manufacture of the finished dosage-form products or preparations containing those drugs. As breakthrough discoveries have opened up the fields of antibiotics, cortical steroids, mental drugs, antihistamines, vitamins and nutrients, antidiabetic drugs, and others, a pattern of specialization has emerged. Because of differences in their backgrounds, in their interests, in their early activities, and also because of their inability to pursue many diverse research lines simultaneously, the larger firms have focused their efforts and resources on one, or perhaps a few, areas of exploration. In most of these areas, perhaps with the exception only of mental drugs, developments after the breakthrough discoveries have been of a "stepladder" nature. Those firms first on the ladder have kept ahead of others; entry on the ladder is impossible for smaller firms and extremely difficult even for large firms once the early entrants have gained momentum and acquired patents, thereby protecting all the previous rungs as well as the ones they are now perched on, from being used by potential rivals.

Thus, scarcity of opportunities for entering into the manufacturing of drugs—the chemical substances—has closed entry into the manufacture of finished products, except in those few cases where the bulk drugs are available to all fabricators of preparations containing them.

In most drug product markets the only sellers are those large firms who hold the patents on the drug ingredients. In a few cases other large firms are licensed to use the patents; and the many small firms in the industry are thus limited to the manufacture and sale of products containing unpatentable drugs, drugs whose patents have expired, or drugs which are available because licensing by the patent holder is required as a consequence of antitrust guilt. But even in these few situations, the small firms are not equal competitors of the large ones—because the popularization of trade names (possible only for large firms) in prescriptions renders the generically designated items of the small firms as inconsequential competitive threats.

As a result of this specialization, patent acquisition, and the use of trade names, there have developed two different groups of drug-product markets, which I have depicted in this diagram.

Across the top, that says, I believe, "Products Made from Drugs that are," and then the lefthand column "Patented," in the righthand column, "Unpatented."

Since most drugs, most commercial items, are patented, I have that column to the left larger than the one to the right.

Now, reading down the column, the columns then show the products made from drugs that are patented on the left and on the right, the products made from drugs that are unpatented. Reading across, first we have the private prescription market. This is the market in which, you know, the family physician prescribes a medicine and the prescription is filled at the drug store.

Down below, I have the institutional market. Since approximately 70 percent of drugs—maybe 60 percent now—are sold in the private prescription market, I have made the first row across larger than the row below it.