

the map [pl.29] there is a similar cobblestone ridge at about 800 feet elevation (aneroid). Over all the northern half of the quadrangle these isolated deposits are separated by an interval of about 100 feet from the next high mark of wave action, beginning the record along the international boundary at about 620 feet. In the southeastern half of the sheet, wave-made traces are visible from the top of Cobblestone hill down to the low ground on the east of the area.

Beginning on the international boundary in the region of Armstrong's Bush, wave-heaped materials begin to appear at about 540 feet in a closely crowded series of ridges of angular shingle extending down to about 360 feet. Southward the upper limit of this group falls off in elevation and in the vicinity of Wood Falls on the Big Chazy the highest clear beach is found at 500 feet. In the southern part of the sheet this lower series is not distinguishable from the upper series in any manner which I have been able personally to devise.

The accompanying map [pl.29], shows the location and extent of the more distinct traces of these and other beaches.

*Shore lines about Covey hill, Canada.* Reference has already been made to the occurrence of a well defined beach taken by Mr Gilbert to be the upper marine limit on the north side of Covey hill at an elevation of 450 feet [see p.162]. On plate 25, I have attempted to delineate the position of this beach for a portion of its extent. It is a very strongly developed beach for this district with well worn pebbles on its seaward face. Below it occur others toward Ste Antoine and Vicars. Accepting the terraces which come above this beach as made by waters escaping along the ice front, this 450 foot beach is the highest one found to extend from the beaches of the Champlain valley around the northern face of Covey hill. Its westward extension is known at a number of points near Sun, East Constable, Potsdam and places still farther westward. But in the district southwest of Malone the ground becomes so much broken up in the form of short hills that tracing it is difficult without a good topographic map as a guide to localities in which wave action should be looked for.

The vicinity of Covey hill is of critical interest in the solution of the problems relating to all the shore lines of the Champlain