## APPENDIX.

combined) a useful article in getting to the summit. From Pelado the course to Flaminco will be W. by N. (magnetic), forty-seven miles distant. This part is equally free from hidden dangers as the foregoing; the lead and a commonly decent look-out will amply suffice; the northern shore is shallow and must not be approached too elosely, but the lead points this out far better than any description, as the shoaling is very gradual. Chepillo Island, and tree on the north shore, will be remarked, and if approaching the Pearl Islands the small isle of San Bartolomé between the bright silvery beaches of Taboga, Pacheque and Contadora Islands will be remarked as solely covered with palmtrees, the appearance of which, unmixed with any other, I do not remember in any other spot. Cabrera, with its three peaks; Taboga, for which it is sometimes mistaken, from its also having three peaks; lastly Flamineo, Ancon, and the towers of the eathedral, rise to view, and you may anchor as convenient off Perico and Flamineo Islands, in 6 or 7 fathoms, or go nearer the town in  $3\frac{1}{2}$  and 4 fathoms, being however careful to avoid the Baja d'Afuera, the marks for avoiding which are as follows :- Centre of Portola Island on with San Jose (N. 38° E., magnetic) leads to the eastward of it three-quarters of a mile. Centre of Portola just touching the east tangent of Flaminco, leads about a cable's length to the eastward of it. The south end of Aneon Hill on with the south-east bastion of the city, clears it on the south about a cable's length. The north end of Ancon Hill on with the north-east bastion, leads a quarter of a mile of it. The south end of Aneon Hill on with the inner part of the north-west bastion, leads on the Baja d'Afuera, in its shoalest part  $1\frac{3}{4}$  fathoms at low water. The northern and highest part of Changmel on with the cast tangent of Perico Island, bearing S.W. (magnetic), leads just to the southward This rocky patch is of very small extent, and is said to of the shoal. have at lowest spring-tides only  $1\frac{3}{4}$  fathoms. I sounded all round and had great difficulty in finding it; at low water, neap-tides, we had 2 and 21, surrounded by 31 and 4 fathoms on all sides.

Bearings of anchorage at Panama:  $-3\frac{1}{2}$  to  $3\frac{3}{4}$  fathoms (lowest springs); Uraba Peak on with San Jose, S. 5° W. (magnetic); Bruja Point on with the west tangent of Nao Island S. 47° W. (magnetic); Venado Isle on with Punta Bruja.

Bearings of anchorage off Flamineo Island :---6 fathoms (lowest springs); cast tangent of Taboguilla on with or open of the west tangent of San Jose Rock, and the north end of Changmel midway between Flamineo and Perico; San Jose Rock S. 13° E.