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British-Made Film Base

IT is, perhaps, not generally known that, at least until quite recently, even the most "all-British" of films involved one important part that was foreign made. This essential was the film-base, made of a material that, though commonly referred to as "celluloid" is, in fact, made of a non-inflammable material of related composition. During the war, and for most of the period since then, nearly all the film-base used has been imported from U.S.A. This has naturally involved expenditure of dollars, and the scale of this expenditure can be realized from the fact that one British firm alone has been buying American film-base at a cost of nearly two million dollars a year, or over £2,500 per working day. Partly to obviate this dollar expenditure, and partly to enable them to produce X-ray film in the very large quantities required since the National Health Service came into being, Ilford Limited have constructed, in conjunction with B.X. Plastics Ltd., a great new plant that will produce film-base in quantities sufficient to meet all probable demands, and at the same time they have installed an additional film-coating unit of the most modern design.

Ilford Limited are the largest makers in Europe of X-ray film, providing over sixty per cent of that used in this country and in addition exporting a large proportion of their output. The importance of this branch of film-making is hardly realized by the ordinary photographer, but some idea of the quantity of X-ray film consumed can be derived from the fact that it accounts for more than half of all film of Ilford manufacture. It is anticipated that these new installations, now working at full output, will end the shortage of X-ray film that for some years has handicapped our hospitals and slowed up various aspects of medical research. As yet only a small proportion goes to industry, where it is used in the examination of castings, welds, and assemblies, and although this use has increased with the re-armament programme, it has not yet become a serious factor in causing the shortage.

Modern film-base is made from cellulose triacetate, a substance allied to acetate rayon, but of higher tensile strength and water resistance. The basic material from which it is made is cotton linters, a form of fibre too short for spinning. Cellulose triacetate flake is first made into a viscous solution by means of suitable solvents, and this solution is cast on to a highly-polished moving belt, on which the solvents are evaporated by heat. The solution then dries down to a self-supporting layer of film-base, which comes off the machines in a continuous web, rather

like paper from a paper-making machine. After further and prolonged drying, the film-base is rolled up to give rolls about four feet wide and between one and two thousand feet long. Various thicknesses are made for different purposes, the thinnest being employed for roll-film and the thickest for X-ray films.

The great saving in dollar expenditure that this new plant permits must be regarded as a real contribution to the nation's wealth, more particularly as the increased quantity of film-base available, combined with the new coating unit, will provide more generous supplies of X-ray and other film for export as well as for home consumption.

WINTER SPORT.

