

tolerances, and the annual cost figures. The latter, of course, are contributed by those engineers of the American Company who are expertly concerned with the plant utilization of the particular piece of apparatus. The steady development of the "E" type relay, of which some four million a year are manufactured, is but one example of the result of such continuous and fundamental investigations.

THE PERSONNEL OF THE LABORATORIES

The work of the Laboratories may be analyzed, as has been done, into the two main physical problems of telephony, or into those functional divisions which have just been illustrated. But neither the recognition of a problem nor the organization for its solution can be effective without a suitable working force, adequate executive leadership, and a group interested in a common field of work, with an *esprit de corps* which stimulates and rewards their best endeavors. For its peculiar problems there has been evolved not only the present functional organization, but also a remarkable corps of investigators whose individual interests and abilities are in part responsible for the formation of the organization itself.

The technical staff of the Laboratories has been broadly recruited over a long course of time. In the training, experience, and point of view of its individuals, it is adequately qualified for its large variety of tasks. Careful selection in employment and the further natural selection of experience have both been effective in producing an organization which is unique in the scientific productivity of its atmosphere. There is an atmosphere in which the technical interests of the various individuals are merged by constant diffusion like the different gases of our physical atmosphere. The outstanding characteristics of the individuals are their creative instinct and their capabilities for effective cooperation and helpful leadership.