

Reviews.

G. Dietrich. "Aufbau und Dynamik des südlichen Agulhasstromgebietes."
Veröff. Inst. f. Meereskunde. N. F., Reihe A, H. 27. Berlin, 1935.

The author has collected all available hydrographic observations from the area 27° S. to 50° S. and 0° E. to 40° E., and has, before starting his analysis, carefully eliminated data which appeared to be in error. Furthermore, he has determined the annual variation of temperature at depths of 100 and 150 m. in order to reduce observations from the upper layers to the same months. His amplitude at 100 m. lies between the amplitudes which have previously been determined by other authors in other regions.

In his further discussion the author assumes conditions to be stationary, and the fact that the greater part of the observations can be combined in a clear and simple picture forms the strongest support for the correctness of this view. The few series which do not fit into the simple picture indicate that disturbances occur, some of which appear to have the character of travelling eddies which are analogous to atmospheric disturbances.

One characteristic feature of the undisturbed system is that the greater part of the water which is carried by the Agulhas Current around the southern part of South Africa bends towards the south and east and returns again to the Indian Ocean in a high latitude. Not more than one quarter of the water carried by the Agulhas Current remains in the Atlantic Ocean.

Another characteristic feature is that the Agulhas Current is caused by the arrangement of light and heavy water masses, and is not a wind-driven current. At the surface it is, of course, modified by the prevailing winds, but on the whole it is a result of the internal field of force in the sea.

These features appear to be well established although the author expresses himself with great caution and admits that very few of his conclusions are free from hypothetical elements, but he hopes that new observations may help to throw light on several of the problems dealt with.

H. U. S.

H. Thomsen. "Entstehung und Verbreitung einiger charakteristischen Wassermassen in dem Indischen und südlichen Pazifischen Ozean."
Ann. d. Hydr., usw. LXIII. Jahrg., H. 8. Berlin, 1935.

Thomsen's discussion is based principally on a study of T-S diagrams from stations in the western and northern Indian Ocean and the south-western Pacific Ocean. In the Indian Ocean Thomsen points out seven different water masses, but he deals extensively with three only: the bottom