many more. Altogether, these storage places could house more than five million bags of coffee at one time.

Modern loading machinery is in use, and a ship, pausing at the Santos wharves for 24 hours, can receive an astounding amount of coffee in this short period. A typical loading scene would disclose five belt conveyors, three electric cranes and five lines of laborers pouring continuous streams of burlap bags into a single vessel's hold. While they work their supplies are built up by countless carts and wagons drawn by oxen, horses, mules and donkeys—transferring the bulging sacks from distant warehouses.

The docks can accommodate about 50 ocean steamers at one time. The machinery is nearly all electrically driven and is the most modern obtainable. The euipment for loading coffee is unqualed in any other part of the world. From scores of great warehouses, in which are neatly stacked a total of from 2,000,000 to 5,000,000 bags of coffee, the sacks are transported by long trains of automobile trucks or mule carts to the dock yards.

There the bags are dropped from the trucks and carts through manholes in the street, which lead to a partly underground system of endless rubber belts. When a bag of coffee falls on one of these belts, it is carried to another belt running at right angles to the first, and so on, until it is dropped into the hold of the ship itself, without having been handled by man since leaving the wagon on which it arrived at the wharves. Several thousand bags of coffee an hour can thus be loaded on a vessel with a minimum of labor.

The Santos wharves are along an estuary five miles from the Bay of Santos, and in reaching them a steamer winds about, directing its prow to every point on the compass. From the stream stretches the plain on which the city is built, with miniature mountains rising from it at intervals.

The chief height is Monte Serrat, from the sides of which several years ago a destructive landslide came. This little mountain rises virtually from the heart of the city to a height of 700 feet. The peak affords a splendid view of Santos and the sea. In recent years a funicular railway has been built up the slope and an amusement casino established near the top. On the crest is a famous shrine to Our Lady of Monte Serrat, and nearby is a wire-less tower.

## SANTOS COFFEE EXCHANGE

The Bolsa Official do Cafe of Santos is the most impressive temple in stone dedicated to a purely commercial industry that we know of. Its interior suggests nothing so much as some Old World church, like the cathedral at Milan, or even St. Peter's at Rome; only its stained glass, its paint-



RAIL AND MOTOR ROADWAYS BETWEEN SANTOS AND

Upper—Alto da Serra rest house on the motor road. Lenter—Power station and viaduct, São Paulo Railroad. ings, its main arcihitectural features, its columns, inlaid marble floors, furniture, and fixtures are distinctly modern.

The president and other officers sit on a dais at one end. Around the big hall in two semicircles of high-backed chairs are seated the members, each with his own small round-topped table before him. A meeting of the Bolsa is a dignified event.

The Bolsa is probably one of the best organized and safest institutions of the kind in the commercial world. Sanctioned in 1914 by the state of São Paulo, and finally effective in 1917, its career from the start has been remarkably successful, especially in view of the chaotic conditions previously existing so far as future sales of coffee were concerned in the Santos market.

In the first place, the Bolsa do Cafe is a stock corporation and the government of São Paulo is liable for 40 per cent of its liquidating commitments. Every broker operating on the exchange must be licensed by the exchange, and either he or his official representative must be present at all sessions of the exchange. No broker can undertake business without depositing with the exchange a bond in money or bonds of the state of São Paulo amounting to 20 contos of reis.

This bond, or deposit, is liable for the execution and liquidation of all deals in which he is interested or any fines that may be imposed against him. It cannot be attached for any outside indebtedness in any manner, and, if for any reason his deposit is