

of the climatic belts. The fertile Gulf watershed with its many streams of pure water glittering in the golden sunlight, as they rush down from the hills into the broad rivers,* which separate the dark green jungles and immense tropical forests of wild rubber, mahogany, cacao, etc.; is in striking contrast to the narrow zone of the high lands, with its spread of short, wiry, yellow bunch grass, and dull, dry pine forests; while in still greater contrast is the third zone, with its

stantial embankments, and flimsy wooden tressels and bridges. The treacherous condition of the old road may be gathered from Mr. Whitfield's narration of personal experiences. He says:—"To show the condition of the road at that time (1899), the writer took one of the big engines, (Baldwin Mogul freight locomotive), out on a trial trip—the first over the road—and we ran off the track 26 times in 40 miles!" . . . "The locomotives were fired with wood,

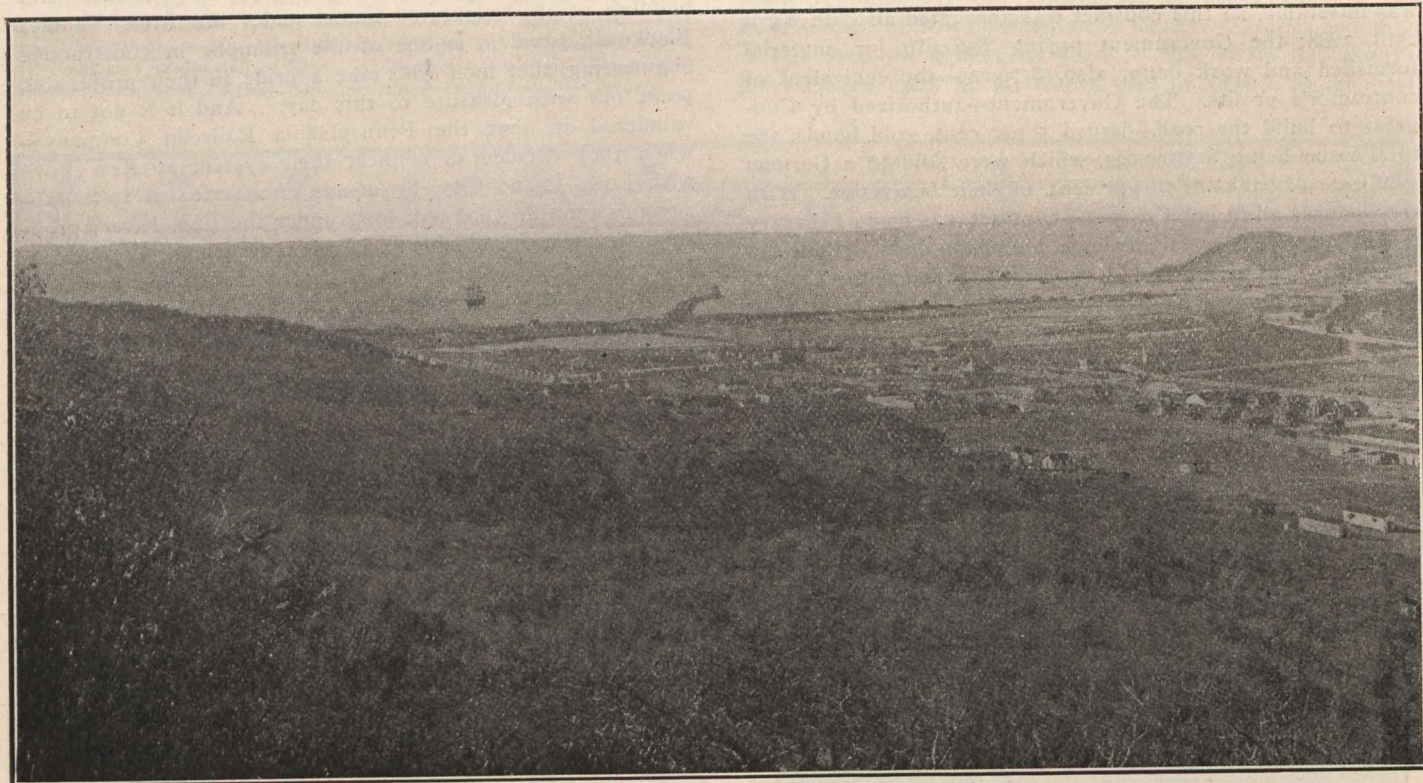


Fig. 3.—General View of the Harbor of Salina Cruz, Showing the two Breakwaters Advancing into the Ocean. Pacific Terminus.

brown, barren, rugged, shallow ravines, running down in lines from the top of the Pacific watershed for a short distance, then losing themselves in the broad, sandy desert which stretches away to the shores of the Pacific Ocean.

Such is a panoramic view of the country across which are laid the tracks of the Tehuantepec Railway.

and sometimes on a heavy grade, and owing to green fuel, we would get stalled. One Christmas Day, I lost my dinner (roast beef and plum pudding!) owing to being stalled thus in the Chivela Canyon."

The first work of Sir Weetman D. Pearson and his engineering force, consisted in tearing up by the roots,

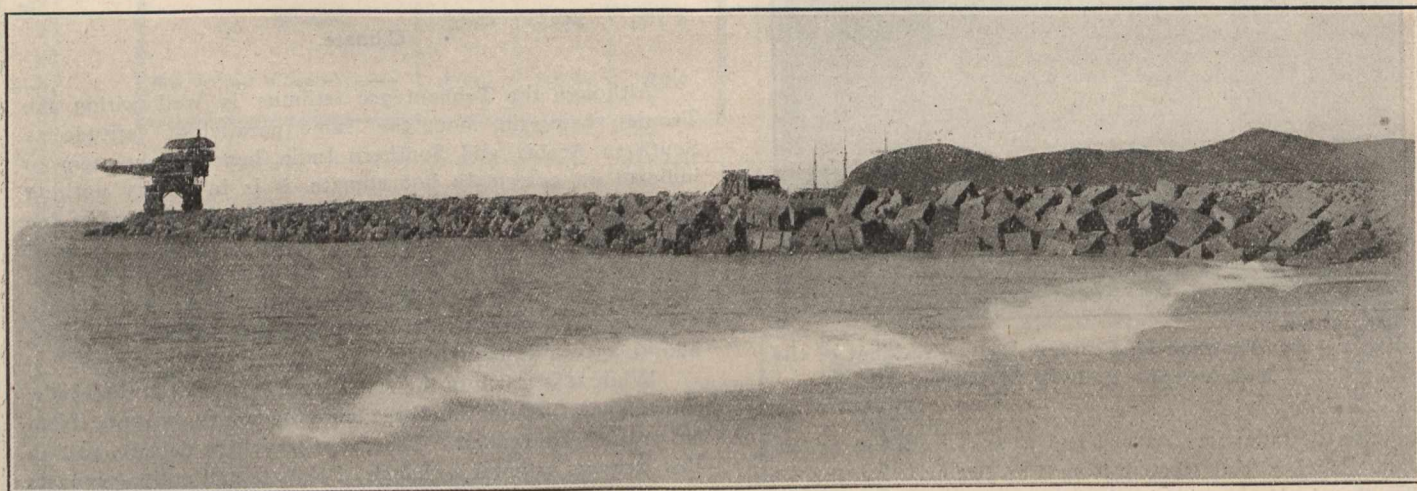


Fig. 4.—The Breakwater at Salina Cruz.

Construction and Equipment.

The reconstruction of the railway—which is 189 miles long, and of United States standard gauge, viz., 4 feet, 8½ inches—began in 1898. The light pioneer road, had undulating grades, numerous sharp curves, narrow cuttings, unsub-

stantiated the old shifty track, and ballasting 66% of the roadbed with 12 to 15 inches of crushed stone, and the remainder with gravel. Then replacing the rotten, unseasoned sleepers with ties made of American pine, California redwood, or hardwood from the Tehuantepec forests, having Servis steel tie plates and securing thereon, 80 lb. steel rails in place of the old 56 pounders. The ties were laid 13 or 14 to a rail length of 30 feet. The new grades are limited to 1.6% (compensated for curvature) and the curves to 8%, or a minimum radius of 492 feet. The only tunnel on the line is 300 feet long.

* The Coatzacoalcas river for 20 miles up from its mouth is a magnificent waterway, varying from 1-2 to 3-4 of a mile in width, and from 20 to 60 feet deep.