

fits which they figured out of their estates, and dared not present them to financiers until they had divided the probable profits by four. Even then, these estimates appeared in the light of a fairy tale, and London financial men shrugged their shoulders, buttoned up their pockets, and thought they had gone a good day's work when they had got rid of the importunate planter and his castles in the air.

The excitement culminated in the historical and regrettable "boom" of 1910. By good fortune, the bubble was deflated without bursting, and now the financial affairs of the plantations are on a very substantial basis.

Nine Millions Cars

American interest was attracted to the plantation industry in 1910, when the British and other Europeans had invested between three and four hundred million dollars in estates. The United States Rubber Company, the largest consumer of crude rubber in the world, was one of the first of the American concerns to investigate the possibilities and enter the field. The Dutch island of Sumatra was chosen for the company's activities. This American corporation has established there the largest single rubber plantation in existence. The tract contains more than 70 square miles of trees in a high state of cultivation and close to twenty thousand employees are at work in the great orchard. The high standards of administration and scientific culture which have marked this project have implanted in the minds of the dwellers in that fair eastern clime a thoroughgoing respect for American efficiency.

While the nine million cars of this continent skim along on their tires made of plantation rubber, one cannot but pause to wonder again at the curious coincidence that has made it possible to furnish in abundance the necessary rubber.

Few of the planters who embarked in the early days on the plantations venture had even heard of the automobile, when they set out their trees. Those who had kept in touch with affairs in England might have heard of the horseless carriage preceded by a man on foot carrying a red flag as a danger signal, but none of them realized that this object of England's merriment was the forerunner of the great automobile industry of today.

How Plantations have grown

By the end of 1907 only about 1½ per cent of the world's rubber had been produced from plantation rubber. At that time, about \$1.00 per pound was secured for this rubber at the plantations, which was considered a satisfactory price. By 1910 the price had risen to \$2.50 per pound and a great boom was created in plantations. The present area of rubber plantations of all kinds is estimated at nearly 2,000,000 acres and new areas are being constantly planted. The soil and climate of the Far East seem to be peculiarly suited to the successful growing of the Para rubber in plantations.

There are said to be over \$400,000,000 invested in rubber plantations and they supplied in 1919 about 83 per cent of the total world's requirements.

How rubber is tapped

The methods of tapping and reducing the latex have been greatly improved over the systems in vogue with wild rubber, although it cannot be said that they have reached a finality of development. A common method is to make a series of V-shaped incisions on four sides of the tree up to a height of 5 to 7 ft. from the ground. The latex is collected in a cup hung at the apex of each V. The "herring bone" plan with a vertical incision and lateral channels on either side is used as well as the spiral system. Daily incisions are made at 45° until the trunk is nearly covered with scars. When the bark of the trunk is almost completely covered with cuts to induce the flow of latex, a period of years is generally allowed to elapse before beginning to retap the tree. Small sharp knives are employed in making the incisions instead of the axes or large cutters used in Brazil.

Instead of the primitive and wasteful method of reducing the latex of crude rubber, as followed in the forests of Brazil, the fluid is collected in large tanks or casks. It is coagulated by the admixture of an acid, usually acetic acid or lime juice. The coagulation gradually separates as a soft, white, or yellowish mass. This is washed by first passing through washing machines, and then through other machines, which compress it in thin sheets or long ribbons called crepe. These are hung up and dried. Plantation rubber enters the market either in the form of crepe in sheets or biscuits or in the form of large blocks made by compressing the sheets of crepe together.