SURVEY OF A NEWLY DISCOVERED FEATURE (GENISTA BANK) OFF THE ARABIAN COAST

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While employed on convoy escort duty in 1944, H.M.S. *Genista* reported the existence of a 40-fathom bank some 13 miles south-west of Ras Sajir, on the south coast of Arabia. Fig. 1, taken from Admiralty Chart No. 3784, shows the position of the bank in relation to the land. At first glance the presence of a Sea-mount is suggested, though for lack of precise knowledge of its morphology it could, until now, be referred to only as a sea-high.

The passage of one of H.M. Surveying Ships to the Persian Gulf, however, recently afforded the Admiralty an opportunity of carrying cut a hydrographic survey of this feature. The task was performed by H.M.S. *Owen* (Lieut. Cmdr. J.T.K. Paisley, R.N.) in the space of two days, in December 1953.

The bank was found without difficulty, and a floating radar beacon was anchored approximately on its summit, in a depth of 106 fathoms. The position of the beacon was determined by celestial observations and taut wire measurements from inshore fixes. Lines of soundings were then run as shown in Fig. 3, positions being fixed by radar ranges and gyro-compass bearings of the beacon. Soundings are in fathoms, reduced approximately to the level of low water springs, and corrected for the speed of sound in sea-water, from Matthews (1939) Tables.

The survey reveals a well-defined feature, consisting of a roughly elliptical bank with a gradual slope to the eastward and with comparatively steep southern and western faces. It rises from depths of 400-500 fathoms in the north, to a least depth of 103 fathoms at the summit, and falls away to some 900 fathoms in the south.

The 40-fathom depth reported by H.M.S. *Genista* is virtually disproved, and it seems probable that the echoes also being observed and remarked on by H.M.S. *Owen*.

To consider further the nature of the feature that has now been revealed, and to apply the appropriate terminology, it is necessary to refer to Fig. 2, which shows approximate profiles along the lines AB, CD and EF. Unfortunately, there is insufficient evidence on which to extend the profiles inshore to the 100-fathom line, and in consequence the precise nature of the connection with the continental shelf is unknown. If it is assumed, however, that the sea-bed slopes down at a fairly uniform gradient from the 100-fathom line to A and E, the feature would appear to be a comparatively isolated extension of the continental shelf, and therefore not, strictly speaking, an oceanic feature. It cannot be classed as

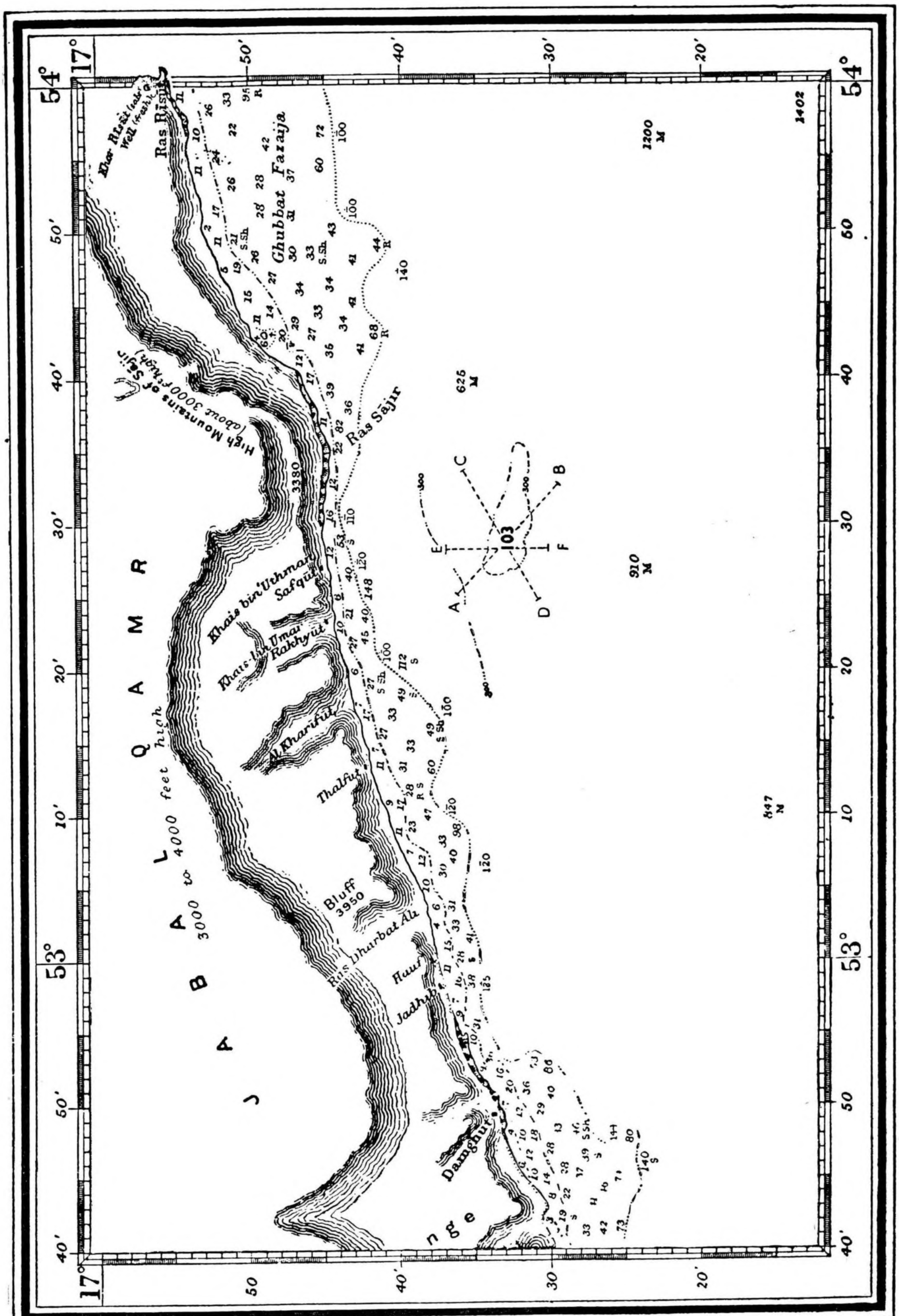
JABAL QAMR
3000 to 4000 feet high
High Mountains of Sajir (about 3000 ft high)
Ras Risut
Ghubbat Faraija
Ras Sajir
Safqut
Rakhyut
Thalfut
Bluff 3950
Damghut
Jadhib
Hauf
3380
103
A
B
C
D
E
F
54°
53°
17°

Fig. 1

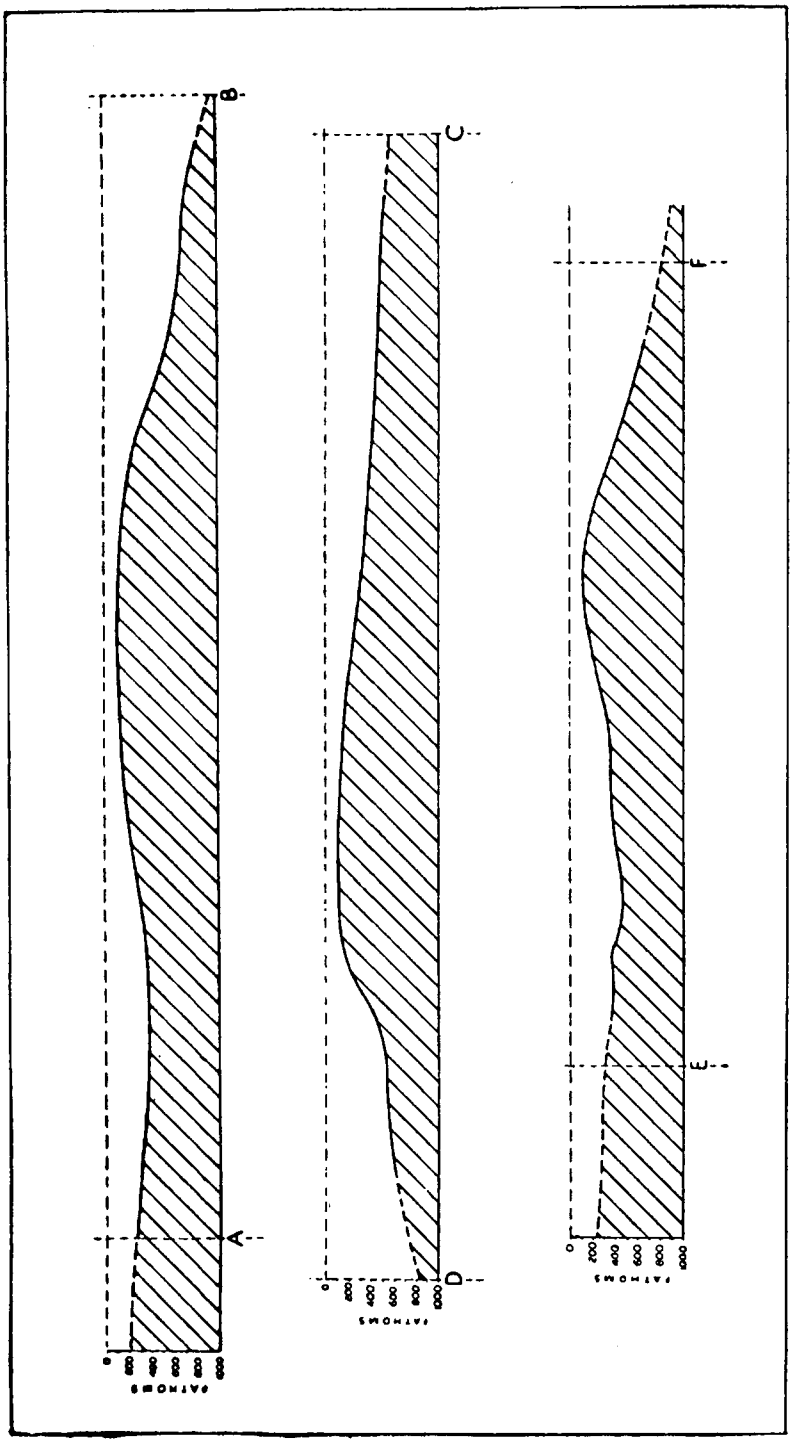

Fig. 2

a Sea-Knoll, within the definition of which it might otherwise have fallen, and the only appropriate term for its description appears to be a bank. No suitable geographical name suggests itself, and it is being proposed through the appropriate channels that the feature should henceforward be known as the « Genista Bank ».

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REFERENCE

MATTHEWS, D.J. (1939) : *Tables of Velocity of Sound in pure water and sea-water for use in echo-sounding and sound-ranging* (Tables de la vitesse du son dans l'eau douce et l'eau de mer à utiliser dans le sondage par le son et le repérage par le son) (British Admiralty Hydrographic Department — H.D. No. 282).

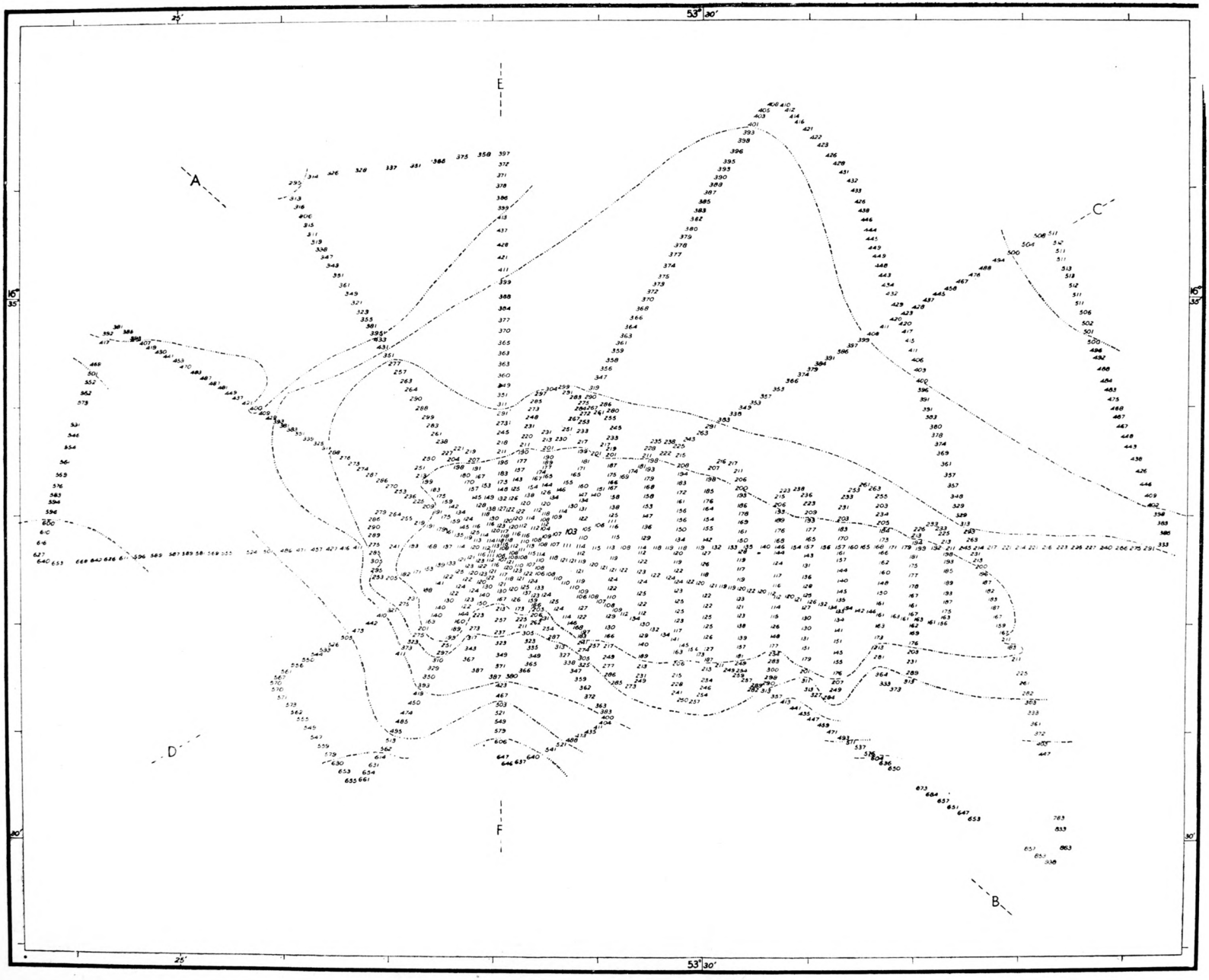

Fig. 3.