think he has more of the details on these individual contracts than I have.

Mr. ALEXANDER. Each manufacturer was given a basic set of performance requirements that we wanted out of this machine, including the dimensions and the production rate that we wanted to dig these holes, and things of that type, and was asked to come up with both negative as well as positive information; in other words, if they went down a blind alley, to give us the benefit of the approach they considered at that time, and each of them did come up with a number of areas that they had considered at one time and then discarded before they finally came to their recommended approach.

Both of the contractors of the higher amounts did have more alternatives than did Mr. Orlaff.

Mr. SANDWEG. Is this a usual procedure in automotive equipment, which I imagine this would be classed as, to give three contracts out like this for R. & D.?

Mr. NEW. First, this is not an automotive type contract. This is for a device, the like of which no one has conceived in the past. The most closely related type of equipment you have is in the mining industry and in the earthmoving industry. Now this is not unusual to solicit proposals for such a device, in that we feel that it essential that you take advantage of the best talent you have throughout industry on a new device such as this, particularly when the end item is going to be very costly, at best; and while we have considerable talent in our own laboratories we would never have the talent that would supersede the talent we would have in these industries on the outside.

I would say this should not be unusual for this type device.

Mr. HARDY. Well, now, these contractors were not supposed to bring in a model. They were just supposed to give you a design; is that right?

Mr. NEW. No, sir; they were to give us a small scale model of the device. It would not be designed in great detail, but it would portray the actual major components that would be involved and the type of digging head, and so forth, that is required on the device under their design concept.

Mr. HARDY. Actually, this was only a design contract; it didn't have anything to do with performance other than that which could be computed in the design effort?

Mr. NEW. That is correct, as I understand your statement.

Mr. HARDY. Did they all three bring in designs?

Mr. NEW. Yes, sir, and they were entirely different designs.

Mr. HARDY. Did I understand that you have selected one that you want to go ahead with when you get the money?

Mr. NEW. What we propose to do is to have a test bed prepared that would not represent the full, complete, expensive item, but on which we can put one, and hopefully both, the two best approaches on a test bed to determine whether or not the digging head, which is the crux of the problem, that is it is the principal component—can be tested out in the field to see how well it works before we go into the final fabrication of a complete model.

Mr. HARDY. So you are going to make two of them, make two different heads?