LAS CASCADAS

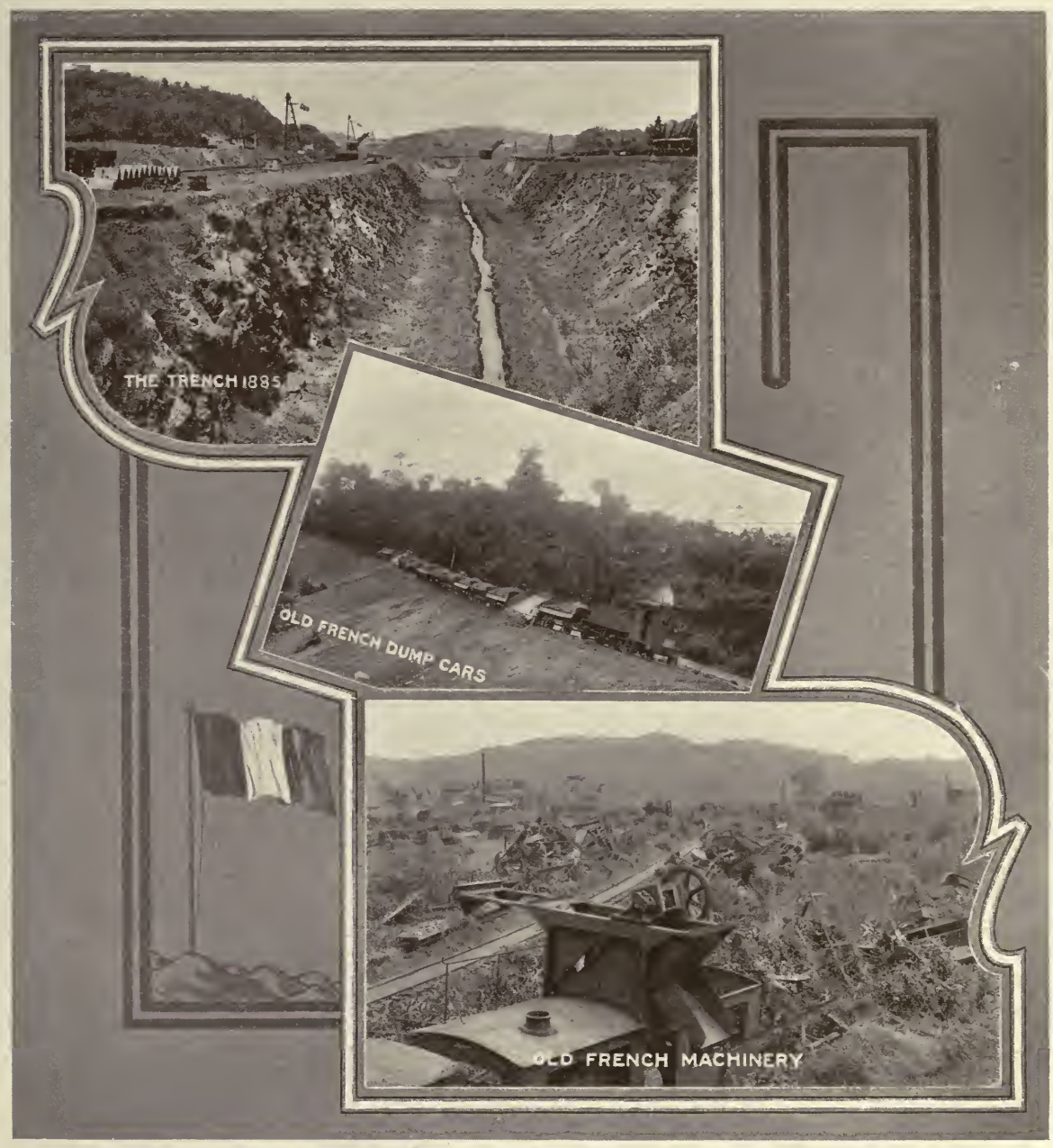
This is one of the prettily situated villages of the Zone. It is mainly important as the headquarters of a great number of the "gold" employees in the Central Division transportation service, and contains a large engine house and yard, commonly known as the "Whitehouse" yard. The scene each morning and evening as the 75, or more, locomotives depart for, or arrive from their work, is a lively one.

The village of Empire in the old French days. The French began their first excavation in the cut at this point in 1882.

Canal between Empire and Culebra showing the French method of excavation, from 1888 to 1892.

The French using laborers to fill cars. Cableways, in the distance, also used for handling spoil.

Old French locomotives. One hundred and nineteen of these were rebuilt and used by the Americans.

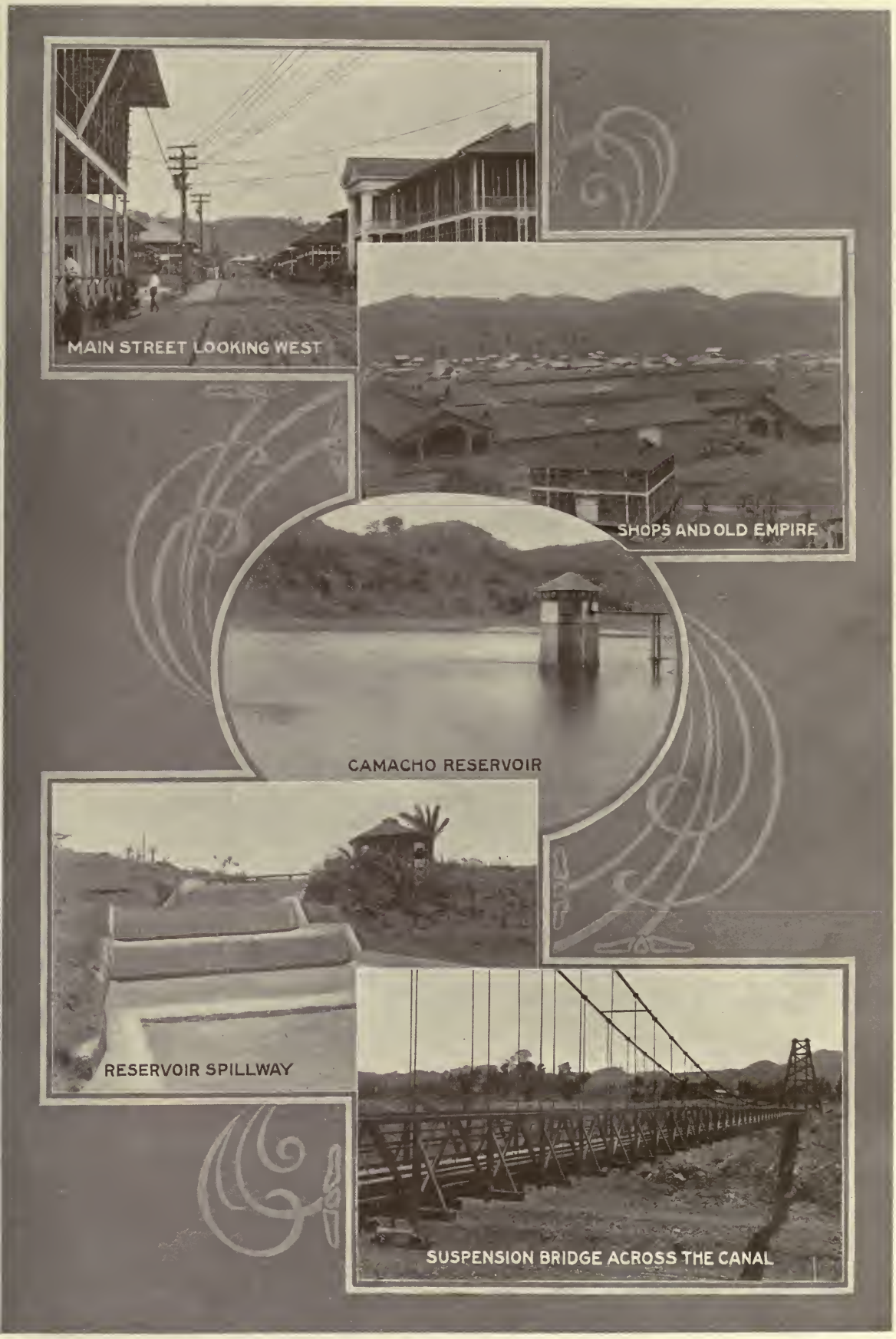


The trench at Empire in 1885. Opening the pioneer cut by the second French Company. The style of cableways shown are now used by the Americans in placing concrete. Steel dump cars, 18 feet long, were used exclusively. The cars dumped on one side only, and were too small for economical use. Most of these were scrapped by the Americans.

The canal looking North from the Division Engineer's office.

The canal looking South from the same point.

Here begins the real work of excavation; here the steam shovel is king; and one realizes that it isn't men but mammoth machinery that is solving the problem of digging the canal.

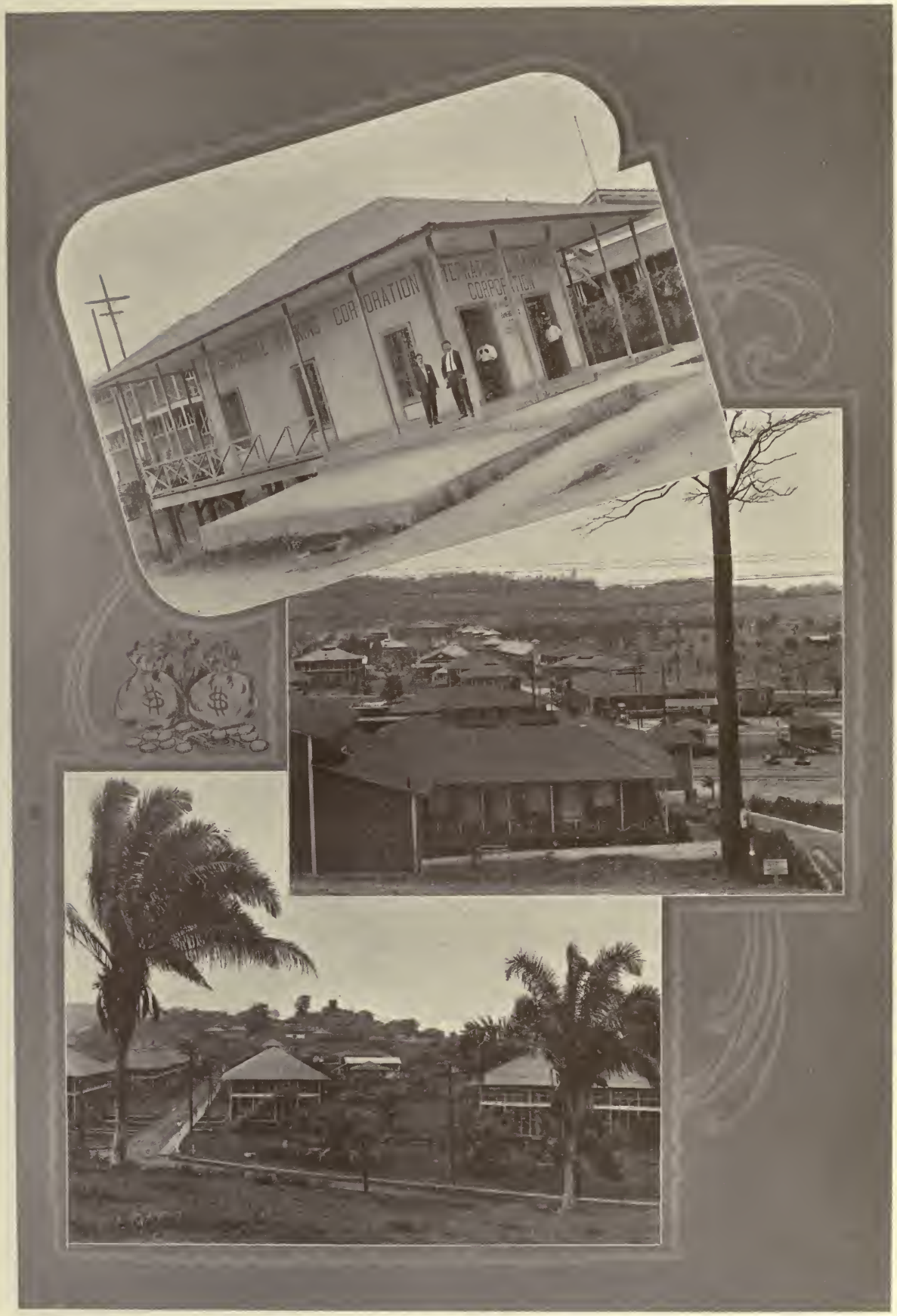


Views in and around Empire, including the shops, which are the second largest on the Isthmus. Here all repairs, except ordinary field repairs, are made to the steam shovel equipment used in all three engineering divisions and the Panama Railroad.

This is the headquarters of the Central Division Engineer. Some idea of the magnitude of the operations r be formed from the fact that this division has within its jurisdiction over 200 miles of 5-foot-gauge-track laid, al 55 miles of which are within the side slopes of Culebra Cut alone. The offices of the Disbursing Officer and Exam of Accounts are also located here.

The United States possesses all authority over the Canal Zone, policing the territory and holding complete judicial power. Offenders are subject to Canal Zone laws, modelled after those of the United States. Resident judges preside.

In the group is shown the opening game at the Empire Athletic Park, the first ball park established in the Canal Zone. The game was played between Empire and I. C. C. teams. Former Chief Engineer John F. Stevens throwing the first ball. Field day events are frequently held in this Park under the auspices of the Y. M. C. A.



Empire branch of the International Banking Corporation.

Looking West from the hill on which is located the Central Division offices. In the foreground is shown a lignum-vitæ tree—a very hard and heavy wood.

Looking East from the offices of Disbursing Officer and Examiner of Accounts.

In the center of the cut at the end of the first French Company's days, 1889.

A French excavator opening a pioneer trench in the south end of the cut. This was the best known method of excavating in that day.

The First French Company operated from 1881 to 1889. Then there were five years of liquidation. The Second French Company operated from 1894 to 1904. On April 23, 1904, the United States made the memorable purchase at $40,000,000, and on May 4, 1904, the property was turned over to the Americans.

The First French Company operating. Old Culebra is shown on the left hand side. The old Panama Railroad was on the left bank. This spot is now the approximate center line of the canal.

The French at work in the canal at Cucaracha, 1885, just around the point from Gold Hill.

Looking South in the Second French Company's days. This is directly opposite the present I. C. C. Clubhouse. The long house shown on the left is now at the edge of the cut.

The valley of the Rio Grande in the French days. The present canal site is between the hills. The old Panama Railroad bridge is shown at the south end of the cut.

The cut in 1890. Contractor's Hill on the right; Gold Hill on the left. Note the succession of benches, lying one above the other. The Americans have followed this same method in excavating.

Culebra cut in the earliest times of the Second French Company, 1895.

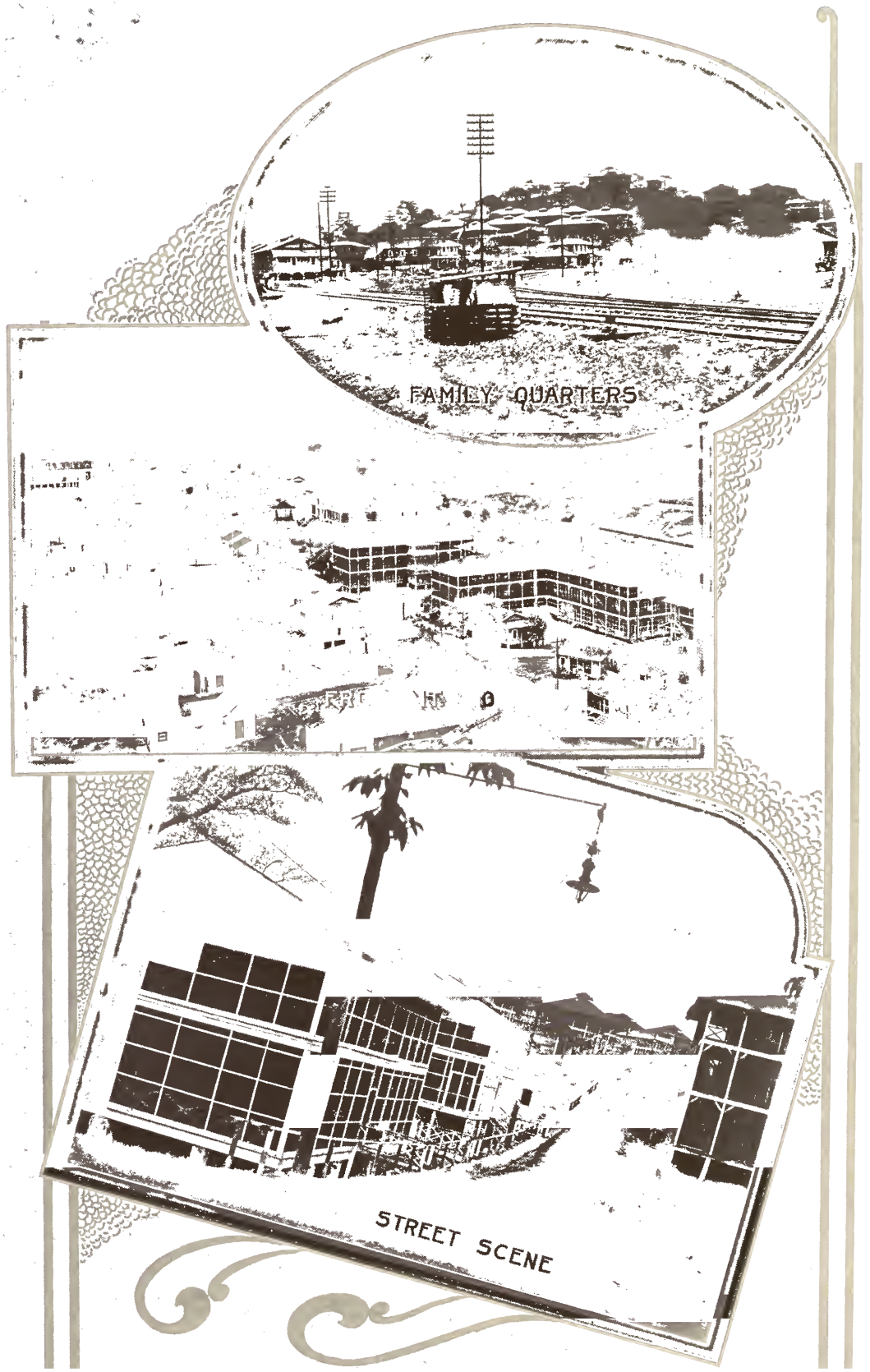
:-: CULEBRA :-:

Culebra Cut looking South, 1911.

Culebra Cut looking North, 1911.

This is the most formidable part of the enterprise on account of the magnitude of the cutting, and also because of the difficulties attending it, due to the excessive rainfall and to the varying character of the materials encountered. The width of the channel adopted by the French was 74 feet; the American plan is 300 feet at the bottom.

The Administration Building is the engineering headquarters on the Isthmus and contains the various general offices. The residence of the Chief Engineer occupies a site near the Administration Building. Motor cars are used by the heads of the engineering divisions to reach different parts of the work. There are five of them on the Isthmus.



In all towns under the jurisdiction of the United States the American employees dwell in modern houses, a great many of which are situated on hills, approached by macadamized roads.