

The curve could, of course, be extended to other points corresponding to Cases 3, 5, 7, etc., and could be drawn on "doubly logarithmic" paper and treated as we have indicated for the want-of-income curve.

Similarly the want-for-one-more "sq. ft." of rent or shelter may be worked out as follows:

$$\frac{S_1\rho_1}{R_1} = \frac{1000 \times .24}{3} = 80.00$$

$$W_1R_1 = .75 \times 3 = 2.25$$

giving the point in the curve corresponding to Case 1; and, for Case 3:

$$\frac{S_3\rho_3}{R_3} = \frac{1440 \times .25}{3} = 120.00$$

$$W_3R_3 = .33\frac{1}{3} \times 3 = 1.00$$

from which we see that an increase from 80 to 120 "sq. ft." diminishes the marginal wantability of shelter from 2.25 to 1.00 wantabs.

According to these figures the food curve descends faster than the rent curve, this being due in the calculations to the more rapid change of the percentage (ϕ) spent on food with a given change of income as compared with the corresponding change in the percentage (ρ) for rent. Thus by means of our formulæ we extract from "Engel's law" its true significance psychologically.

In the same way we may calculate the curves for clothing or any other consumption group, provided it is reasonably independent of the other groups. It is not feasible to construct any curve for bread, or butter, potatoes, or other items, the substitutes and complements of which have an important influence on their wantabilities. The reason is that a *curve* can only represent a variable as dependent on *one* other variable. When, as in the case of, say, bread or butter, its wantability depends on many variables (*e.g.*, on the quantities of bread, butter, potatoes), we need something more than a curve. A *surface* can show one variable dependent on two others. Beyond that no purely geometric representation will suffice, although a set of numerical schedules might conceivably be made out.

Of course, these want curves or want schedules, when taken in conjunction with the want curve for income, first discussed, underlie demand curves and schedules.