tional "misdeed" on the part of manufacturers in that they would increase the druggist's inventory and other costs of a related nature, and give him an incentive to charge higher prices to cover these increased costs.

VI. COMMENTARY UPON THE STATEMENT OF G. R. CONRAD AND J. W. MARKHAM

The argument that "somewhat peculiar" riskiness attaches to the drug companies because of their failure adequately to discharge their responsibilities for conducting every stage in the product development process in sufficient depth to eliminate all hazards of "unanticipated side effects," of deficient quality control procedures, of addiction potentials, and of toxicity or inefficacy in use, is in itself somewhat peculiar.

If drug development were undertaken from the perspective of the best interests of the public health in the long run, such evaluation might easily take 20 years before a suitably conscientious management could satisfy itself that the drug merited general commercial use. During such a time period, many related drugs might be evaluated concurrently. If during this period a new drug were discovered which proved clearly superior to other drugs being tested, none of the inferior drugs would ever be marketed. Hence the risk of "the development of a competing product superior to" another already on the market should scarcely exist if drug development were as thorough as it should be. (As far as present market risks per se are concerned, however, the word "superior" can be replaced simply with "newer".)

In describing the operation of risk in drugs, the author states: "The types of collapse we refer to do not offer hope, in most cases, of subsequent recovery of the product's market position" (p. 3). But in his oral presentation, Markham illustrated his somewhat peculiar risk No. 2, "the discovery of unanticipated side effects," by reference to Parke, Davis' brand of chloramphenicol, the so-called Chloromycetin. This was an unfortunate choice. When, as early as 1950, this drug proved that its lethal potential extended to the infected, as well as the infecting, organism, some apprehension regarding its use developed, and it was even taken off the market for a 2-month period during 1952. When reinstated, it was only on condition that strong warnings regarding its use be placed on the label and the package insert. For a considerable period of time, chloramphenicol sales were greatly reduced. But Parke, Davis marketing strategies rose superior to FDA precautions. The firm's detail men were given instructions which included memorizing clever and misleading sales spiels and gambits—see the report on the Kefauver administered prices in drugs hearings, pages 192–198—and before too long chloramphenicol sales had risen to the point where it was the most lucrative single brand name drug.

It would appear that the period of temporary shrinkage in sales, even though limited in duration, had benefited the drug in the long run. Micro-organisms had less exposure to it than to other antibiotics, and fewer strains resistant to chloramphenicol developed in the early 1950's. In this instance, the somewhat peculiar risk turned out to be a windfall in disguise.

Senator NELSON. Thank you very much, Dr. Steele.