his first series of tumor transplantations the author obtained well growing tumors after injection of cystic tumor-fluid into rats. In such cases one or very few cells must have given rise to the tumor growth, and these tumors developed in a few cases quite rapidly. Such an explanation is, therefore, improbable. Further, we would have to consider the possibility that the means employed to decrease the virulence of tumor cells are favorable to the growth of bacteria, and that they inhibit in this way the development of tumors. It is certain that bacterial toxins frequently act unfavorably upon the growth of tumors. Against this explanation, however, the objections can be raised that tumors with experimentally diminished virulence did not show any sign of putrefaction, nor did they, after inoculation, cause a formation of abscesses, occurrences which are frequent after transplantation of infected material.

It is, therefore, most likely that the cause of this decrease in virulence is the result of the direct decrease of the vitality of the tumor cells as expressed in their energy of growth. It is, however, desirable to further analyze these facts in future experimental work on tumors, especially as the character of such work necessarily limits greatly the number of experiments a single observer can make. With this restriction it may be stated that the observations here recorded point to the conclusion that it is possible to cause an experimental increase or decrease in the energy of tumor growth, that these variations may be caused by a direct stimulating or depressing influence upon the tumor cells, and that such a stimulating effect may be cumulative.

36 (82). **"Demonstration: Photographs and plumage-charts of hybrid poultry,"** with remarks: **CHARLES B. DAVENPORT.**

Dr. Davenport exhibited photographs and plumage-charts of four hybrids between different races of poultry, and also of their parents, and remarked on the nature of the inheritance illustrated by each example.

37 (83). **"Experimental cirrhosis of the liver": RICHARD M. PEARCE.** (Presented by **EUGENE L. OPIE.**)

The experimental studies upon which this communication is based were suggested by an investigation of the necrosis produced