mining the most economical drive unit.

Table II is a typical selection table. In some instances alternate belt sections are listed, indicating that either makes a satisfactory drive. But one or the other gives the most economical drive, and it is often necessary to calculate and price each drive, and compare them before the proper choice is made. The table footnote is a guide to *the belt section that results* in the most economical drive for a particular application. Larger diameter sheaves sometimes permit fewer belts on the drive. This not only reflects a saving on both the original set and replacements, but actually lowers initial cost of the complete drive. Part of the saving is effected in the lower price of the sheaves. Because of machining costs it is almost always true that sheaves of slightly larger diameter but with fewer grooves for a given drive are lower in price than sheaves of slightly smaller diameter but with more grooves.

Multiple Belts. If multiple belts are used, a slight increase in diameter of sheaves is often enough to increase the horsepower-transmitting capacity of the drive to the point where fewer belts do a satisfactory job. For instance, D section belts on a 13.0-in. sheave driven by an 1150-rpm motor have a rating of 15.3 hp each. Used on a 14.0-in. sheave, they have a rating of 17.9 hp each, or 2.6 hp more for each belt.

On the first drive eight belts have a total rating of 122 hp, while on the second drive only seven belts have a total of 125 hp. Second drive not only has a greater total horsepower-transmitting capacity but is actually lower in price than the first. So it would be more economical as well as a better-engineered drive.

Similarly, on certain drives, a fewer number of larger belts on larger-diameter sheaves often have equal or greater horsepower-transmitting capacity than a greater number of smaller belts on smaller-diameter sheaves. Where this is possible, the drive with the larger belt section is often preferable from an engineering standpoint, and almost always lower in first cost.

It is this principle of selection that is used in the pre-engineered or pre-selected drive sections in V-belt catalogs. Stock drives for normal applications of all kinds are wholly or partly calculated, and only those listed that are best from an engineering angle as well as lowest in first cost and maintenance. This assures the most economical drive for an application without the necessity of a customer having to engineer it himself. It's money in his pocket to use the most economical drive.