device on the buying public in the first place. And, I would like to add to that if, in fact, the program doesn't achieve the most beneficial results, you break down the desire of the public to support future programs. It is on this support that we ultimately have to depend.

Dr. HIBBARD. I believe in this case there will be beneficial results. The general prognostication is that the engine exhausts or effluent will actually decline with time as a result of the regulations which are now being considered and the technology which is now being developed, but that it is the sheer number of automobiles which is going to cause it to go up again and require eventually a longer range solution.

Mr. Daddario. Maybe I can put it this way. If you had the half billion dollars to spend, would you spend it this way?

Dr. Hibbard. Gee, that's an awful hard question to answer. I suspect many of the things that are now being done I would do.

Maybe not all of them. I don't know.

Mr. Daddario. I'm talking about the \$50 device. It comes to half of a billion dollars. You know what it is going to achieve. You have already said that there are problems the nature of which we don't presently understand. We are talking in the final analysis about half of a billion dollars in this one narrow area.

Dr. Hibbard. I believe that this research will-

Mr. Daddario. And, I'm reminded properly that we are not talking about a total of half of a billion dollars. We are talking about half of a billion dollars every year in an area about which we know so little.

Dr. Hibbard. I believe, from what I understand, that the general objectives of this device, is to provide information which is essential to the solution of the problem and it will in addition produce a shortrange solution which will give us time (8 to 10 years), to tackle the longrange problem. I think those are desirable objectives.

Now, from the standpoint of cost effectiveness, I really am not in

a position to evaluate whether it is worth this kind of money.

Mr. Daddario. I don't mean, of course, to have you make a snap decision on a situation such as this, but I would expect that you would support the general theory that we ought to know more about certain areas within which we push expenditures of large sums of funds before we commit ourselves.

Dr. Hibbard. Yes. The only exception I would take to that is that frequently the engineer is faced with making a decision about a problem before he has all the information needed to make a really sound decision.

We may be in this kind of a situation now, and this happens many

times. Mr. Daddario. Well, there is no question, that if we could reach the point where we could find an infallible solution to a complicated prob-

lem such as this, we wouldn't be having these meetings today.

But, as I have listened to testimony here and as we have prepared ourselves for this meeting, there seem to be a multitude of problems the solutions to which seem to be extremely hard to find. We ought to be able to sort these out and come to some understanding about where we stand and how we can approach them.

Dr. Hibbard. I quite agree with that.