DESCRIPTION of several POINTS which serve as LAND-MARKS for Navigating the Channel of the Harbour of PORTO RICO.

A. Western extremity of the Ditch of the Morro on the irregular.
B. The only Watch Tower or Turret appearing on the South side of the Morro.
C. South Angle of St. Jaime's Battery.
D. Angle of the Corps de Garde of St. Jaime Battery.
E. Watch Turret of the Powder Magazine next to R. Jaime Battery.
F. Western Watch Turret of St. Augustine's Battery.
G. Watch Turret on the Wall of the parade near the Fortress or Gun-emount Tower.
H. Eastern Angle of the House adjoining the Fortress.
I. Angle of the Park of Artillery, very noticeable new building.
K. Watch Turret on the Wall on the West side near St. Justo Gate.
L. Watch turret on the Wall on the East side and near the same Gate.
M. Custom House, where the Longitude was determined by Observation.
N. St. Juhas Gate.
* The House used as an Observatory.

SITUATION of the SHOALS.

St. Helena Shoal lies at the intersection of the two following Bearings viz. A is a line with B; and H is a line with I; on this spot there are nearly three Spanish Fathoms Water or about 15 Fathoms English.— St. Augustine's Shoal is situated at the intersection of the Bearings C is a line with B, and the North East angle or the Guinche upon the South end of the Island, close under the Point or Sallinas of the Fortress.—Tabinas Shoal lies at the junction of the Bearings D upon B, and K upon L.— La Punilla (the Little Point) Shoal lies at the intersection of E with B, and the Powder Magazine of Alcornoque a little open to the Northward of Punta Larga.

Punta Larga (Long Point) Shoal is situated at the intersection of G with E, and the Magazine of Alcornoque not appearing on the North side of Punta Larga.

NOTE.

The soundings taken at Low Water, show the number of Spanish Brazas *or Fathoms containing each two* Varas *or Yards Castile measure, and nearly equal to a foot of Anchor English.*

On the New and Full Moon it is high water at 8h 30' in the morning, and the greatest rise is nearly equal to 11 feet English.

GEOMETRICAL PLAN
of the
PRINCIPAL HARBOUR
in the
ISLAND OF PORTO RICO;
Surveyed in 1794, by
DON COSME DE CHURRUCA,
Captain in the Spanish Navy.

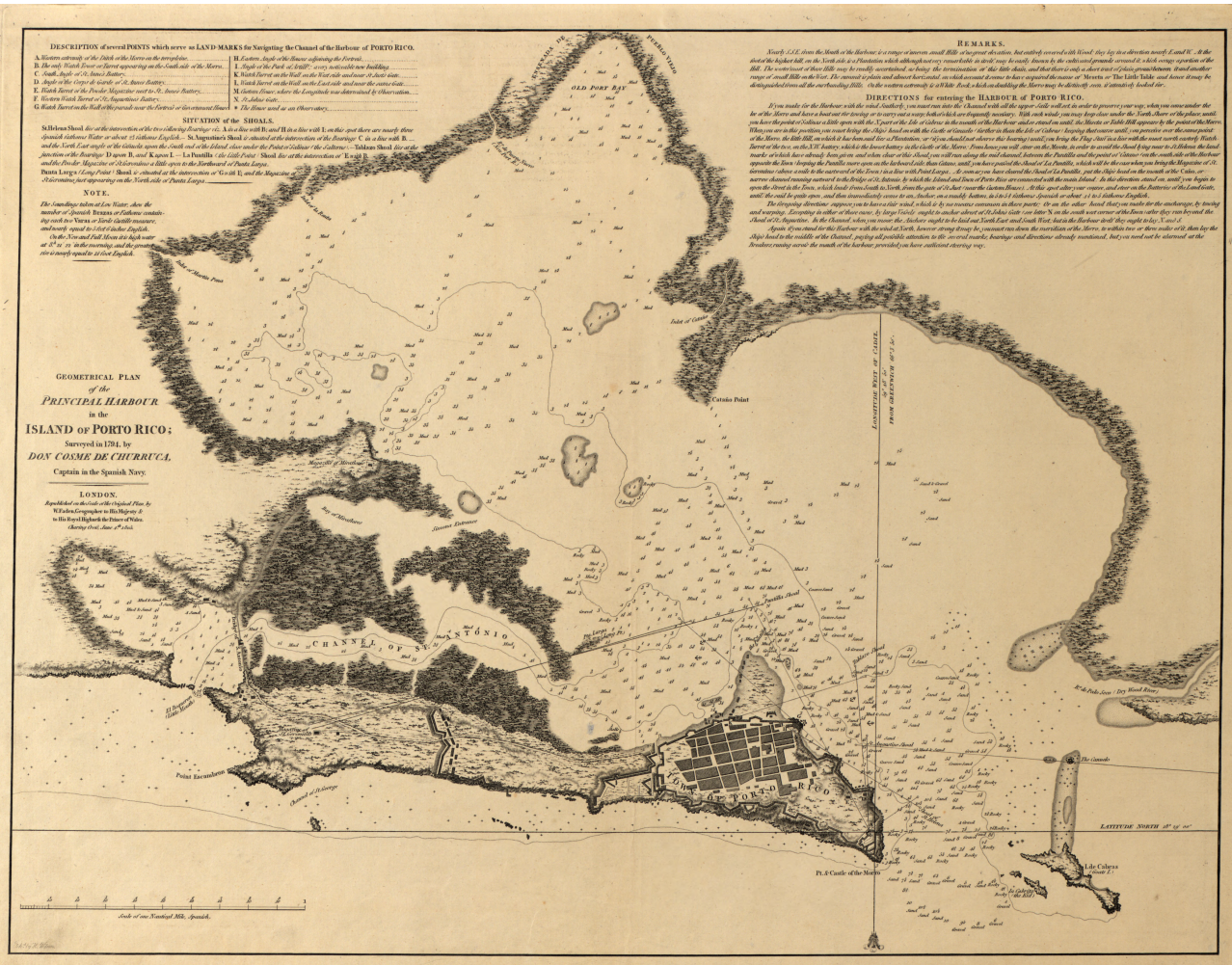
LONDON.
Republished on the scale of the Original Plan by
W. Faden, Geographer to His Majesty &
to His Royal Highness the Prince of Wales.
Charing Cross, June 1st 1816.

REMARKS.

Nearly E.S.E. from the Mouth of the Harbour is a range of uneven small Hills of no great elevation, but entirely covered with Wood; they lay in a direction nearly E and W. At the foot of the higher hill, on the North side is a Plantation which although not very remarkable in itself may be easily known by the cultivated ground around it which occupies a portion of the Hill. The western foot of these Hills may be readily ascertained as being the termination of the little shoals, and that there is only a short space of plain, gradually rising from another range of small Hills on the West. The general plain and almost horizontal, on which account it seems to have acquired the name of Mesets *or* The Little Table *and hence it may be distinguished from all the surrounding Hills. On the western extremity is a White Rock which on doubling the Morro may be distinctly seen, if attentively looked for.*

DIRECTIONS for entering the HARBOUR of PORTO RICO.

If you make for the Harbour with the wind Southerly, you must run into the Channel with all the upper Sails well set, in order to preserve your way; when you come under the lee of the Morro and have a boat out for towing or to carry out a warp, both of which are frequently necessary. With such winds you may keep close under the North Shore of the place, until you have the point of Sallinas a little open with the 3 quart of the Isle of Cabras; in the mouth of the Harbour and so stand on until the Mesets or Table Hill appears by the point of the Morro. When you are in this position, you must bring the Ships head on with the Castle of Guinche farther in than the Isle of Cabras; keeping that course until, you perceive over the same point of the Morro, the little Hill, on which it has been said lies a Plantation, or Ajon, should not observe the bearings (until you bring the Ship, just in a line with the most north easterly Watch Turret of the two, on the XII battery, which is the lowest battery in the Castle of the Morro. From hence you will steer on the Moorings, in order to avoid the Shoal being near to St. Helena the land mark or which have already been given and when clear of this Shoal, you will run along the mid channel, between the Punilla and the point or Cutano on the south side of the Harbour opposite the town; keeping the Punilla more open on the larboard side than Cutano, until you have passed the Shoal of La Punilla, which will be the case when you bring the Magazine of St. Germano (above a mile to the eastward of the Town) in a line with Point Larga. As soon as you have cleared the Shoal of La Punilla, put the Ships head on the mouth of the Calas, or narrow channel running eastward to the Bridge of St. Antonio, by which the Island and Town of Porto Rico are connected with the main Island. In the direction stand on, until you begin to open the Street in the Town, which leads from South to North, from the gate of St. Juat near the Custom House: At this spot alter your course, and steer on the Batteries of the Land Gate, until the mud be quite open, and then immediately come to an Anchor, on a muddy bottom, in 3 to 4 fathoms Spanish or about 15 to 8 fathoms English.

The foregoing directions suppose you to have a fair wind, which is by no means common in these parts: On the other hand that you make for the anchorage, by towing and warping. Excepting in either of these cases, by large Vessels ought to anchor about St. Juhas Gate (see letter N on the south west corner of the Town) rather they run beyond the Shoal of St. Augustine. In the Channel when you moor the Anchors ought to be laid out North East and South West, but in the Harbour drift they ought to lay N and S.

Again if you stand for this Harbour with the wind N. however strong it may be, you must run down the meridian of the Morro, to within two or three miles of it, then lay the Ships head to the middle of the Channel, paying all possible attention to the several marks, bearings and directions already mentioned, but you need not be alarmed at the breakers running across the mouth of the harbour provided you have sufficient steering way.