

stroyer are expert mechanics, specially skilled in some direction. The seamanship required in navigating these vessels, often huddled close together, rushing at the speed of an express train, not infrequently manœuvring at night or in fog, is of the highest order. The strain upon the nerves of the navigator is excessive, and temperance of life is needed as well as skill. In addition to all these, youth is essential; after he is thirty-five and the first edge has gone off his nerve a man has no business upon a torpedo vessel.

3. The crews are small. The later types of sea-going destroyers, known as the "River" and "Tribal" classes from the system of nomenclature adopted for them, have from 60 to 72 men each. The 26-knot vessels which began life as "coastal destroyers" and now are described as "first-class torpedo-boats" have a complement of thirty-five. Smaller torpedo-boats have crews of 15 or 20, and a submarine needs only six or seven men.

As soon as we look at these conditions the difficulties become obvious. These vessels, small, narrow, of low free-board, crowded with machinery, uncomfortable to a degree, lacking in accommodation, are unsuited for the training of recruits or of young officers. They are specialized craft, adapted only for the finished product. Then we must find some occupation for the older men, more especially for the older officers; for sea-going mechanics who are expert enough to hold a place on a destroyer should experience little difficulty in getting work in civil life. We could not keep officers of 40, 50 or 60 years of age on torpedo vessels; apart from the injustice, we should not get full value out of the vessels so commanded. Yet we could not dismiss our officers as soon as they reached thirty-five. There is this further complication, that no naval force could be composed exclusively of men suited to so peculiar and hazardous a service as that of the torpedo flotilla. In short, all of our youngest officers and men, all of our older officers and men, and some of our young officers and men will not