

dredgers in exposed places during rough weather, and thus enabling them to carry on their work undisturbed.

A trial of the Brasher invention during the raising of the U.S.S. *Yankee* was described by an eye-witness as follows:—"The heavy breaking seas were powerless to pass the line of air. Before the air was turned on the seas were boarding the ship fore and aft, causing it to grind very much on the rocky bed, and making work very disagreeable. After the air was turned on in the breakwater it was as though the ship was in a lagoon formed by the sea breakwater, while seas were breaking heavily outside."

The success of the system depends on the neutralization of the oscillatory impulse of waves in deep water. Each of the bubbles forming the air screen as it rises to the surface has an explosive action. These collectively disrupt the wave mass, and disturb the continuity of its particles in such a manner that the wave beats out of time, and losing its rhythm, its rolling motion is automatically brought to a deadlock. An ingenious explanation of the action is contained in a letter to *The Engineer*, dated 9th June, 1916. The theory evolved by the writer is that, as the effect of a current of air passing over a rounded surface is to cause some increase of pressure on the windward side and a corresponding reduction of pressure on the leeward side, the emission of a column of air rising from the bed of the sea under pressure upsets the plus and minus surface pressure conditions set up by the wind passing over wave crests, resulting in these becoming self-destructive, with the effect of stilling the forces of oscillation.