of the gas chromatograph this would not in itself entail a great deal of instruction. Most gas chromatographs are simple enough that one could learn in, oh, six weeks to three months adequately how to use it.

**Q. All right. Now, are there other analytical processes which you must use in connection with the gas chromatograph in order to arrive at an accurate residue result?**

A. Oh, yes, there are a lot of other processes.

**Q. And how long does it take you to train someone to be thoroughly familiar with all of these processes, also; I'm asking generally what sort of apprenticeship does a man have to take in order to be fully qualified to make residue analyses at the present time.**

A. Well, we feel that we would like to have people with us working with the residue group for at least a year before they can do any independent action of their own.

**Q. In the course of your employment with WARF, approximately how many pesticide analyses have you personally made?**

A. I would guess it's one to three thousand.

**Q. Approximately how many have been made under your direction, supervision and control by your co-workers?**

A. Oh, it would be certainly greater than 10,000 and probably not as much as 30,000.

**Q. About what percent of these would be environmental samplings? How many of these samples consist of analyzing pesticide residues in animals, in fish, in birds, in insects, water, soil, mud, air, anything of that character?**

A. Oh, I would feel over the years we have probably done 60% of our work has been in this area. Q. Do you consider that your laboratory here is one of the major residue testing laboratories in this country?

A. I would say it is.

**Q. Now, you do pesticide analytical work for individual scientists, do you not?**

A. Yes, we do.

**Q. Also for corporations?**

A. Yes.

**Q. You also have done extensive work in this area for the United States Fish and Wildlife Service?**

A. Yes.

**Q. And their various laboratories and their scientists?**

A. Yes.

**Q. And for State Conservation Departments, including Wisconsin, etc., have you not?**

A. Yes, we have.

**Q. Now, have you participated in elaborative studies with other experts in this field over the years leading to a development of new methods and techniques in residue analysis work?**

A. Yes, we have.

**Q. And have these studies in your own research led to improvement in the techniques of measuring residues?**

A. Well, the studies are not so much what one would say research as they are a matter of getting people to collaborate on a procedure and from this learn the good things about it and the bad things about it so that a better procedure can evolve.

**Q. Now, these have been carried on have they not, with people in the Food and Drug Administration in the Department of Agriculture, all these various people I have referred to?**

A. Yes, and industry.