



Scene Along Waimea River, Kauai.

a moment, a saving of time which plantation managers are quick to appreciate.

Gregg patent ties are in use on all the islands, and the simplicity and effectiveness of the splice shoes which connect sections of portable track make them in great demand. Galvanized ties, which resist the weather better than the old style ones, are coming into extensive use.

Another specialty of The Gregg Company is the all steel frame car for use on narrow gauge railroads and plantations. These cars range from 2 to 3 tons capacity, and on account of their strength, lightness and long life, they have given complete satisfaction wherever used.

Of all the labor saving devices which The Gregg Company has produced, one of the most important is the Gregg cane car unloader, a device for unloading cane from the car into the carrier. The first machine of this kind used in Hawaii was installed by Mr. Gregg at Ewa Plantation. It was a success from the start, and now all the larger plantations use them.

The "Gregg Cane-Unloader" consists of triangles of steel, around which belts of mal-

leable links travel, every third link being made with a tooth. The number of triangles used depends on the length of the car, four triangles placed equal distances apart being considered about the best combination for a car ten feet long, inside measurement. The triangles for unloading one car are moved up and down in unison by the operator, who stands on a platform just above it, where he works a wheel not unlike a ship's pilot wheel.

The process of unloading a car with the "Gregg" Unloader is as follows: The triangles are raised to a height sufficient to allow a loaded car to be run under them and then lowered until the teeth of the chain come in contact with the cane. As the pile on the car becomes lower, the set of triangles is lowered until the car is entirely cleaned, the triangles being so constructed that when at the lowest point the under side of each set is horizontal, and parallel with the car floor. Counter weights, connected by wire ropes, balance the control of the operator's hand wheel.

The unloader is operated by a small steam engine connected by belt with an overhead shaft, to which the triangles are hung.

sists in the main of two, 32x66 three-roll mills, crusher, cane carrier, National shredder, two vacuum pans, eleven Scotch centrifugals, one Honolulu triple-effect open clarifiers, three automatic fed boilers, an electric light plant and much other machinery. The blacksmith, carpenter and machine shops are in nearby buildings.

**Good School.**

An excellent school is conducted by the Territory, while the plantation has built a Japanese school building on its property for the benefit of the Japanese children.

The manager of this large plantation is

J. R. Myers, who has had seventeen years experience in the sugar industry on Maui and Kauai and for two years before taking charge of Kilauea, was head luna for the same.

Mr. Myers' staff of employes is as follows:

Head Overseer, Henry Birkmyre; Chief Mill Engineer, Claude White; Bookkeeper, L. B. Boreiko; Assistant Bookkeeper, Jos. S. Iida; Timekeeper, A. Ohrtmann; Sugar Boiler, C. Calvert; Carpenter, Robert Scott; Blacksmith, James Edwards; Physician, K. Yanagihara.

Honolulu Agents, Wm. G. Irwin & Co., Ltd.

## KILAUEA SUGAR PLANTATION CO.

Where Long Service Demonstrates Permanent Character of Portuguese Immigration.

**K**ILAUEA plantation has the enviable reputation of having a good number of Portuguese workmen who have been with the plantation for twenty-seven years.

This is an evidence of the permanent character of the European immigrant as a settler, as well as adding to the good name of the plantation for the treatment of its employes.

Sugar cane was first planted at Kilauea, in the Hanalei District, Kauai, by Edward P.

mountain streams near the watershed to the five plantation reservoirs, the areas of which are as follows: 36 acres; 18 acres; 4 acres 8 acres and 30 acres.

Cane is transported to the mill by four locomotives and 200 cane cars running upon 12½ miles of permanent and five miles of 24-inch gauge portable trackage. The capacity of the cane cars is two and one-half tons each. Six sugar cars are used also. The railroad extends to the plantation landing at Kahili, which is three miles below the mill. Freight is worked at the landing by means of wire cables, which are able to load 800 bags of sugar aboard a vessel in one hour. Two of the locomotives are of the Baldwin make, while one was made in Germany and the other in England.

The soil of the plantation lands at Pila, Molooa, Kilauea and Kallhi-wai is deep and is a black and red clay. Fertilization is carried on, 1000 pounds of special high-grade fertilizer being used to an acre of land. The Company owns a portion of the land in fee simple while the remainder is leased from private owners under long leases.

**Crop for 1909.**

The sugar output for 1908 was 3,218 tons the estimate for 1909 is 5000 tons.

There are 125 head of horses, 700 head of cattle and 48 mules upon the plantation property.

**Cosmopolitan Labor.**

The laborers are a cosmopolitan crowd, there are, 415 Japanese, 65 Portuguese, 8 Porto Ricans, 52 Koreans, 36 Chinese, 13 Spaniards and 16 Hawaiians, besides a few other nationalities.

**Twenty-seven Years.**

Some of the Portuguese have been working for the plantation continuously for twenty-seven years. The climate at Kilauea is cool being adapted for laborers as the rainfall of 70 inches per year, along with other conditions, tends to keep the residents in good health.

The plantation labor quarters are admirably situated, being supplied with pure water, cleanly bathing tanks, large cooking ranges and many other convenient arrangements that are unknown to laborers upon some sugar plantations. The laborers grow fruits and vegetables for home consumption while fresh fish and meat are nearly always obtainable.

The mill, which is an old one, was supplied by Mirrless, Tait & Watson, and con-



Sugar Cane of Yellow Caledonia Variety.

## KEKAHA SUGAR CO., LTD.

Where New Irrigation Ditch Has Brought New Lands Under Cultivation.

**C**ONSTRUCTION of a new irrigating ditch and development of water supply from the headquarters of the Waimea stream has enabled the Kekaha plantation to bring many hundreds of acres under cultivation that have hitherto been arid areas.

This plantation depends entirely on water either pumped or brought to the land through ditches. It has four Risdon pumping stations with an average daily output of 22,000,000 gallons which are however used very little since the new ditch from the upper Waimea stream giving eighteen to twenty million gallons a day has been completed.

This ditch water is also turned to further use of developing electrical power to operate centrifugal pumps which are pumping water from the new ditch to a higher elevation of 300 feet.

In consequence of this ditch system, cane is now planted at elevations ranging from nine to seven hundred and fifty feet.

The Kekaha Sugar Company's estate consists of Territorial and former Crown land leaseholds under sub-lease from the Knudsen Estate upon shares. It extends from

Kekaha to Pohale, a distance of twelve miles, varying in width from a few hundred feet to three-quarters of a mile. This plantation ranks as one of the prosperous properties on the Island of Kauai.

The first cane was planted on these lands by Capt. C. L'Orange in 1878 and was all of the Lahaina variety. In 1880 A. Faye and W. Meyer bought L'Orange out and harvested the first crop. H. P. Faye, the present manager, began planting in 1884 at Mana, where the most extensive portion of the present Company's holdings are now situated.

The Kekaha Sugar Company, Limited, was formed in 1898 and now controls an area of about 3500 acres, nearly all of which is planted in Lahaina cane. Several hundred acres have been planted this year on the hills above the plantation.

**1908 Crop.**

The 1908 crop was from 1575 acres of cane mostly ratoon, the total sugar output being 9015 tons.

Cane from the higher elevation will be transported by flume to several railroad stations, where it is dropped directly upon the



J. R. MYERS, Manager of Kilauea Plantation, Kauai.

Adams in 1877, and by Capt. John Ross. Later Adams bought Captain Ross out and finally sold out entirely to the Kilauea Sugar Co., Ltd., a Hawaiian corporation. The latter disincorporated and re-incorporated in California.

In 1908 the plantation comprised 3,625 acres of cane land, 3,308 acres of pasture land and 5,730 acres forest land. Of the cane land, for 1909 crop, 800 acres is plant and 900 acres ratoon.

Yellow Caledonia is planted almost exclusively, the experiments with Lahaina in this district not proving satisfactory. Cane is planted at elevations ranging from 200 to 500 feet.

Forty-nine miles of irrigation ditches comprise the means of bringing water from the