

Society and allied organizations have laid that foundation because there is no reason why sales analysis should not follow almost exactly the lines of production analysis. It is a scientific problem and we sales executives must recognize that fact before we shall get anywhere. We must eradicate the idea that the human equation controls sales results, or at least we must recognize the human equation only so far as production analysis recognizes it. Production is dependent on labor, its whims and eccentricities, just as fully as sales. We are all working with people, and people in the mass are largely a constant in any formula, be it concerned with its physical manifestations in production or its mental reactions as in sales. That, it seems to me, is the first requisite to a proper grasp of sales analysis and the relation of sales to production.

In the Corona sales organization we have a rather peculiar state of affairs to handle. I suppose almost any sales executive could honestly and sincerely make the same statement in relation to his particular product, but in many instances products are specialized in their application, such as office equipment products like adding machines, addressing machines, or such as electric cranes and hoists. Their field is limited to certain specific uses and locations, while Corona makes its appeal to practically every man, woman, and child who can read and write. For example; The Burroughs Adding Machine Company analyzes its field with great intensity by listing all business concerns in a specific territory which are logical adding-machine users. Similar methods can be employed by the crane and hoist people where a definite and specific field exists for its product. Corona's market analysis, however, must include the home as well as the business house, the doctor, the lawyer, the student, the author and scores of other possible sales outlets. It is obvious, therefore, that an accurate sales analysis of such a problem is not possible. We can deal only in round numbers, and for that purpose we have tried to discover a certain standard by which our field can be estimated.

The standard that we have selected is that of intelligence, since our product is closely associated with literary and business requirements. After careful investigation of various methods of applying the standard selected, we finally adopted, as a basis for the determination of sales possibilities, the circulation of the *Saturday Evening Post*. In this connection it must be understood that Corona is sold through a dealer organization, each dealer controlling a certain specific territory in which he has exclusive sales rights. The unit

of territory is the county. The Curtis Publishing Company furnishes us with data showing the circulation of the *Saturday Evening Post* in each county, and in fact in each large trading center in the country. Using these figures as a basis we then determined arbitrarily upon a constant—representing the number of machines that should be sold in each territory each month in proportion to the *Saturday Evening Post* circulation in each territory. We shall say, for example, that this constant is 200, or in other words, we establish to our satisfaction from various sales records that a dealer should sell one Corona per month for every 200 of *Saturday Evening Post* circulation in his territory. This is his quota; but we have gone further with our analysis and have placed two quotas on each dealer's territory, one on the city in which his place of business is located, and one on his outlying country territory; the theory being that we have a right to expect a larger proportion of sales in the large centers in which the dealer is operating intensively, than in the rural districts where sales expense is high and the population scattered. This, briefly, is our method of determining sales quotas. The total of all dealers' quotas is our monthly budget, and it is on the basis of this budget that we in a general way plan our production. This situation would be ideal and would provide a 100 per cent tie-up between sales and production, providing each dealer could be depended upon to make his quota each month, but of course not having a 100 per cent sales department such an ideal condition does not exist. We have, however, a partial check on our sales budget through the seasonal variation in the portable typewriter business which we have established on the basis of monthly percentages of our total annual business based on sales experience. Thus we know that the period from November to June represents our sales, and naturally our production peak, and we know that the summer months can be depended upon to produce a business slump the proportions of which are fairly accurately determined.

In the foregoing I have not attempted to go into details concerning the various reasons why we selected the *Saturday Evening Post* circulation as a standard for quota, or how we selected our arbitrary constant, or how these are checked every month through monthly sales reports, or the methods by which we sold our quota basis to our dealer organization. All of these are details, but they represent months of intensive study and investigation and are typical of the complexities of any system of sales budgeting which can be depended upon to lead to even fairly accurate conclusions. The meth-

ods that I have described relate to our domestic business only, that is, our dealer organization within the United States. Similar quota methods are in use by our foreign department, but of course based on entirely different standards from magazine circulation. It might be well to say here, as illustrative of one phase of market analysis, that we do not take into account in setting quotas the excellencies or deficiencies of particular dealers; neither are our quotas based to any great extent on past performance. Each territory is made to bear its particular quota estimated on the potential sales volume in that territory without regard to the dealer who controls it. This being the case, we are therefore enabled to set up certain dealer standards, and when certain specific dealers fail to satisfy these standards it is an indication of a dealer weakness and the necessity for a change in representation. This is another illustration of the necessity of realizing that quotas or sales budgets must be based on scientific analysis of sales possibilities without regard to the human equation as represented in this instance by the dealer himself.

You will observe I have treated the subject of quotas rather more liberally than that of actual sales budgets. I have done this because any sales budgets that might be compiled must of necessity be based on quotas. The quota, as I understand it, is as accurate a representation as possible of the sales possibilities existing for any specific article in a given territory; while the sales budget represents that proportion of the total quotas which can be produced, depending largely on the efficiency of the sales department involved. It would be ridiculous to base production on the total of all sales quotas unless the sales department is so efficient that it can produce business equal to that total, and produce it in the shape of smoothly flowing streams of orders, variations in which, according to seasonal activities or other interferences, might be definitely determined in advance. I have yet to come in contact with a perfect sales department, and I am assuming that none of you has had this unusual experience, so that you will understand that the relationship between sales quotas and sales budgets depends directly on sales efficiency. Obviously, the way to secure perfect coordination between quotas and budgets is so to develop your sales department that it will come as near perfection as is humanly possible, and unless you recognize the necessity of such development and are willing to give every possible assistance to your sales department, assuming, of course, that you are willing to accept the sales possibilities as repre-

sented by quotas, this coordination will not be obtained.

I do not propose to enter into even a short discussion of production budgets. Most of you here are much better qualified to discuss that subject than I. Suffice it to say that numerous methods have been developed and approved by which production budgets can be carefully and scientifically laid out to meet certain specific conditions. In a product such as Corona, made up of nearly 700 separate parts, some of them very small, and none of them necessitating a consideration of handling problems, our production program must be well balanced in order that each department shall, as perfectly as possible, cooperate with every other to the end that the finished product may flow to the shipping department without hindrance due to unbalanced production units. This is a part of our production budget problem, the other part being that of satisfactorily meeting sales conditions. By means of our sales analysis and by checking up actual sales performances periodically against estimated possibilities, and by making certain allowances for general business conditions as well as local conditions, we are enabled to keep our production department fairly well informed as to our requirements. I must confess, however, that our present methods of coordination between sales and production leave much to be desired, and I must also make a further confession that the weakness in this coordination lies very largely with the sales department. In extenuation of our weakness in this respect I can only plead lack of sufficiently accurate sales information, but I believe that we are making progress, as undoubtedly are all of you, in the matter of the accumulation of sales and market data, so that as time goes on the coordination so necessary between sales and production will more nearly approach perfection.

You will observe that I have discussed the tie-up between sales and production only from the viewpoint of supply equalling or exceeding demand. I have done this advisedly because, at least with us, our production facilities under present conditions are amply sufficient to take care of demand, and I believe that in the majority of industries this situation is equally true. Furthermore, I believe that for several years to come production in general will be amply sufficient to take care of selling requirements, so that it will be the sales end of most businesses which is and will be in reality the determining factor.

I want to say just a word here in relation to the effect of general and local business conditions on sales analysis figures. Those of you who were fortunate