

flashing and flag-waving, and to have a good working-knowledge of the International Code of Signals and British Signal Manual.

- (b.) He must know the general tide, bar, harbour, and storm signals to be used at all New Zealand ports, as given in the "New Zealand Nautical Almanac."

59. **Examination in Seamanship.**—In addition to the qualifications required for the grade of second mate, a mate will be required to show a knowledge of the following subjects:—

- (a.) How to moor and unmoor ship, to keep a clear anchor, and to carry out an anchor.
 (b.) The ventilation of holds and the stowage of explosives.
 (c.) How to rig a sea-anchor, and what means to employ to keep a vessel disabled or unmanageable out of the trough of the sea, and lessen her lee drift.
 (d.) How to rig purchases for getting heavy weights, anchors, machinery, &c., in or out.
 (e.) Any other questions appertaining to the duties of a mate of a home-trade vessel which the Examiner may think necessary to ask.

Master, Home Trade.

60. **Master, Home Trade*.**—A candidate must not be less than twenty-one years of age, and have served five years at sea or extended river limits, of which—

- (a.) One year must have been in a capacity not lower than that of only mate of a home-trade or coasting vessel whilst holding a mate's certificate for home-trade ships or a second mate's certificate for foreign-going vessels;
 (b.) *Or*, two years and a half must have been in a capacity not lower than second mate of a home-trade or coasting vessel *in charge of a watch* whilst holding a mate's certificate for home-trade ships, or a second mate's certificate for foreign-going vessels (see para. 115);
 (c.) *Or*, one year must have been as pilot with a first-class pilot's certificate (see para. 112);
 (d.) *Or*, one year and a half must, whilst holding the requisite certificate, have been in a capacity not lower than that of second mate of a home-trade or coasting vessel which is required by law to carry a certificated second mate;
 (e.) *Or*, one year must have been as master of a cargo-vessel plying in the home trade or extended river limits whilst holding a certificate of competency as master of a fishing-boat or cargo-vessel under 25 tons register;
 (f.) *Or*, one year must have been as master of a vessel of 50 tons register or upwards plying in the home trade or extended river limits whilst holding a certificate of service as master of a vessel of 50 tons register or upwards;
 (g.) *Or*, one year and a half must have been as master of a vessel plying in the home trade or extended river limits whilst holding a certificate of service as master of a vessel under 50 tons register.

61. **Examination in Navigation.**—In addition to the qualifications required of a mate of a home-trade ship, a master will also be required to work the following problems:—

- (a.) To find the latitude by a meridian altitude of the sun.
 (b.) To find the compass corrections by amplitude of the sun, and by time azimuths of the sun or a star, by the aid of Star Azimuth Tables†; and to give written answers to certain practical questions on the subject of the deviation of the compass.
 (c.) To find the position of the ship by two stars at twilight, or by one star combined with the bearing of a distant mountain, headland, or sounding, by the aid of inspection Azimuth and Reduction Tables.

62. **Examination in Seamanship.**—In addition to the qualifications required for the grade of mate, a master will be required to show a knowledge of the following subjects:—

- (a.) How to act in the event of a fire breaking out in the ship.
 (b.) Rescuing the crew of a disabled ship.

* See para. 161.

† The candidate will be allowed to use any tables that will solve the problem within half of a degree, the altitude of the heavenly body not being given.