

of the surface was  $61^{\circ}5$ , and at 5 P.M. anchored off Kobé in 5 fathoms, with Hiogo Tower S.  $22^{\circ}$  W., Kawa Saki Tower S.  $50^{\circ}$  W., Pier End N.  $42^{\circ}$  W., and Kobé Point N.  $45^{\circ}$  E.

The vessel remained at Kobé until the 25th May in order to allow members of the Expedition time for a visit to Kioto (or Miako), the western capital of Japan, and old residence of the Mikados, where an exhibition of Japanese workmanship was then being held.

The steam pinnace was engaged several days dredging in shallow water off Kobé.

On the 25th, at 10.30 A.M., the Challenger left Kobé for a cruise in the Inland Sea. At 1 P.M. Matsu-wo-ga-hana, the north point of Awadji Island, was passed, and a course shaped as requisite to pass through Akashi Strait, keeping the right extremity of End Hill in line with the lighthouse, a most excellent mark. After passing Shika-no-se the ship was steered for the left extremity of Sozu Sima and anchored on the south side of that island at 7 P.M. off Sakate, with Ukado Point  $93^{\circ} 30'$  Small Fukube Island  $30^{\circ} 40'$  Dyizo Hana.

On the 26th, at 6 A.M., the ship proceeded under steam for Miwara, at 9 A.M. passed Odutsi Island, and at 9.40 A.M. Nabe Sima lighthouse. At 11.20 A.M. a trawling was taken in 15 fathoms, with the left extremity of Sanagi Sima  $58^{\circ} 40'$  the right extremity of Nezumi Sima  $120^{\circ} 0'$  Akeno Misaki. At 11.45 A.M. the vessel proceeded again towards Miwara, and at 0.40 P.M. a trawling was obtained with Mutsu Sima N.  $63^{\circ}$  E., Udsi Sima N.  $4^{\circ}$  W., Ibuki Sima S.  $12^{\circ}$  E. At 1.30 P.M. the trawl was hove up, and the ship proceeded for Miwara, anchoring there at 4.15 P.M. in 14 fathoms with the following anchorage marks:—

431 feet hill, Iwashi Sima,  $58^{\circ} 0'$  apex Sukune Sima in line with Guize Yama,  $54^{\circ} 0'$  right extremity Ko Saki Sima.

The following leading marks were found useful in passing through the different channels:—

The south point of Kasiva, in line with the north point of Oki Sima, clears the shoal patch between Oki Sima and Okabula.

Avari Sima, in line with the south point of Kasiva, just clears the Galatea Bank, but a better mark is the south point of Té Sima, in line with the south point of Kasiva.

The south point of Ko Sima in line with the north point of Oki Sima clears the Maka Se.

After passing Nabé Sima light, Ko Sei Sima kept open north of Sunmen Sima until the 10 feet rock is in line with the north point of Takami, clears the Three Rocks spit and the rocky knolls north of Usu Sima. When abreast of the north point of Usu Sima, the 10 feet rock should be kept a little north of Takami to clear the rocks north of Siyako.

The peaks of Odutsi, Nabé Sima, and the north point of Usu Sima in line together and kept in transit, clears the Conqueror Bank, and leads a safe distance south of the 10 feet rock, after passing which it should be brought in line with the clump on Usu Sima, which mark leads between the banks east of Takami on the south side and off Sanagi Sima and Ko Sima on the north side of the channel.

The 27th was spent by the members of the Expedition in visiting the extensive ruins of a Daimios castle at Miwara, and visiting several points in the picturesque vicinity.