

have been larger and better planned. Spanish engineers, who have been waging war for thirty years past with the inhabitants of the suburbs (arrabales), have convinced the government that the houses are too near the fortifications, and that the enemy might establish himself there with impunity. But the government has not courage to demolish the suburbs, and disperse a population of 28,000 inhabitants collected in La Salud only. Since the great fire of 1802 that quarter has been considerably enlarged; barracks were at first constructed, but by degrees they have been converted into private houses. The defence of the Havannah on the west is of the highest importance: so long as the besieged are masters of the town, properly so called, and of the southern part of the bay, the Morro and La Cabaña, they are impregnable, because they can be provisioned by the Havannah, and the losses of the garrison repaired. I have heard well-informed French engineers observe, that an enemy should begin his operations by taking the town, in order to bombard the Cabaña, a strong fortress, but where the garrison, shut up in the casemates, could not long resist the insalubrity of the climate. The English took the Morro without being masters of the Havannah; but the Cabaña and the Fort No. 4, which commands the Morro did not then exist. The most important works on the south and west, are the Castillos de Atares y del Principe, and the battery of Santa Clara.

We employed the months of December, January, and February, in making observations in the vicinity of the Havannah and the fine plains of Guines. We experienced, in the family of Señor Cuesta (who then formed with Señor Santa Maria, one of the greatest commercial houses in America), and in the house of Count O'Reilly, the most generous hospitality. We lived with the former, and deposited our collections and instruments in the spacious hotel of Count O'Reilly, where the terraces favoured our astronomical observations. The longitude of the Havannah was at this period more than one fifth of a degree uncertain.* It had been fixed by M. Espinosa, the learned

* I also fixed, by direct observations, several positions in the interior of the island of Cuba: viz. Rio Blanco, a plantation of Count Jaruco y Mopex;