

TEXTILES AND CLOTHING. Textiles and clothing taken together constitute one of the chief subdivisions of home economics, and form a subject which has to do with the chemical, physical, and biological nature of fibre, textiles, and other materials used, with the æsthetic, hygienic, and economic values of fabrics and articles of dress, with their relation to household management and with the principles governing their selection, preparation, and use. Broadly speaking, textiles include not only fabrics woven from wool, cotton, silk, linen, and other familiar natural fibres of animal or vegetable origin, but also those made from inorganic substances, such as asbestos, glass, and metal, and from synthetic materials, like artificial silk. Clothing includes all natural and manufactured articles used to cover the body, to defend it from injury, annoyance, the elements, or public gaze, or for purposes of ornamentation; and the term, when so employed, embraces articles for the head, feet, and hands, as well as for the body, and is nearly synonymous with costume (q.v.).

The item "clothing" occupies a conspicuous place in every classified list of expenditures, whether of family or individual, often representing a financial outlay exceeded only by the expenditures for food and shelter. Statistics reported by the United States Bureau of Labor show that in the case of family incomes not exceeding \$1200, about 14 per cent is spent for clothing; and, as the economist Engel demonstrated years ago, this general percentage obtains even in families of far ampler resources. Studies of the budgets of independent working women show a somewhat higher ratio of clothing to the total cost of living, and if to the sum spent for clothing there is added in all cases the cost of textiles used in house furnishing—bed and table coverings and draperies, etc.—the item assumes even greater significance. Because of the commercial importance of these two commodities and of the large sums now invested in their manufacture, problems connected with their production and use are of social as well as of household importance.

As the result of investigations in government, commercial, and private laboratories, information concerning the nature and properties of textile fibres is constantly accumulating, and many of the facts thus obtained have important

bearing on practical questions. Scientists who are studying methods of producing the various fibres are discovering distinctive characteristics of each which serve as a foundation for tests of purity. Others are studying fibres or fabrics with reference to their tensile strength, wearing qualities, reactions towards dyes or cleaning materials, or other matters connected with permanence of color or durability. Still others are studying clothing with reference to porosity, capillarity, hygroscopicity, and conductivity of heat or moisture, in order to throw light upon the relation of dress to comfort and health. The fine arts, too, are the source of much information, chiefly concerning color combinations and designs.

In spite of the rapid increase of knowledge, development of the subject along economic and educational lines has been slow—a circumstance attributable, no doubt, to the fact that fashion has introduced an element which, though elusive and immeasurable, has a well-recognized effect upon values and has interfered with the establishment of standards for judging these commodities based on durability and æsthetic considerations. An expenditure for clothing, for example, unwarranted by health or beauty, may be justified under present conditions of employment by its effect upon the earning capacity of the wearer. It is more difficult, therefore, than in the case of food and shelter to distinguish between necessities and luxuries, and educators have been handicapped in their efforts to organize the subject for teaching purposes.

When household methods of production prevailed, there was an almost universal need among women for training in technical processes—spinning, weaving, sewing, and others—but these were taught by one person to another and formal instruction was almost unknown. With the extension of educational systems to include manual training, courses in sewing and dressmaking were introduced into many schools. These have found favor because, besides training the hand they enrich the general education and are of practical value in the home and as preparation for self-support. Of late, however, need has arisen for the training that enables one to judge of textiles and to understand the hygiene of dress, and this must be based on scientific data. The result is that the subject has been so enlarged on the scientific side that it is finding a place in many colleges and universities. In these institutions, however, the chief emphasis is not upon technique, but upon the historical, scientific, and economic aspects of the subject. Consult: E. H. Richards, *The Cost of Living as Modified by Sanitary Science* (3d ed., New York, 1905); J. M. Matthews, *Textile Fabrics: Their Physical, Microscopical, and Chemical Properties* (2d ed., ib., 1907); Kinne and Cooley, *Clothing and Textiles* (ib., 1913); Woolman and McGowan, *Textiles: A Handbook for the Student and Consumer* (ib., 1913); Barker and Midgely, *Analysis of Woven Fabrics* (ib., 1914). See HOME ECONOMICS and references there given.