

Where still-water hydrostatic pressure acts on the opposite side of the wall the resulting net pressure on the wall is shown in the lower portion of Fig. 2.17, where the diagram on the left gives the pressure for the

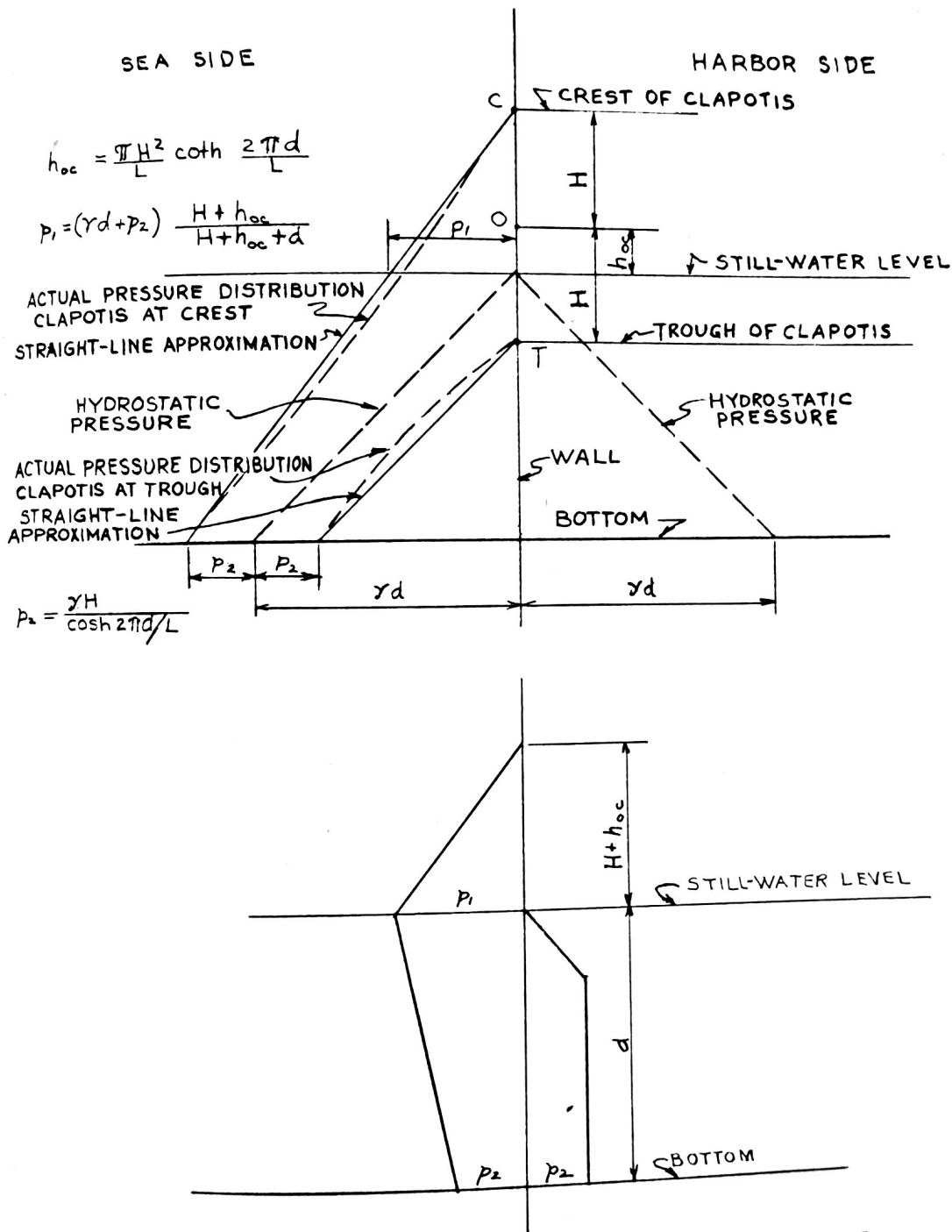


FIG. 2.17 Wave pressure on vertical walls, according to Sainflou.

clapotis at crest position, and the diagram on the right gives the pressure for the clapotis at trough position.

In 1934 D. A. Molitor developed an empirical method of computing wave pressures on a vertical breakwater, using test data gathered in the Great Lakes at the beginning of the century by Captain D. D. Gaillard. The pressure diagram proposed by Molitor is shown in Fig. 2.18 and is constructed as follows. The maximum wave pressure is